NOAA Technical Memorandum NMFS-AFSC-258

# Results of the 2012 Eastern Bering Sea Upper Continental Slope Survey of Groundfishes and Invertebrate Resources

by
G. R. Hoff

**U.S. DEPARTMENT OF COMMERCE**
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
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## ABSTRACT

The results of the 2012 Alaska Fisheries Science Center's (AFSC) bottom trawl survey of the groundfish and invertebrate resources of the eastern Bering Sea upper continental slope (EBSS) are presented. The 2012 EBSS survey is the fifth standardized biennial groundfish bottom trawl survey of this region.

One-hundred eighty-nine successful survey bottom trawls were conducted from 200 to 1,200 m depth on the eastern Bering Sea slope. The survey area extended from Unalaska and Akutan Island in Alaska (54° N) to the U.S-Russian maritime boundary at 61° N. Sampling was stratified by six subareas running south to north and by five depth strata within each subarea. Stations were chosen randomly and target sampling density was proportional to the area ($km^2$) in each subarea and depth stratum. Mean sampling density was approximately one tow per 172 $km^2$.

This report provides estimates of biomass in metric tons (t), population number, and catch per unit effort (CPUE; no./ha and kg/ha) for all taxa identified on the survey. Size frequencies (42 species) and CPUE distribution plots (41 species) are presented for the most abundant species or species of commercial interest. The five fish species with the greatest survey biomass were giant grenadier (*Albatrossia pectoralis*), Pacific ocean perch (*Sebastes alutus*), arrowtooth flounder (*Atheresthes stomias*), popeye grenadier (*Coryphaenoides cinereus*), and walleye pollock (*Theragra chalcogramma*).

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# INTRODUCTION

The Alaska Fisheries Science Center's (AFSC) Resource Assessment and Conservation Engineering Division (RACE) conducted a bottom trawl survey from 4 June to 28 July 2012 to assess the groundfish and invertebrate resources on the eastern Bering Sea upper continental slope (EBSS). The survey area extended from Unalaska and Akutan Islands to the U.S.-Russian Maritime Boundary near the International Date Line (166° E to 180° W) at depths from 200 to 1,200 m.

The 2012 EBSS trawl survey is the fifth in this series of biennial groundfish surveys that incorporate the AFSC's latest sampling technologies and protocols for survey design, catch data gathering, species identification, and net mensuration monitoring. Eastern Bering Sea Slope surveys were conducted in 2002, 2004, 2008, and 2010 and the results are detailed in NOAA Technical Memoranda (Hoff and Britt 2003, 2005, 2009, 2011). The slope survey was not conducted in 2006 due to budget limitations. Prior to the current standardized EBSS biennial surveys (2002, 2004, 2008, 2010, 2012) a pilot survey was conducted in 2000 which tested two versions of the Poly Nor'eastern bottom trawl gear (mud-sweep and rockhopper footropes). The pilot study showed that the Poly Nor'eastern net with mud sweep gear was more efficient and robust for sampling the EBSS survey area bottom than the rockhopper gear (Mark Wilkins, AFSC, pers. comm.).

Triennial EBSS bottom trawl surveys were conducted from 1979 to 1991, but were not standardized surveys which used inconsistent sampling gears, methodologies, and designs. The results from these surveys have been summarized in numerous data reports (Bakkala et al. 1985a, Bakkala et al. 1985b, Sample et al. 1985, Walters et al. 1988, Bakkala et al. 1992, Goddard and Zimmermann 1993). Comparisons between the post-2000 surveys and those conducted from 1979 to 1991 are not directly comparable to the current AFSC EBSS survey time series.

This report summarizes the 2012 EBSS survey design and sampling gear, as well as survey logistics and personnel participating in this survey. Estimates of abundance, distribution, and size composition are presented for abundant and commercially important species. The purpose of this report is to provide information on the biological resources encountered to the scientific community, the fishing industry, and the general public. The results presented herein represent a comprehensive report prepared from the EBSS survey conducted in 2012. For additional information from this survey please contact the author (G.R. Hoff email: jerry.hoff@noaa.gov or R.R. Lauth email: bob.lauth@noaa.gov).

## METHODS

### Survey Area and Sampling Design

The EBSS survey area was divided into six geographic subareas (1-6) running south to north along the upper continental slope (Fig. 1) based on distinct bathymetric types and underwater features: broad low slope areas, canyon areas, and steep slope inter-canyon faces. Subareas 1 and 6 consist of broad low slope areas with wide bathymetric contours in the 200-600 m depth range followed by a gradual slope to 1,200 m. Subareas 2 and 4 consist of Pribilof and Zhemchug canyons, respectively, which are characterized by semi-enclosed basins with steep walls and narrow bathymetric contours below 600 m. Subareas 3 and 5 are steep slope inter-canyon "faces" with narrow bathymetric contours throughout most depths.

Geographic subareas were stratified by depth every 200 m from 200 to 1,200 m, resulting in five depth strata for each geographic subarea (200-400 m; 400-600 m; 600-800 m; 800-1,000 m; 1,000-1,200 m). The total area of each depth stratum ($km^2$) was calculated using known bathymetry contour lines (Table 1) and stratum area was used to determine sampling density. Two-hundred survey stations were selected using a stratified random sampling design from a

pool of over 400 successful stations completed between 2000 and 2010 as well as additional stations added randomly in most strata. Stratum sampling densities ranged from one haul per 105.93 $km^2$ to one haul per 235.86 $km^2$, with a mean sampling density of one haul per 172.88 $km^2$. Sampling densities varied due to difficulties in successfully completing all planned stations in some deep strata due to areas with untrawlable bottom.

## Survey Agenda and Personnel

The EBSS survey began on 4 June 2012 near Bering Canyon and concluded on 28 July 2012 in the south-western part of the survey area. Mobilization and demobilization of the survey took place in Dutch Harbor, Alaska. There was one mid-survey exchange of scientific crews in St. Paul Island/Dutch Harbor around 4 July 2012. Research personnel for the survey consisted primarily of AFSC staff and graduate students (Table 2).

## Vessel, Scientific Gear, and Procedures

The FV *Vesteraalen*, a 38-m commercial stern trawler powered by twin engines with 1,725 continuous horsepower, was chartered for the survey. Electronic navigation and fishing equipment on the vessel included global positioning system (GPS) receivers, video position plotters, radar, single sideband and VHF transmitter-receivers, an EC-150 color video depth sounder, and auto-pilots. The vessel was operated by Captain Tim Cosgrove during the entire slope survey. A four-member crew aided in the operation of the vessel and in the use of the survey fishing gear.

The standard RACE Division fishing gear included trawls, bridles, and trawl doors. A Poly Nor'eastern high-opening bottom trawl equipped with mud-sweep roller gear was used to sample all stations (Fig. 2). This sampling trawl had a 27.2 m headrope with twenty-one 30 cm

floats and a 24.3 m long-link chain fishing line attached to a 24.9 m footrope. The body of the net was constructed of 127 mm stretched-mesh polyethylene netting, with 89 mm stretched-mesh polyethylene netting in the codend, and a 32 mm stretched-mesh nylon codend liner. The mud-sweep roller gear was constructed of 203 mm solid rubber disks strung over 16 mm high-tensile chain. The net was fished with 1.83 m × 2.75 m (6 ft × 9 ft; 1,000 kg) steel V-doors rigged with four-point bridles to enhance their stability at slow towing speeds and 55 m bridles between the doors and wingtips. This trawl is identical to the standard trawl used for the RACE Division's West Coast Upper Continental Slope survey (Lauth 2000). During fishing, the height and width of the trawl were measured using a Scanmar (Scanmar, Asgardstrand, Norway) net measurement system. The GPS system recorded tow duration, distance fished, and precise location. A tilt sensor (bottom contact sensor) attached to the footrope recorded bottom contact, which was used to determine the precise beginning and end of the tow. Bottom depth and water temperature profiles were recorded using a Sea-Bird SBE-39 microbathythermograph (Sea-Bird Electronics Inc., Bellevue, Washington). All net configuration measurements were recorded electronically as well as on paper. The Haul Log (Appendix C) details net performance for each tow. Table 3 lists the specific models, versions, serial numbers, and RACE numbers for most sampling tools used for this survey.

Each station was surveyed with an echosounder over a 1.5-2.0 nautical mile (nmi) horizontal distance. A site was considered trawlable when the depth changed less than 50 m over the 2-nmi transect and there were no detectable obstacles in the trawl path. Trawl operations followed those outlined in the NOAA survey protocols document (Stauffer 2004). The targets for standard tow speed and tow duration were 2.5 knots and 30 minutes at all depths. For each tow the following data were recorded: date, time, latitude, longitude, gear depth, surface temperature, bottom temperature, water column temperature profile, net spread, net height, and bottom

contact. At the end of each tow, haul data were plotted and examined for appropriate distance, bottom contact, and depth range. Performance for each tow was given a numerical code: successful tows recieved a positive code, whereas unsuccessful tows received a negative code. In general, zero or a positively coded tow was considered valid and used for survey abundance estimates, while a negatively coded tow was not used in the analysis.

Catch Processing and Collection of Biological Data

Catches were sorted, weighed, and enumerated for all species of fishes and invertebrates. The catch was processed in one of two ways: either by sorting the entire catch and weighing each species in aggregate or by weighing the net codend and discarding the predominant species (except for a weighed and sexed random length frequency sample) and the rest of the catch sorted and weighed by species. Random samples of species that were designated for biological data collection were set aside after weighing. Total weight and numbers for each species were recorded onto a paper on-deck catch form. In cases where individuals could not be reasonably enumerated (i.e., corals, sponges, bryozoans, ascidians), only total weight was recorded. For large numbers of an individual species in a single haul, the total number was extrapolated from subsample weight and count of 50-200 individuals. In most cases fish length frequency subsamples were used for extrapolation of the total haul count for individual species.

A random subsample of 100-150 fish, depending on the size range for the species, was selected for length frequency measurements. The sex of each individual was determined by internal examination of the gonads or by external characters (e.g., claspers for elasmobranchs), and specimens were sorted into baskets of males, females, or undetermined sex. Fork length (FL) was measured for most fishes, except for elasmobranchs which were measured to total length (TL) and macrourids to preanal-fin length (PAFL). Fishes and cephalopods were measured to the

nearest centimeter on a bar-coded length board using a Juniper LS 600 Polycorder, which uses a bar-code reader wand and species-specific numerical codes. Data from polycorders were downloaded into a database, examined for accuracy, and paper copies printed. All crab species were measured to the nearest 1.0 mm using vernier calipers and recorded on an on-deck paper form.

Otoliths (age structures) were collected from commercially and ecologically important fish species utilizing a stratified sampling regime based on geographic subarea and length. Otoliths of each species were collected from 1 to 3 specimens/cm/sex/subarea with the exception of rougheye rockfish (*Sebastes aleutianus*) and blackspotted rockfish (*S. melanostictus*), for which there was an attempt to collect otoliths from all fish encountered. At the time of otolith collection, the sex, fork length (cm) or pre-anal fin length (PAFL), and weight (kg) of each specimen were recorded on paper forms.

Stomach samples were collected from selected fish species for the AFSC's Resource Ecology and Ecosystem Modeling Program. Many commercial and ecologically important species were targeted for stomach sampling including walleye pollock (*Theragra chalcogramma*), Kamchatka flounder (*Atheresthes evermani*), Greenland turbot (*Reinhardtius hippoglossoides*), and Pacific cod (*Gadus macrocephalus*). Specimens were chosen at random and only intact stomachs (non-regurgitated) were chosen for collection. Stomachs were excised and preserved in 10% buffered formalin at sea for later examination. Species, haul number, fish length, weight, and sex were recorded on paper forms at the time of collection.

Voucher specimens were collected from species that are rare, of taxonomic interest, or were unidentifiable at the time of encounter. Collections were labeled with a cruise number, vessel number, haul number, species, voucher number, preservative, and collector's name or initials. Voucher specimens were preserved in 10% buffered formalin (most fishes and non-

calcareous invertebrates) or 95% ethanol (calcareous invertebrates). A few specimens were stored frozen and returned to Seattle, Washington. Additional biological samples were collected for study per investigators' requests. Table 4 details the investigators, samples collected, and study purposes.

## Abundance Estimates

Catch per unit effort (CPUE) was calculated by dividing catch weight or number for each species by the estimated area swept of the trawl. CPUE is expressed in kilograms per hectare (kg/ha) and number of individuals per hectare (no./ha). Population and biomass (metric tons) estimates were calculated using mean CPUE and extrapolated into the area for each stratum and subsequently summed for all strata. Fish length frequencies were used to estimate the proportion of fish at each length interval weighted by the CPUE (number of fish/ha) and then expanded to the depth strata population. For details on these methods see Wakabayashi et al. (1985) and Alverson and Pereyra (1969).

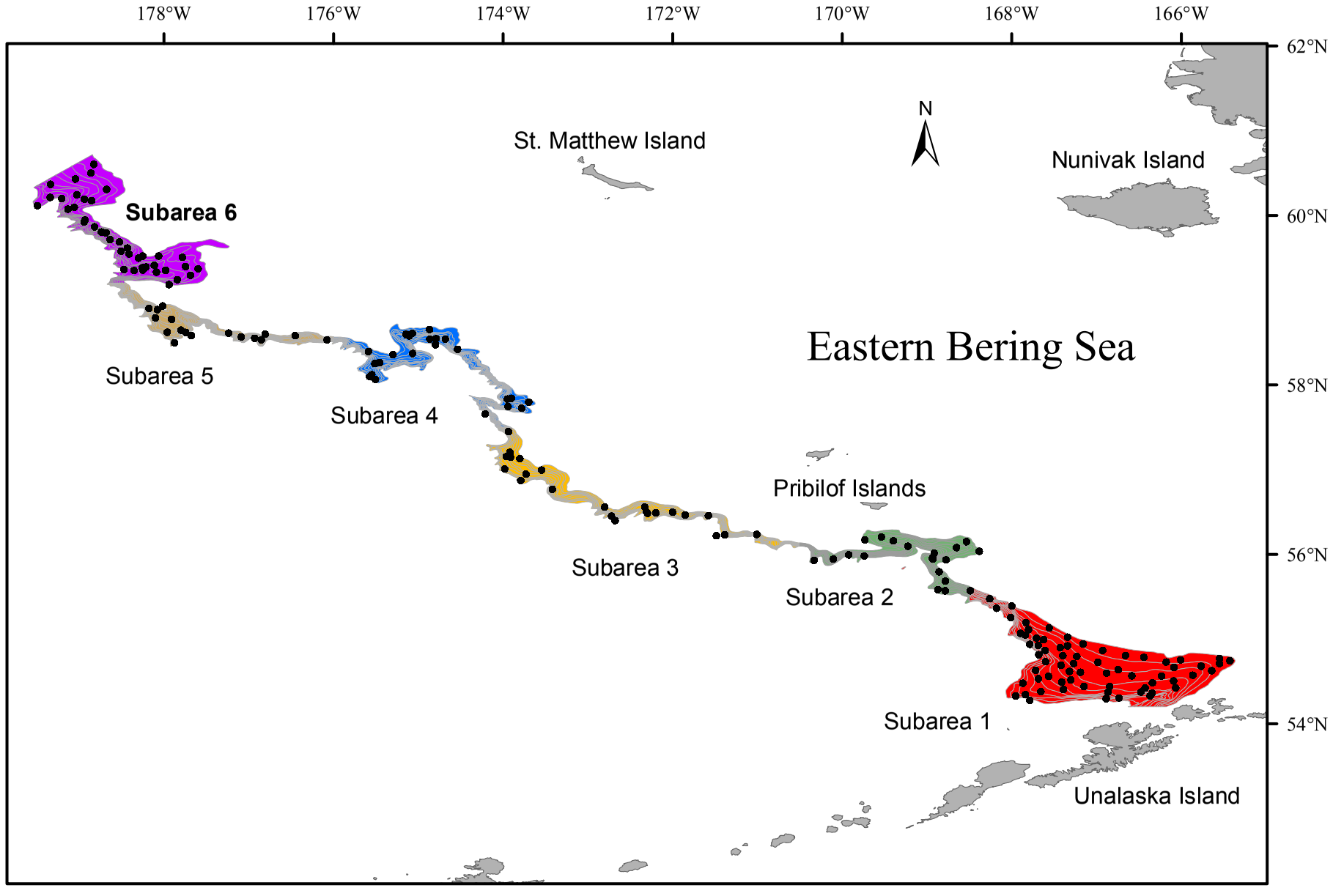


**Figure 1.** - - Map of standard survey area and the six subareas. Indicated are the 186 successful trawl stations (black dots) completed during the 2012 EBSS survey.

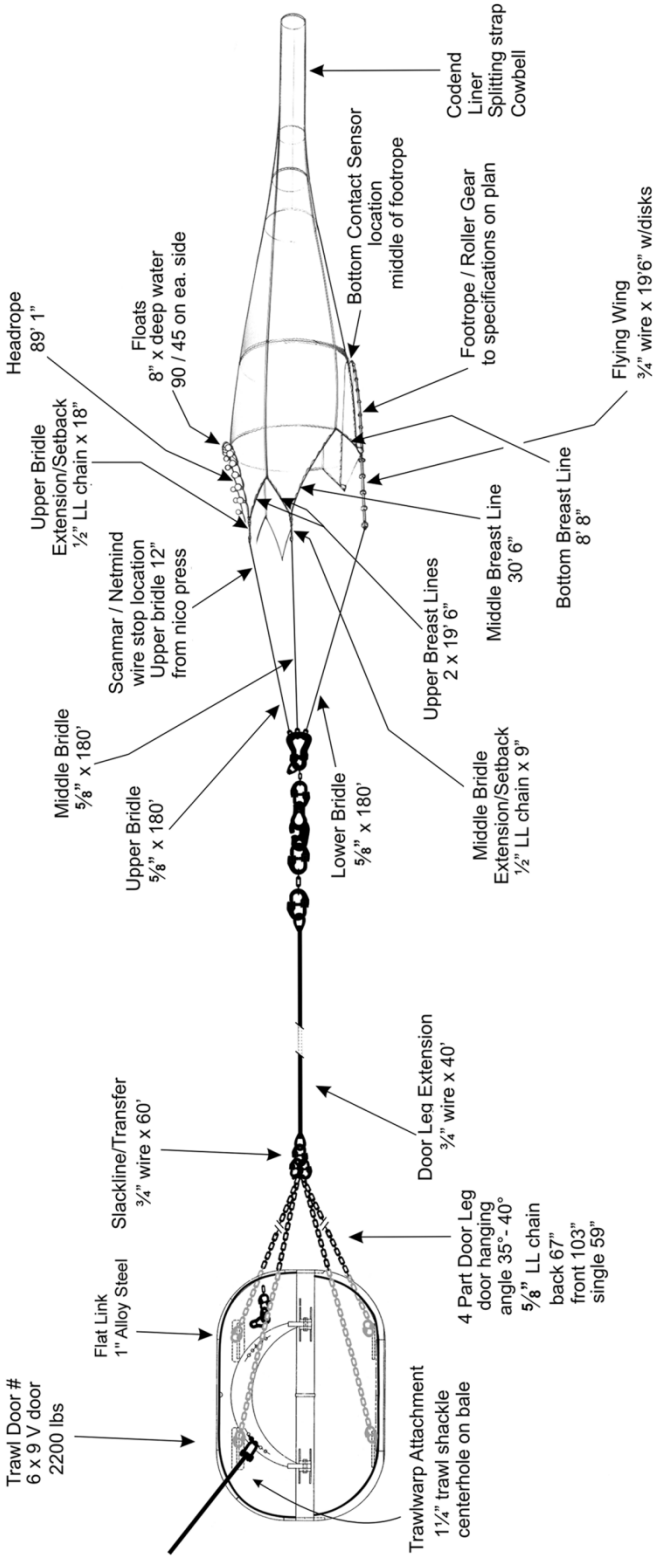


**Figure 2a. - -** Diagram of the Poly Nor'eastern high-rise opening bottom trawl net used during the 2012 EBSS survey. Diagram includes a general schematic of the trawl doors, rigging, and trawl configuration.

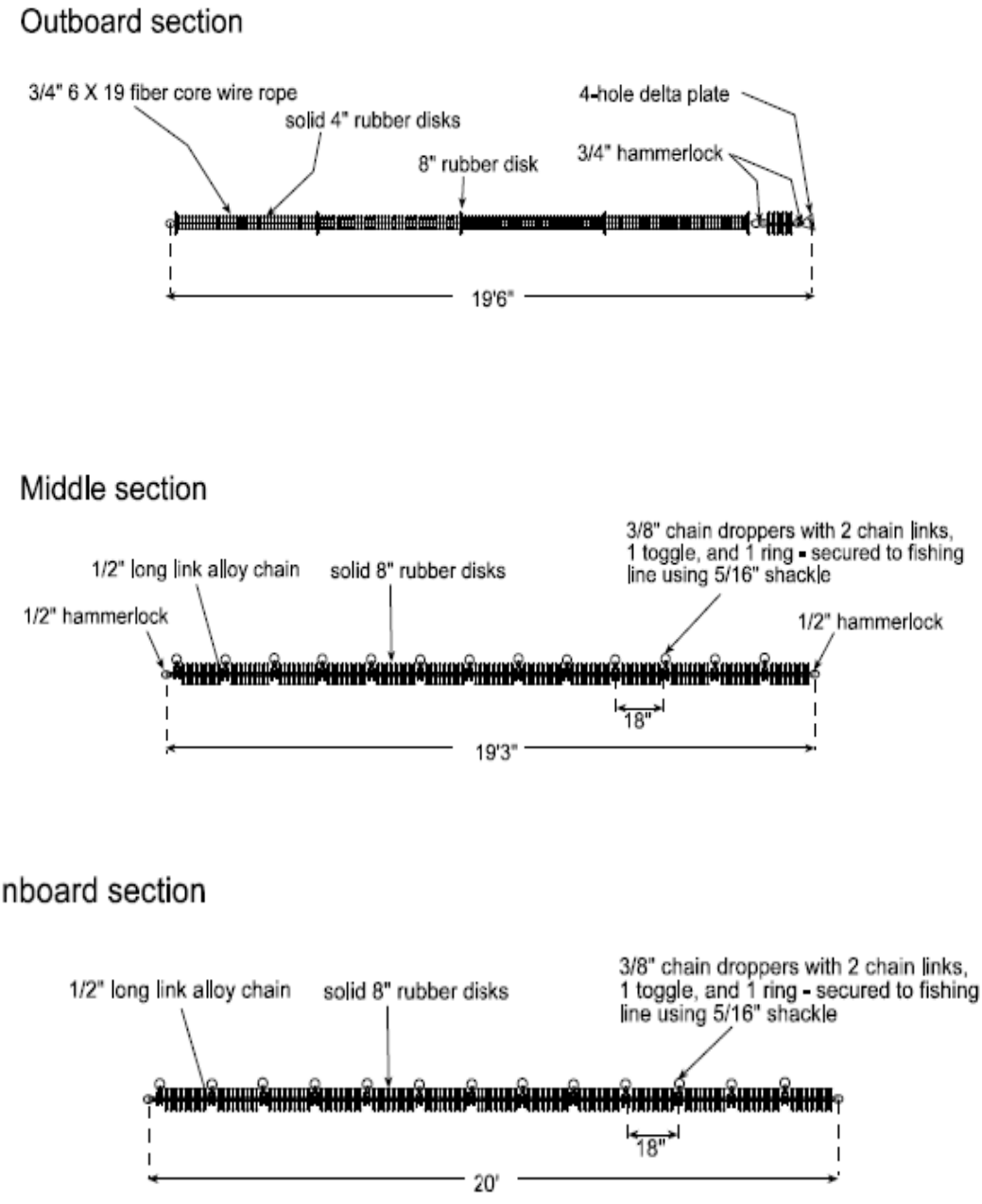


**Figure 2b.** - - Detailed diagram of the ground sections of the Poly Nor'eastern net used during the 2012 EBSS survey.

-

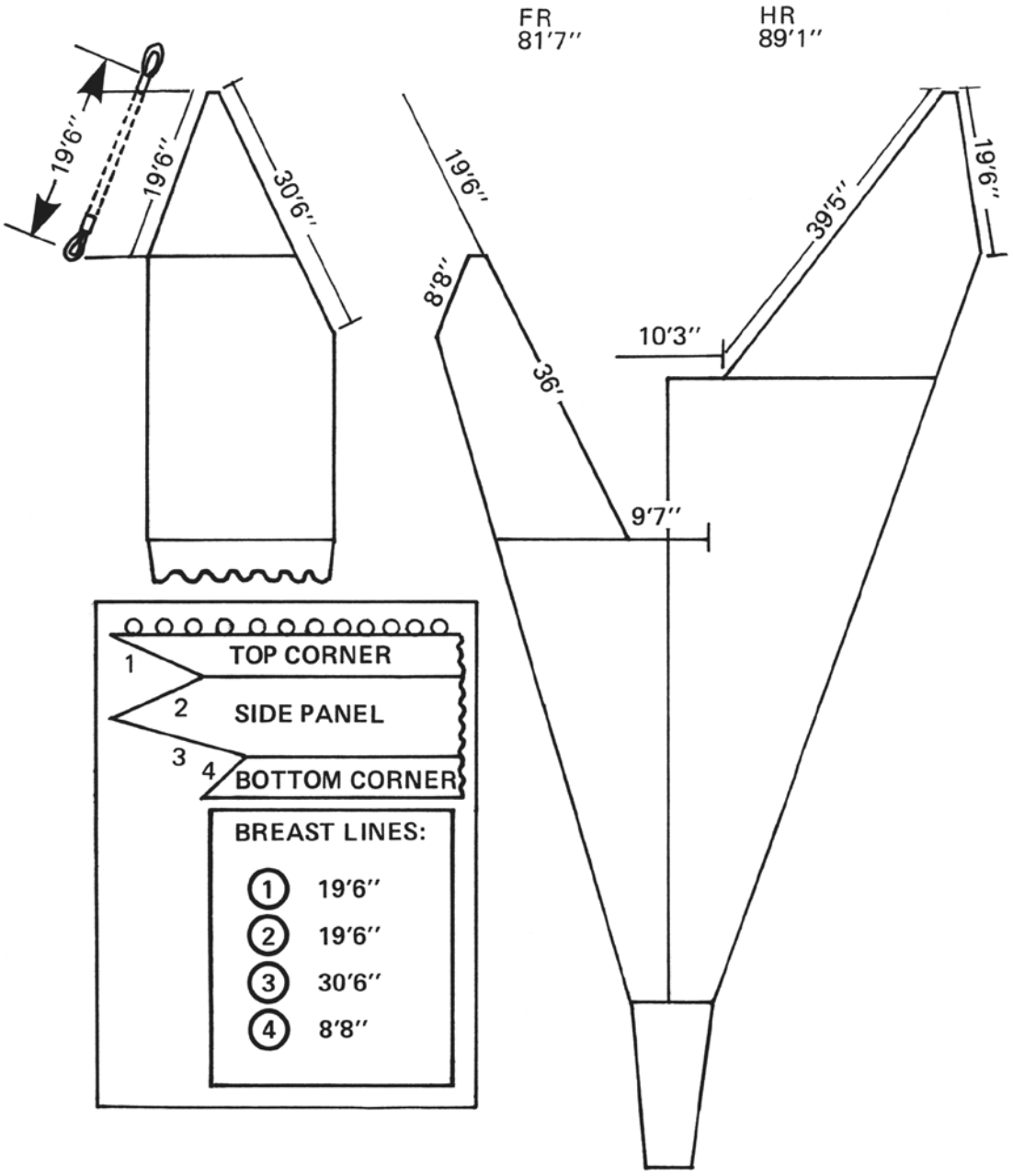


**Figure 2c.** - - Detailed diagram and dimensions of the Poly Nor'eastern net used during the 2012 EBSS survey.

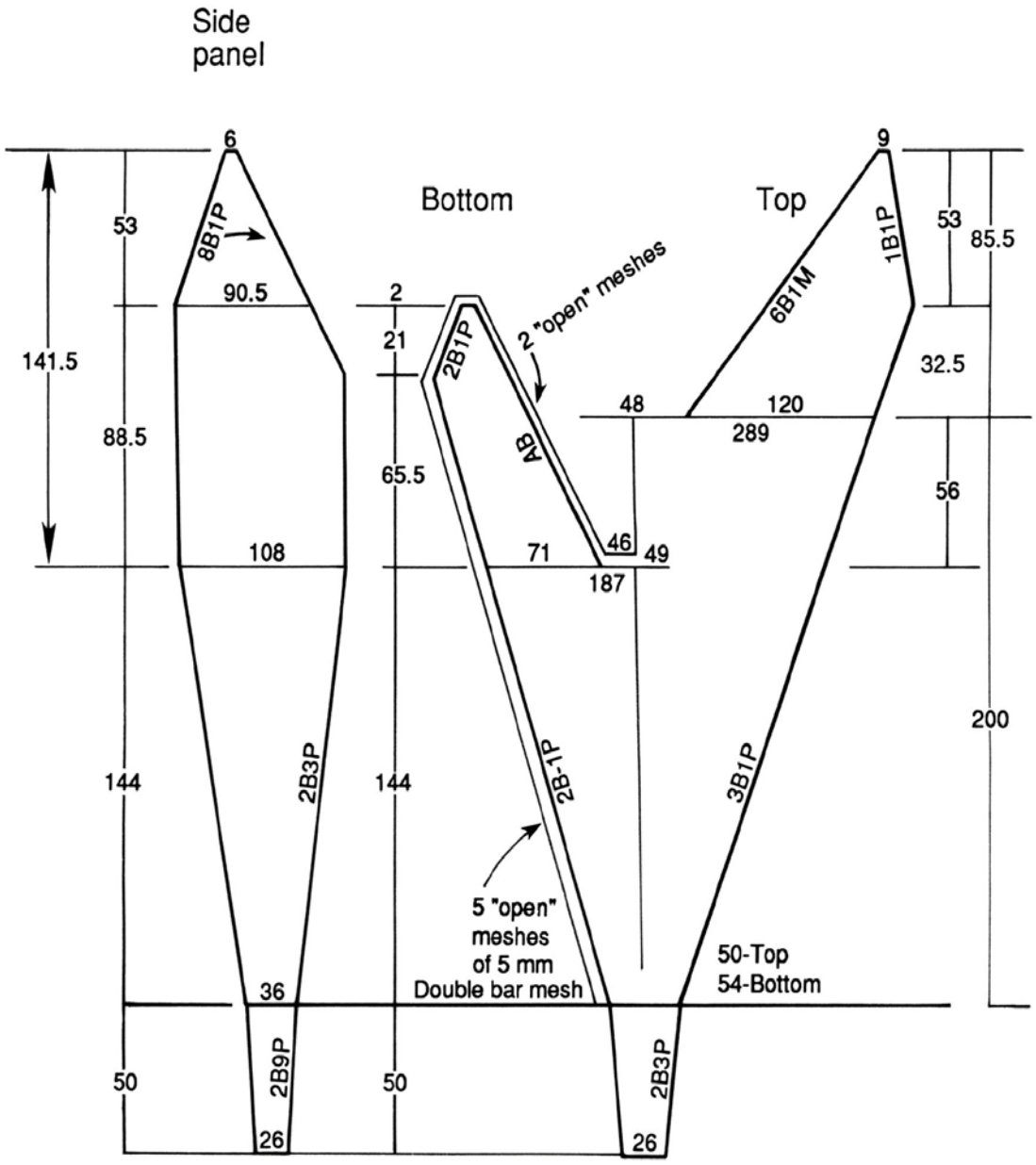


**Figure 2d.** - - Detailed diagram and dimensions of the Poly Nor'eastern net used during the 2012 EBSS survey.

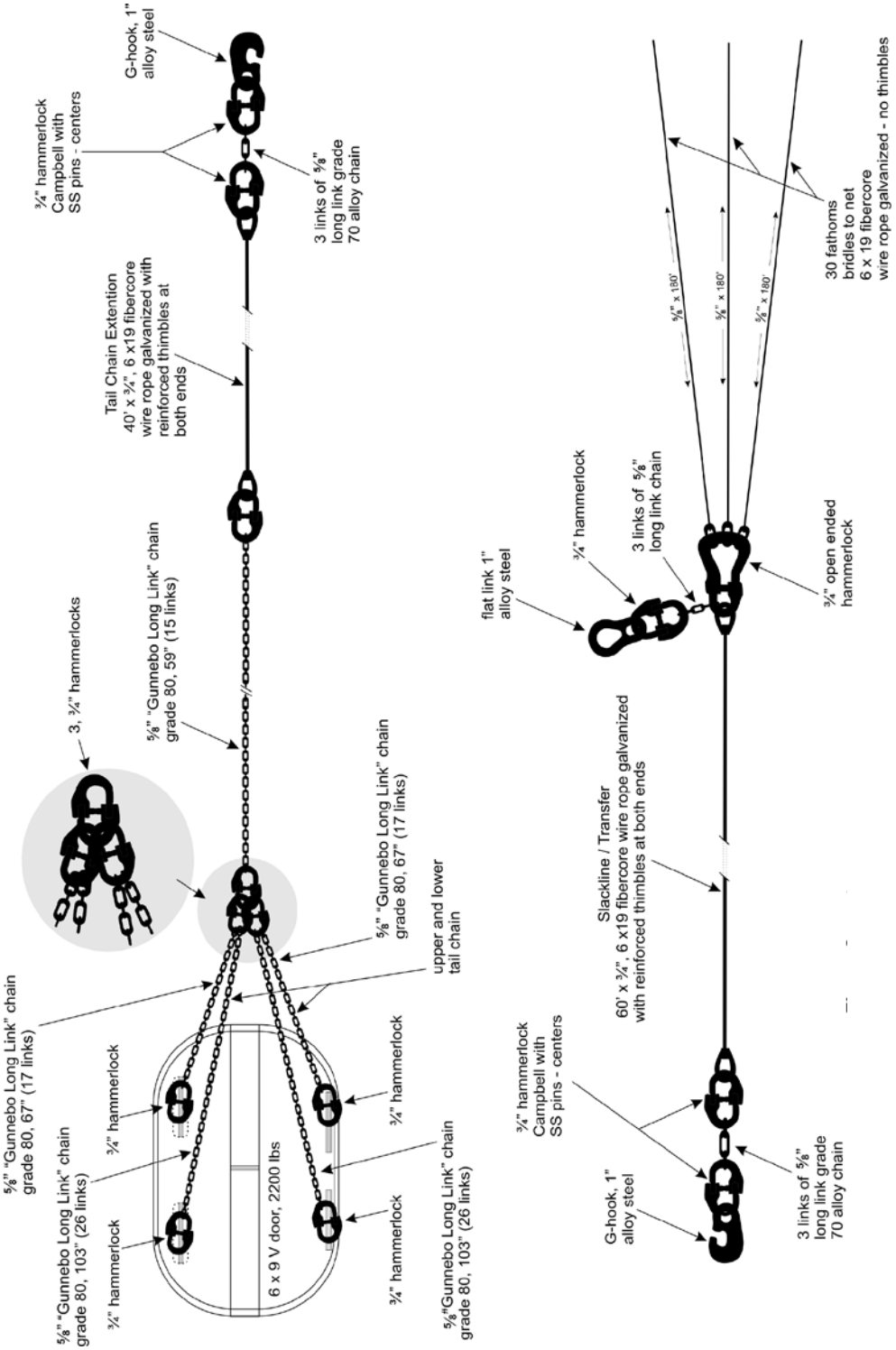


**Figure 2e. -** - Detailed diagram of the door rigging tail chain, slackline and bridle configuration of the Poly Nor'eastern net used during the 2012 EBSS survey.


**Figure 2f. - -** The bottom contact sensor and its footrope attachment configuration to the ground gear used during the 2012 EBSS survey.

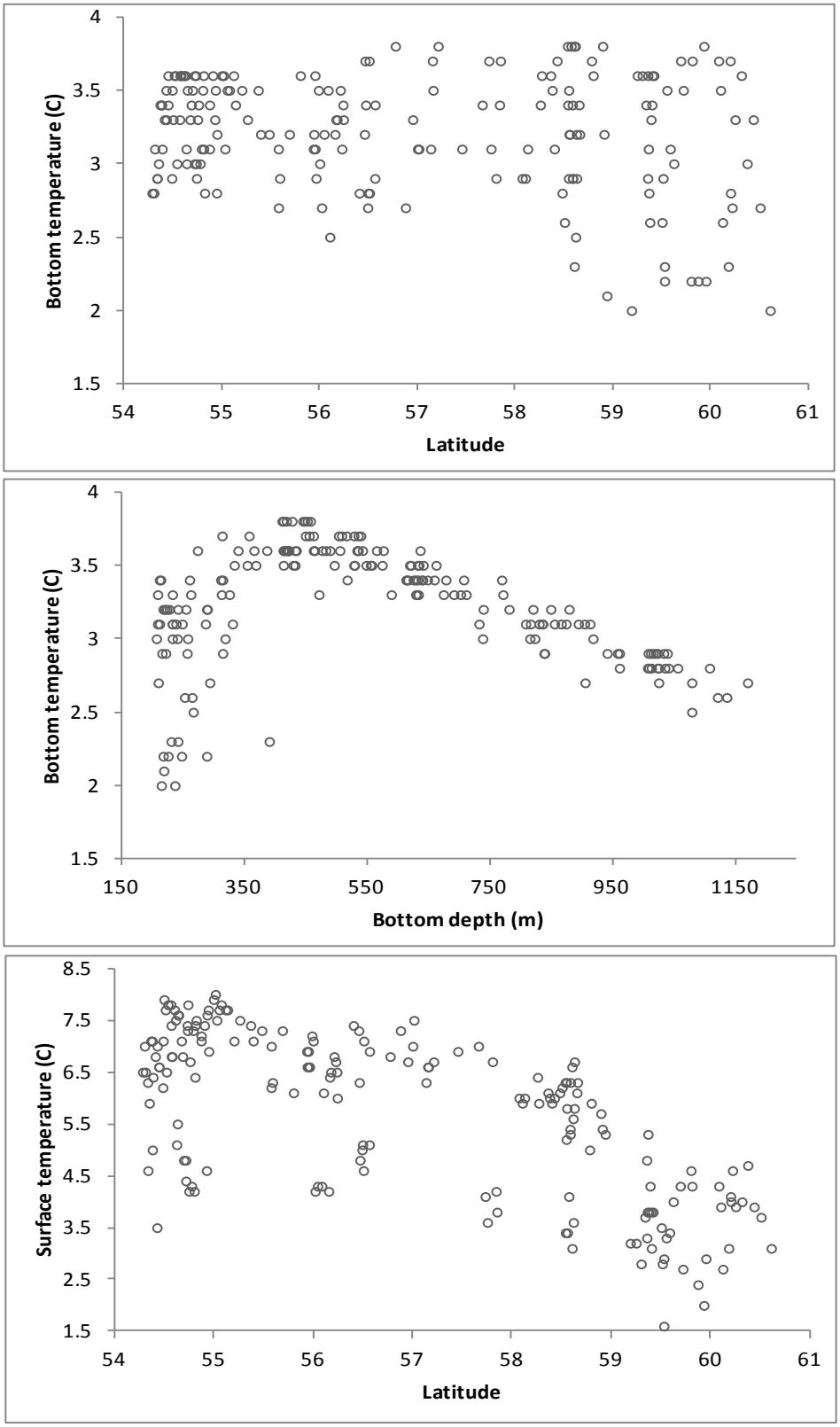


**Figure 3**. - - Relationship between temperature, latitude (°N), and bottom depth collected from trawl stations during the 2012 EBSS survey.

**Table 1. - -** Sampling effort and density for each subarea and depth stratum completed during the 2012 EBSS survey.

| Subarea | Depth stratum (m) | Stratum area estimate ($km^2$) | Effort target (%) | Hauls completed (n) | Effort achieved (%) | Sampling density ($km^2$/haul) |
|---|---|---|---|---|---|---|
| | 200-400 | 4,012.41 | 12.26 | 21 | 11.11 | 191.07 |
| | 400-600 | 4,062.77 | 12.42 | 23 | 12.17 | 176.64 |
| **1** | 600-800 | 1,741.66 | 5.32 | 10 | 5.29 | 174.17 |
| | 800-1,000 | 1,354.74 | 4.14 | 7 | 3.70 | 193.53 |
| | 1,000-1,200 | 1,106.89 | 3.38 | 6 | 3.17 | 184.48 |
| | 200-400 | 1,157.64 | 3.54 | 6 | 3.17 | 192.94 |
| | 400-600 | 705.08 | 2.15 | 4 | 2.12 | 176.27 |
| **2** | 600-800 | 591.27 | 1.81 | 3 | 1.59 | 197.09 |
| | 800-1,000 | 552.73 | 1.69 | 3 | 1.59 | 184.24 |
| | 1,000-1,200 | 535.67 | 1.64 | 3 | 1.59 | 178.56 |
| | 200-400 | 903.78 | 2.76 | 5 | 2.65 | 180.76 |
| | 400-600 | 886.11 | 2.71 | 5 | 2.65 | 177.22 |
| **3** | 600-800 | 910.26 | 2.78 | 5 | 2.65 | 182.05 |
| | 800-1,000 | 732.35 | 2.24 | 4 | 2.12 | 183.09 |
| | 1,000-1,200 | 675.52 | 2.06 | 4 | 2.12 | 168.88 |
| | 200-400 | 1,236.27 | 3.78 | 7 | 3.70 | 176.61 |
| | 400-600 | 730.35 | 2.23 | 5 | 2.65 | 146.07 |
| **4** | 600-800 | 693.95 | 2.12 | 5 | 2.65 | 138.79 |
| | 800-1,000 | 707.59 | 2.16 | 3 | 1.59 | 235.86 |
| | 1,000-1,200 | 662.42 | 2.02 | 3 | 1.59 | 220.81 |
| | 200-400 | 423.71 | 1.29 | 4 | 2.12 | 105.93 |
| | 400-600 | 425.73 | 1.30 | 4 | 2.12 | 106.43 |
| **5** | 600-800 | 431.83 | 1.32 | 3 | 1.59 | 143.94 |
| | 800-1,000 | 551.99 | 1.69 | 3 | 1.59 | 184.00 |
| | 1,000-1,200 | 570.14 | 1.74 | 3 | 1.59 | 190.05 |
| | 200-400 | 2,595.79 | 7.93 | 16 | 8.47 | 162.24 |
| | 400-600 | 1,705.76 | 5.21 | 11 | 5.82 | 155.07 |
| **6** | 600-800 | 917.49 | 2.80 | 6 | 3.17 | 152.92 |
| | 800-1,000 | 645.17 | 1.97 | 4 | 2.12 | 161.29 |
| | 1,000-1,200 | 496.42 | 1.52 | 3 | 1.59 | 165.47 |
| **Totals** | **All subarea & depths** | **32,723.49** | **100** | **189** | **100** | **mean 172.88** |

**Table 2**. - - Vessel itinerary and scientists participating in the 2012 AFSC EBSS survey.

| Name | Survey Position | Affiliation |
|---|---|---|
| **Leg 1: 6/4 – 7/2** | | |
| Gerald Hoff | Chief Scientist | AFSC |
| Duane Stevenson | Fishery Biologist | AFSC |
| Jared Guthridge | Fishery Biologist | ASLC |
| Ann Edwards | Fishery Biologist | AFSC |
| Nancy Roberson | Fishery Biologist | AFSC |
| **Leg 2: 7/2- 7/28** | | |
| Gerald Hoff | Chief Scientist | AFSC |
| Stan Kotwicki | Fishery Biologist | AFSC |
| Saul Rico | Fishery Biologist | UW |
| Pam Goddard | Fishery Biologist | AFSC |
| Grace Hutton | Fishery Biologist | NEU |
| Michelle Degnin | Fishery Biologist | UW |

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*ASLC-Alaska SeaLife Center, Seward AK.
*UW-University of Washington, Seattle WA.
*NEU-Northeastern University, Boston MA.

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# RESULTS

## Haul, Catch, and Biological Data

During the 2012 EBSS survey, 189 successful tows were completed and used for abundance estimates (Fig. 1). Six tows were considered unsatisfactory in meeting survey standards and in most cases the location was resampled to obtain a successful tow at that station (see Appendix B).

The EBSS survey sampling was designed to distribute trawling effort in proportion to the total area ($km^2$) of each stratum. A comparison of the planned total effort distribution by stratum to that actually achieved is shown in Table 1. In general, sampling effort in the deepest strata (1,000-1,200 m) was under-represented due to the difficulty in finding trawlable grounds. Shallow strata more commonly received the prescribed sampling density, where on average each tow represented 172.88 $km^2$ of area. The Haul Log (Appendix C) details date, exact location, depth of all hauls attempted, net parameters during the tow, environmental conditions, and catch weights for all hauls attempted.

Bottom temperatures recorded during the survey ranged from 2.0 ºC to 3.8 ºC and increased with depth from 200 m to 400 m depth, and decreased from 400 m to 1,200 m depth (Fig. 3). Surface temperatures ranged from 1.6 ºC to 8.0 ºC, and were related to latitude, with cooler surface waters at higher latitudes. Bottom temperatures showed no relationship with latitude.

Approximately 136 fish species and 195 invertebrate species were identified during the 2010 EBSS survey. The actual number of species encountered may be slightly higher or lower given inadequate field identification characteristics for some species. Tables 5a and 5b list all species of fishes and invertebrates encountered and identified on the 2012 EBSS survey

alphabetized by common name and scientific name, respectively.

The giant grenadier (*Albatrossia pectoralis*) represented the largest estimated biomass on the 2012 EBSS survey followed by Pacific ocean perch (*Sebastes alutus*), and arrowtooth flounder (*Atheresthes stomias*). The most abundant fish species was the popeye grenadier (*Coryphaenoides cinereus*). The deep sea papillate cucumber (*Pannychia moseleyi*) had the largest estimated biomass for invertebrates and the brittle star (*Ophiacantha normani*) was the most abundant. Table 6 lists all species encountered during the survey in descending order of total weight, with details on the depth distribution and the frequency of occurrence for each species. Tables 7 and 8 detail the biological data collected for selected species.

Population, biomass, and CPUE estimates and variance of the estimates were calculated for every species encountered on the 2012 EBSS survey and are presented in Table 9. The estimates are reported by: shallow strata (200-600 m), deep strata (600-1,200 m), and all strata combined.

## Distributions, Size Compositions, and Abundance Estimates

Abundance estimates, population size estimates, CPUE distribution plots, and estimates of population length frequencies are presented in Tables 10-52 and Figures 5-88 for 43 of the most abundant and commercially important fish and invertebrate species. Abundance estimates were calculated for each subarea and each 200 m stratum within each subarea, and all subareas and strata combined. CPUE distribution plots represent the abundance of the species for each haul. Fishes are presented in phylogenetic order (Nelson 1994).

**Table 3. - -** Details of sampling and data recording gear used during the 2012 EBSS survey.

| Net & mensuration gear | Data type/function | Model/version/serial # |
|---|---|---|
| Poly Nor'Eastern trawl | Research sampling tool | Net #15 Hauls 1-51 Net #11 Hauls 52-100<br>Net#25 Hauls 101-153 Net #16 Hauls 154-195 |
| Doors | Spread the net | Doors # 885 Hauls 1-195 |
| Vessel skipper and trawl master | Conduct trawling operations | Tim Cosgrove Hauls 1-195 |
| Scanmar height sensor | Measure net height | Model HC4-HT60 Serial #'s T-1268, T-1340 |
| Scanmar slave spread sensor | Measure net spread | Model MTR serial # 4295, 4190 |
| Scanmar master spread sensor | Measure net spread | Model HC4 serial # A2495, A3654 |
| Scanmar receiver cabinets | Spread and height signal | Model 4002 RSST 946, 1400 |
| Scanmar hydrophone | Spread and height signal | |
| Scanmar program | Records data input from net mensuration gear | AFSC (menu) version 5.8 Hoboware Lite-2.7.2, Convert-5.1, Haulpos-8.4, Haultime-6.83, Scangraf-3.54, Scanplot-13.0, SBELog-1.8, Setclock-3.31, Speedplot-2.42 |
| Vessel depth sounder | Record depth soundings | Simrad ES60 software 1.5.2.77 1998 |
| U.S. GlobalSat Mr-350 GPS | Determine latitude and longitude | 8514 |
| SeaBird SBE-39 V1.8 | Depth and water temperature | Serial # 1438, 1002, 853, 996 |
| Bottom contact sensor (HOBO Pendandt G accelorometer) | Record footrope bottom contact | Serial # 1252078 Hauls 1-101<br>Serial # 1252077 Hauls 102-195 |
| Olympic wire counter | Measure trawl cable | Olympic wire counter 750-N cable meter #506 |

| Catch processing | Data type/function | Model/version/serial # |
|---|---|---|
| Marel basket scale | Weigh baskets of catch | Model 1100 Type U-2 |
| Marel specimen scale | Weigh individual specimens | Model 2000 Type M60 |
| Measurement Systems International (MSI) load cell | Weigh cod end with catch | Model 4300 |
| Catch data entry program | Onboard catch database | Written in Access 2003 AFSC version no. 20090324 |
| Juniper systems LS 600 Polycorder | Record fish length data | Models JS600, PC602 |
| Dell computer | Data recording | Dell Models 620, 745 |
| Laser printers | Produce hard copy of data | HP P1-006 |
| Digital camera | Photograph specimens | Pentax 4.3v 7.1 megapixel OPTIO W30 |
| Federal Scientific Research Permit | Allows research sampling | SRP # 2012-09 |
| State of Alaska Research Permit | Allows research sampling | CF-10-038 |

**Species identification guides**

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Orr, JW, MA Brown and D Baker 2000. *Guide to rockfishes (Scorpaenidae) of the genera Sebastes, Sebastolobus, and Adelosebastes of the Northeast Pacific Ocean,* 2nd Edition NOAA Tech. Memo. NMFS-AFSC-117, 47 p.

Stevenson, DE, JW Orr, GR Hoff and JD McEachran 2007. *Field Guide to Sharks, Skates, and Ratfish of Alaska* Alaska Sea Grant College Program. University of Alaksa Fairbanks. 77 p.

**Table 4.** - - Projects and collections completed during the 2012 EBSS survey.

| Project title | Project description | Investigator (affiliation) | Number of samples collected |
|---|---|---|---|
| Age structures for critical species | Otolith collections for current stock assessment models | A. Hollowed (AFSC) | See Table 7 for details |
| 2012 Bering Sea slope giant greandier otoliths | Otolith collections for future stock assessment models | D. Clausen (AFSC) | See Table 7 for details |
| Age structures for selected species | Otolith collections for future stock assessment models | G. Hoff (AFSC) | See Table 7 for details |
| Size, egg and shell condition data of king and Tanner crab species collected during the Bering Sea slope survey | Carapace size, weight, and shell condition on selected crab species | R. Foy, J. Haaga (AFSC-Kodiak) | See Table 7 for details |
| Assessing the effect of light intensity and light pepetration on the distribution and behavior of walleye pollock in the eastern Bering Sea | Light profiles for study on influence of light on pollock distribution | S. Kotwicki (AFSC) | Light, depth, temperature, conductivity profiles from 195 bottom trawls |
| Sleeper shark tagging | Tag and release of sleeper shark for study of life history | G. Hoff (AFSC) | Spaghetti tags and tissue samples (n=23) |
| *Oneirodes* & *Ceratias* collections | Tissue, gonads, and specimen collections | M. Degnin (UW) | Frozen and preserved in Bouin solution (n=35) |
| Oceanographic data logger | Oceanographic data from bottom trawl | G. Hoff (AFSC) | Salinity, pH, temperature, depth, turbidity,oxygen collected on all trawls |
| Measurement of skate juveniles | Tail filaments measurement for determination of hatching size | G. Hoff (AFSC) | *B. trachura, B. taranezi, B. parmifera, B. maculata* (n=2 each), *B. minispinosa* (n=4), *B. lindbergi* (n=11), *B. aleutica* (n=49), *B. interrupta* (n=26) |
| St. Paul Middle School Ocean Science Enrichment | Assorted fish and invertebrates for school outreach | T. Kushin (SPMS) | Assorted species were collected frozen |
| Live skate eggs | Collect live skate eggs for development study | G. Hoff (AFSC) J, Guthridge (ASLC) | Live skate eggs transported to the Alaska Sealife Center. B. trachura (n=3), B. taranetz i (n=2), B. aleutica (n=6 ), B. interrupta (n=11 ), B. parmifera (n = 9 ), B. maculata (n=2 ), B. sp. (n=2 ) |
| Octopus Reference Specimens | Selected species of small octopus species | L. Conners (AFSC) | Several specimens of small octopus were collected |
| Distribution of Bigmouth sculpin eggs depositied in Alaskan Marine waters | Photos of eggs and sponges | M. Busby (AFSC) | Photos of eggs (n=89) |
| Octopus individual weights | Sex/lengths of octopus | L. Conners (AFSC) | Mantle lengths and sex for *Opisthoteuthis californiana* (n=190) *Benthoctopus leioderma* (n=72), *Sasakiopus salebrosus* (n=73), *Octopus dofleini* (n=76) |

**Table 4. - -** continued.

| Project title | Project description | Investigator (affiliation) | Number of samples collected |
|---|---|---|---|
| Exploring connectivity between North America's three oceans | Tissue samples of common slope fish species | J. Lighten (DU) | Finclips of greenland turbot, Pacific ocean perch, rex sole, flathead sole and walleye pollock (n=50 each) |
| Squid data collection | Mantle lengths on squid species | O. Ormseth (AFSC) | Mantle lengths for *Berryteuthis magister* squid (n=865) |
| Outreach/Fishermans Festival | Fish and Invertebrates outreach collection | J. Connor (AFSC) | Two specimens each of a variety of commercial and unusual fish and invertebrate species were frozen |
| Lamprey distribution and abundance in the North Pacific | lamprey collection and photos of cod and halibut lamprey marks | K. Siwicke (UAF) | Photos were taken of Pacific cod with lamprey marks (n=32) and lampreys frozen (n=60) |
| Frozen specimens for Arrowtooth and Kamchatka flounder genetic reference | Arrowtooth and Kachatka Flounder tissue | L. De Forest (AFSC) | Arowtooth (n=5) and Kamchatka flounder (n=10) were frozen |
| Myctophid collections | Myctophids for examination of diet and plastic ingestion | A. McCarthy (AFSC) | Myctophids were frozen (n=50) |
| Trophic interactions feeding ecology | Stomach collections | K. Aydin, T. Buckley (AFSC) | See Table 7 for details |
| Gadiform fish photos | Photos for use in publication on North Pacific gadoid fishes | G. Hoff (AFSC) | Gadoid fishes photographed (n=213) |
| Microplastic sampling | Neuston samples to detect microplastics | G. Hoff (AFSC) | Neuston tows (n=8) |
| Hydroacoustic data | Collection of hydroacoustic data | T. Honkalehto, P. Ressler (AFSC) | ES60 Hydroacoustic data was collected during each trawl |
| Snailfish Taxonomy and Systematics | Snailfish for taxonomic studies | J. Orr (AFSC) | Snailfish were collected in formalin (n=100) |
| Snailfish eggs from Lithodids | Life history of parasitic snaifishes on crabs | J. Orr (AFSC) | Egg masses from lithodid crabs (n=7) |
| Molecular species identification of deepwater corals | Collection of coral specimens | E. Bernston (NWFSC) | *Paragorgia arborea* (n=2), *Isidella* sp. (n=2), *Swiftia* sp. (n=1) |
| Collection of gadiform and other fishes | Taxonomic studies on this group | E. Hilton (VIMS) | Walleye pollock, Pacific grenadier, popeye grenadier, Pacific flatnose, giant grenadier, sablefish and prowfish frozen (n=5 each) |
| Genomic signatures of natural selection in sablefish | Otolith and tissues samples | R. Goetz (NWFSC) | Otolith pairs and tissue samples (n=140) |
| NMML Food Habits Fish Collection | Reference collection of mammal prey items | J. Thomason (AFSC) | Fish taxon were not encountered to fulfill this request |

**AFSC**-Alaska Fisheries Science Center, Seattle W.A. / **UW**-University of Washington, Seattle / **NWFSC**-Northwest Fisheries Science Center, Seattle / **UAF**-University of Fairbanks, Fairbanks AK.

**VIMS**-Virginia Institute of Marine Science Glouster MA. / **DU**-Dalhousie University Nova Scotia Cananda / **SPSM**-Saint Paul Island Middle School, AK

**Table 5a. - -** Alphabetical list by common name of all fishes and invertebrates encountered on the 2012 EBSS survey.

| Common name | Species/Taxon |
|---|---|
| Alaska eelpout | *Bothrocara pusillum* |
| Alaska skate | *Bathyraja parmifera* |
| Alaska skate egg case | *Bathyraja parmifera* egg case |
| Alaska snailfish | *Careproctus colletti* |
| Alaska volute | *Arctomelon stearnsii* |
| Alaska volute species | *Arctomelon* species |
| Alaskan pink shrimp | *Pandalus eous* |
| Aleutian alligatorfish | *Aspidophoroides bartoni* |
| Aleutian hermit | *Pagurus aleuticus* |
| Aleutian skate | *Bathyraja aleutica* |
| Aleutian skate egg case | *Bathyraja aleutica* egg case |
| arrowtooth flounder | *Atheresthes stomias* |
| articulated bamboo coral | *Isidella* species |
| Atka mackerel | *Pleurogrammus monopterygius* |
| barnacle species | *Balanus* species |
| basketstar | *Gorgonocephalus eucnemis* |
| bat sea star species | *Ceramaster* species |
| Bering eelpout | *Lycodes beringi* |
| Bering skate | *Bathyraja interrupta* |
| Bering skate egg case | *Bathyraja interrupta* egg case |
| bigmouth sculpin | *Hemitripterus bolini* |
| bigscale species | Melamphaidae |
| black coral | Antipatharia |
| blackfin poacher | *Bathyagonus nigripinnis* |
| blackfin snailfish | *Careproctus cypselurus* |
| blacklip snailfish | *Elassodiscus tremebundus* |
| blacknose sculpin | *Icelus canaliculatus* |
| blacksmelt species | *Bathylagus* species |
| blackspotted rockfish | *Sebastes melanostictus* |
| blacktail snailfish | *Careproctus melanurus* |
| blob sculpin | *Psychrolutes phrictus* |
| blotched snailfish | *Crystallichthys cyclospilus* |
| boreopacific armhook squid | *Gonatopsis borealis* |
| brisingid sea star | Brisingidae |
| bristlemouth species | *Cyclothone* species |
| bristlemouth species | Gonostomatidae |
| brittle star species | *Ophiopholis* species |
| brittle star species | Ophiuroidea |
| broadfin snailfish | *Paraliparis ulochir* |
| broadfin thornyhead | *Sebastolobus macrochir* |
| brokenline lampfish | *Lampanyctus jordani* |
| bryozoan species | Bryozoa |
| butterfly sculpin | *Hemilepidotus papilio* |
| California headlightfish | *Diaphus theta* |
| California lamp shell | *Laqueus californianus* |
| cannonball sun star | *Heterozonias alternatus* |
| Chrysaora jellyfish | *Chrysaora melanaster* |
| clam species | *Yoldia* species |
| clam species | *Chlamys* species |

**Table 5a. - -** Continued.

| Common name | Species/Taxon |
|---|---|
| clawed armhook squid | *Gonatus onyx* |
| clay pipe sponge | *Aphrocallistes vastus* |
| comb jelly species | Ctenophora |
| Commander skate | *Bathyraja lindbergi* |
| common mud star | *Ctenodiscus crispatus* |
| compound ascidian species | Ascidiacea compound |
| coral species | *Lillipathes* species B |
| coral species | *Paragorgia* species |
| coral species | *Plumarella* species |
| coral species | *Plumarella* species 1 |
| coral species | *Primnoa* species |
| coral species | *Swiftia pacifica* |
| costate whelk | *Buccinum costatum* |
| crab species | *Oregonia bifurca* |
| crangonid shrimp species | *Crangon* species |
| crested sea star | *Lophaster furcilliger* |
| crested star | *Lophaster vexator* |
| crimson pasiphaeid | *Pasiphaea tarda* |
| crinoid species | Crinoidea |
| darkfin sculpin | *Malacocottus zonurus* |
| deep sea papillate cucumber | *Pannychia moseleyi* |
| deepsea eualid | *Eualus biunguis* |
| deepsea skate | *Bathyraja abyssicola* |
| deepsea skate egg case | *Bathyraja abyssicola* egg case |
| deepsea sole | *Embassichthys bathybius* |
| depressed scale worm | *Eunoe depressa* |
| Dover sole | *Microstomus pacificus* |
| dragon poacher | *Percis japonicus* |
| dreamer species | *Oneirode*s species |
| dreamer species | *Oneirodes thompsoni* |
| dusky rockfish | *Sebastes variabilis* |
| eared barnacle | *Scalpellum cornutum* |
| eastern Pacific bobtail | *Rossia pacifica* |
| ebony eelpout | *Lycodes concolor* |
| eelpout species | *Bothrocara* species |
| eelpout species | *Lycodapus* species |
| egg yolk jelly | *Phacellophora camtschatica* |
| emarginate snailfish | *Careproctus furcellus* |
| empty bivalve shells | Bivalvia |
| empty gastropod shells | Gastropoda |
| eualid shrimp species | *Eualus* species |
| eulachon | *Thaleichthys pacificus* |
| euphausiid species | Euphausiacea |
| Evermann's seastar | *Zoroaster evermanni* |
| filamented grenadier | *Coryphaenoides filifer* |
| firm finger sponge | *Plicatellopsis amphispicula* |
| fish eggs species | Osteichthyes |
| flabby sculpin | *Zesticelus profundorum* |
| flapjack devilfish | *Opisthoteuthis californiana* |
| flathead sole | *Hippoglossoides elassodon* |
| fragile moonsnail | *Bulbus fragilis* |
| fuzzy hermit crab | *Pagurus trigonocheirus* |
| garnet lampfish | *Stenobrachius nannochir* |
| giant barnacle | *Balanus evermanni* |
| giant grenadier | *Albatrossia pectoralis* |
| giant octopus | *Octopus dofleini* |

**Table 5a. - -** Continued.

| Common name | Species/Taxon |
|---|---|
| gigantic anemone | *Metridium farcimen* |
| golden king crab | *Lithodes aequispinus* |
| graceful decorator crab | *Oregonia gracilis* |
| great sculpin | *Myoxocephalus polyacanthocephalus* |
| green sea urchin | *Strongylocentrotus droebachiensis* |
| Greenland turbot | *Reinhardtius hippoglossoides* |
| grooved sea star | *Crossaster borealis* |
| grooved Tanner crab | *Chionoecetes tanneri* |
| hairy-lure dreamer | *Oneirodes bulbosus* |
| heart urchin | *Brisaster latifrons* |
| hermit crab species | *Elassochirus* species |
| hermit species | *Pagurus cornutus* |
| hermit species | *Pagurus* species |
| highsnout bigscale | *Melamphaes lugubris* |
| hot dog sea anemone | *Bathyphelia australis* |
| humpback snailfish | *Elassodiscus caudatus* |
| isopod species | Isopoda |
| jellyfish species | *Atolla* species |
| jellyfish species | *Periphylla periphylla* |
| jellyfish species | Scyphozoa |
| Kamchatka coral | *Paragorgia arborea* |
| Kamchatka eelpout | *Lycenchelys camchatica* |
| Kamchatka flounder | *Atheresthes evermanni* |
| king crab species | *Paralomis multispina* |
| king crab species | *Paralomis* species A |
| king crab species | *Paralomis verrilli* |
| knobbyhand hermit | *Pagurus confragosus* |
| lampfish species | *Lampanyctus* species |
| lampfish species | *Stenobrachius* species |
| lampshell species | Brachiopoda |
| lanternfish species | Myctophidae |
| leafy bryozoan | *Flustra serrulata* |
| lebbeid shrimp species | *Lebbeus* species |
| longfin dragonfish | *Tactostoma macropus* |
| longfin grenadier | *Coryphaenoides longifilis* |
| longhand hermit | *Pagurus tanneri* |
| longnose lancetfish | *Alepisaurus ferox* |
| longsnout prickleback | *Lumpenella longirostris* |
| lyre whelk | *Neptunea lyrata* |
| magistrate armhook squid | *Berryteuthis magister* |
| mollusk species | *Neomenia* cf. *yamamoti* |
| mollusk species | *Neomenia* species |
| monster snailfish | *Careproctus phasma* |
| mud skate | *Bathyraja taranetzi* |
| mud skate egg case | *Bathyraja taranetzi* egg case |
| mysid species | *Neognathophausia* species |
| nodal bamboo coral species | *Keratoisis* species |
| northern lampfish | *Stenobrachius leucopsarus* |
| northern pearleye | *Benthalbella dentata* |
| northern rock sole | *Lepidopsetta polyxystra* |
| northern rockfish | *Sebastes polyspinis* |
| northern sea star | *Dipsacaster borealis* |
| northern smoothtongue | *Leuroglossus schmidti* |
| notched brittlestar | *Ophiura sarsi* |
| nudibranch species | Nudibranchia |
| obscure sea star | *Pteraster obscurus* |

**Table 5a. - -** Continued.

| Common name | Species/Taxon |
|---|---|
| octopus species | *Graneledone boreopacifica* |
| octopus species | *Japetella diaphana* |
| octopus species | Octopodidae |
| orange-pink sea urchin | *Allocentrotus fragilis* |
| Oregon triton | *Fusitriton oregonensis* |
| Pacific blacksmelt | *Bathylagus pacificus* |
| Pacific cod | *Gadus macrocephalus* |
| Pacific flatnose | *Antimora microlepis* |
| Pacific glass shrimp | *Pasiphaea pacifica* |
| Pacific grenadier | *Coryphaenoides acrolepis* |
| Pacific halibut | *Hippoglossus stenolepis* |
| Pacific lamprey | *Lampetra tridentata* |
| Pacific lyre crab | *Hyas lyratus* |
| Pacific ocean perch | *Sebastes alutus* |
| Pacific sleeper shark | *Somniosus pacificus* |
| Pacific viperfish | *Chauliodus macouni* |
| pale moonsnail | *Euspira pallida* |
| pale spiny star | *Hippasteria* species C |
| parchment worm species | *Chaetopterus* species |
| peanut worm species | Sipuncula |
| pincushion sea star | *Diplopteraster multipes* |
| pinpoint lampfish | *Nannobrachium regale* |
| polychaete worm species | Polychaeta |
| popeye blacksmelt | *Bathylagus ochotensis* |
| popeye grenadier | *Coryphaenoides cinereus* |
| Pribilof whelk | *Neptunea pribiloffensis* |
| prowfish | *Zaprora silenus* |
| purple hermit | *Elassochirus cavimanus* |
| pygmy benthoctopus | *Sasakiopus salebrosus* |
| pygmy snailfish | *Liparis cus nanus* |
| ragfish | *Icosteus aenigmaticus* |
| red bat star | *Ceramaster japonicus* |
| red snailfish | *Paraliparis dactylosus* |
| redbanded rockfish | *Sebastes babcocki* |
| reticulate anemone | *Actinauge verrilli* |
| rex sole | *Glyptocephalus zachirus* |
| ridged crangon | *Crangon dalli* |
| robust blacksmelt | *Bathylagus milleri* |
| rose sea star | *Crossaster papposus* |
| rosy tritonia | *Tritonia diomedea* |
| rough purple sea anemone | *Paractinostola faeculenta* |
| rougheye rockfish | *Sebastes aleutianus* |
| roughtail skate | *Bathyraja trachura* |
| roughtail skate egg case | *Bathyraja trachura* egg case |
| sablefish | *Anoplopoma fimbria* |
| salmon snailfish | *Careproctus rastrinus* |
| salp species | Thaliacea |
| sawback poacher | *Leptagonus frenatus* |
| scarlet king crab | *Lithodes couesi* |
| scarlet sea star | *Pseudarchaster parelii* |
| sea anemone species | Actiniaria |
| sea anemone species | *Metridium* species |
| sea cucumber species | *Bathyplotes* species |
| sea cucumber species | Holothuroidea |
| sea cucumber species | *Molpadia* species |
| sea cucumber species | *Pannychia* species |

**Table 5a. - -** Continued.

| Common name | Species/Taxon |
|---|---|
| sea cucumber species | *Psolus* species |
| sea cucumber species | *Synallactes* species |
| sea mouse species | *Aphrodita japonica* |
| sea mouse species | *Aphrodita negligens* |
| sea mouse species | *Aphrodita* species |
| sea spider species | *Pycnogonida* |
| sea star species | *Asteronyx* species |
| sea star species | *Henricia* species |
| sea star species | *Lophaster* species |
| sea star species | *Mediaster* species |
| sea star species | *Myxoderma sacculatum* |
| sea star species | *Nearchaster pedicellaris* |
| sea star species | *Nearchaster variabilis* |
| sea star species | *Pteraster jordani* |
| sea star species | *Pteraster* species |
| sea star species | *Solaster* species |
| sea star species | *Solaster* species A |
| sea urchin species | *Allocentrotus* species |
| sea urchin species | *Strongylocentrotus* species |
| sea whip species | Pennatulacea |
| searcher | *Bathymaster signatus* |
| serpent sea star | *Asteronyx loveni* |
| sevenspine bay shrimp | *Crangon septemspinosa* |
| shadow eelpout | *Bothrocara nyx* |
| shortfin eelpout | *Lycodes brevipes* |
| shortraker rockfish | *Sebastes borealis* |
| shortspine thornyhead | *Sebastolobus alascanus* |
| shrimp species | *Argis* species |
| shrimp species | *Bentheogennema borealis* |
| shrimp species | *Pandalopsis ampla* |
| shrimp species | *Pandalopsis longirostris* |
| shrimp species | *Pandalopsis* species |
| shrimp species | Decapoda |
| sidestripe shrimp | *Pandalopsis dispar* |
| skate species egg case | *Bathyraja* species egg case |
| slender codling | *Halargyreus johnsonii* |
| slender sole | *Lyopsetta exilis* |
| slim snailfish | *Rhinoliparis attenuatus* |
| slope assfish | *Bassozetus zenkevitchi* |
| smooth lumpsucker | *Aptocyclus ventricosus* |
| smoothskin octopus | *Benthoctopus leioderma* |
| smoothstem seawhip | Virgulariidae |
| snail eggs | gastropod eggs |
| snail species | *Beringius frielei* |
| snail species | *Boreotrophon* species |
| snail species | *Buccinum* species |
| snail species | *Colus* species |
| snail species | *Otukaia kiheiziebisu* |
| snail species egg case | *Beringius* species eggs |
| snailfish species | *Careproctus* species |
| snailfish species | Liparidae |
| snailfish species | *Paraliparis* species |
| snailfish species | *Rhinoliparis* species |
| snow crab | *Chionoecetes opilio* |
| spectacled sculpin | *Triglops scepticus* |
| spiny red sea star | *Hippasteria spinosa* |

**Table 5a. - -** Continued.

| Common name | Species/Taxon |
|---|---|
| spiny sea star species | *Hippasteria* species |
| spiny snailfish | *Acantholiparis opercularis* |
| spinyhead sculpin | *Dasycottus setiger* |
| splendid hermit | *Labidochirus splendescens* |
| sponge hermit | *Pagurus brandti* |
| sponge species | Porifera |
| sponge species | *Staurocalyptus* species |
| sponge species | *Swiftia* species |
| squid species | *Chiroteuthis calyx* |
| squid species | Decapodiformes |
| squid species | *Galiteuthis phyllura* |
| squid species | Gonatidae |
| squid species | *Gonatus* species |
| sweet sea potato | *Molpadia intermedia* |
| swellhead snailfish | *Paraliparis cephalus* |
| swimming anemone | *Stomphia coccinea* |
| swollen whelk | *Buccinum oedematum* |
| tadpole snailfish | *Nectoliparis pelagicus* |
| Tanner crab | *Chionoecetes bairdi* |
| tentacle-shedding anemone | *Liponema brevicornis* |
| thorny sculpin | *Icelus spiniger* |
| threaded whelk | *Volutopsius filosus* |
| three-ribbed whelk | *Ancistrolepis eucosmius* |
| tomato snailfish | *Careproctus lycopersicus* |
| Townsend hermit crab | *Pagurus townsendi* |
| tree sponge | *Mycale loveni* |
| triangle Tanner crab | *Chionoecetes angulatus* |
| tube worm species | Polychaeta tube worms |
| tunicate species | Ascidiacea |
| twoline eelpout | *Bothrocara brunneum* |
| ubiquitous brittle star | *Ophiopholis aculeata* |
| Vancouver scallop | *Delectopecten vancouverensis* |
| vase sponge speices | Porifera |
| vermilion sea star | *Mediaster aequalis* |
| walleye pollock | *Theragra chalcogramma* |
| warped whelk | *Pyrulofusus deformis* |
| western eelpout | *Bothrocara zestum* |
| whelk species | *Neptunea* species |
| whelk species | *Pyrulofusus melonis* |
| white neptune | *Neptunea amianta* |
| white rose star | *Crossaster* species A |
| whitebarred prickleback | *Poroclinus rothrocki* |
| whiteblotched skate | *Bathyraja maculata* |
| whiteblotched skate egg case | *Bathyraja maculata* egg case |
| whitebrow skate | *Bathyraja minispinosa* |
| whitebrow skate egg case | *Bathyraja minispinosa* egg case |
| wide-eye sculpin | *Icelus euryops* |
| widehand hermit crab | *Elassochirus tenuimanus* |
| worm species | Annelida |
| worm species tubes | Polychaete tubes |
| wrinkled star | *Pteraster militaris* |
| yellow Irish lord | *Hemilepidotus jordani* |

**Table 5b. - -** Alphabetical list by scientific name of all fishes and invertebrate on the 2012 EBSS survey.

| Species/Taxon | Common name |
|---|---|
| *Acantholiparis opercularis* | spiny snailfish |
| *Actinauge verrilli* | reticulate anemone |
| Actiniaria | sea anemone species |
| *Albatrossia pectoralis* | giant grenadier |
| *Alepisaurus ferox* | longnose lancetfish |
| *Allocentrotus fragilis* | orange-pink sea urchin |
| *Allocentrotus* species | sea urchin species |
| *Ancistrolepis eucosmius* | three-ribbed whelk |
| *Anoplopoma fimbria* | sablefish |
| *Antimora microlepis* | Pacific flatnose |
| Antipatharia | black coral |
| *Aphrocallistes vastus* | clay pipe sponge |
| *Aphrodita japonica* | sea mouse species |
| *Aphrodita negligens* | sea mouse species |
| *Aphrodita* species | sea mouse species |
| *Aptocyclus ventricosus* | smooth lumpsucker |
| *Arctomelon* species | Alaska volute species |
| *Arctomelon stearnsii* | Alaska volute |
| *Argis* species | shrimp species |
| Ascidiacea compound | compound ascidian species |
| Ascidiacea | tunicate species |
| *Aspidophoroides bartoni* | Aleutian alligatorfish |
| *Asteronyx loveni* | serpent sea star |
| *Asteronyx* species | sea star species |
| *Atheresthes evermanni* | Kamchatka flounder |
| *Atheresthes stomias* | arrowtooth flounder |
| *Atolla* species | jellyfish species |
| *Balanus evermanni* | giant barnacle |
| *Balanus* species | barnacle species |
| *Bassozetus zenkevitchi* | slope assfish |
| *Bathyagonus nigripinnis* | blackfin poacher |
| *Bathylagus milleri* | robust blacksmelt |
| *Bathylagus ochotensis* | popeye blacksmelt |
| *Bathylagus pacificus* | Pacific blacksmelt |
| *Bathylagus* species | blacksmelt species |
| *Bathymaster signatus* | searcher |
| *Bathyphelia australis* | hot dog sea anemone |
| *Bathyplotes* species | sea cucumber species |
| *Bathyraja abyssicola* | deepsea skate |
| *Bathyraja abyssicola* egg case | deepsea skate egg case |
| *Bathyraja aleutica* | Aleutian skate |
| *Bathyraja aleutica* egg case | Aleutian skate egg case |
| *Bathyraja interrupta* | Bering skate |
| *Bathyraja interrupta* egg case | Bering skate egg case |
| *Bathyraja lindbergi* | Commander skate |
| *Bathyraja maculata* | whiteblotched skate |
| *Bathyraja maculata* egg case | whiteblotched skate egg case |
| *Bathyraja minispinosa* | whitebrow skate |
| *Bathyraja minispinosa* egg case | whitebrow skate egg case |

**Table 5b. - -** Continued.

| Species/Taxon | Common name |
|---|---|
| *Bathyraja parmifera* | Alaska skate |
| *Bathyraja parmifera* egg case | Alaska skate egg case |
| *Bathyraja* species egg case | skate species egg case |
| *Bathyraja taranetzi* | mud skate |
| *Bathyraja taranetzi* egg case | mud skate egg case |
| *Bathyraja trachura* | roughtail skate |
| *Bathyraja trachura* egg case | roughtail skate egg case |
| *Benthalbella dentata* | northern pearleye |
| *Bentheogennema borealis* | shrimp species |
| *Benthoctopus leioderma* | smoothskin octopus |
| *Beringius frielei* | snail species |
| *Beringius* species eggs | snail species egg case |
| *Berryteuthis magister* | magistrate armhook squid |
| Bivalvia | empty bivalve shells |
| *Boreotrophon* species | snail species |
| *Bothrocara brunneum* | twoline eelpout |
| *Bothrocara nyx* | shadow eelpout |
| *Bothrocara pusillum* | Alaska eelpout |
| *Bothrocara* species | eelpout species |
| *Bothrocara zestum* | western eelpout |
| Brachiopoda | lampshell species |
| *Brisaster latifrons* | heart urchin |
| Brisingidae | brisingid sea star |
| Bryozoa | bryozoan species |
| *Buccinum costatum* | costate whelk |
| *Buccinum oedematum* | swollen whelk |
| *Buccinum* species | snail species |
| *Bulbus fragilis* | fragile moonsnail |
| *Careproctus colletti* | Alaska snailfish |
| *Careproctus cypselurus* | blackfin snailfish |
| *Careproctus furcellus* | emarginate snailfish |
| *Careproctus lycopersicus* | tomato snailfish |
| *Careproctus melanurus* | blacktail snailfish |
| *Careproctus phasma* | monster snailfish |
| *Careproctus rastrinus* | salmon snailfish |
| *Careproctus* species | snailfish species |
| *Ceramaster japonicus* | red bat star |
| *Ceramaster* species | bat sea star species |
| *Chaetopterus* species | parchment worm species |
| *Chauliodus macouni* | Pacific viperfish |
| *Chionoecetes angulatus* | triangle Tanner crab |
| *Chionoecetes bairdi* | Tanner crab |
| *Chionoecetes opilio* | snow crab |
| *Chionoecetes tanneri* | grooved Tanner crab |
| *Chiroteuthis calyx* | squid species |
| *Chlamys* species | clam species |
| *Chrysaora melanaster* | Chrysaora jellyfish |
| *Colus* species | snail species |
| *Coryphaenoides acrolepis* | Pacific grenadier |
| *Coryphaenoides cinereus* | popeye grenadier |
| *Coryphaenoides filifer* | filamented grenadier |
| *Coryphaenoides longifilis* | longfin grenadier |
| *Crangon dalli* | ridged crangon |
| *Crangon septemspinosa* | sevenspine bay shrimp |
| *Crangon* species | crangonid shrimp species |
| Crinoidea | crinoid unident. |
| *Crossaster borealis* | grooved sea star |
| *Crossaster papposus* | rose sea star |
| *Crossaster* species A | white rose star |

**Table 5b. - -** Continued.

| Species/Taxon | Common name |
|---|---|
| *Crystallichthys cyclospilus* | blotched snailfish |
| *Ctenodiscus crispatus* | common mud star |
| Ctenophora | comb jelly species |
| *Cyclothone* species | bristlemouth species |
| *Dasycottus setiger* | spinyhead sculpin |
| Decapoda | shrimp species |
| Decapodiformes | squid species |
| *Delectopecten vancouverensis* | Vancouver scallop |
| *Diaphus theta* | California headlightfish |
| *Diplopteraster multipes* | pincushion sea star |
| *Dipsacaster borealis* | northern sea star |
| *Elassochirus cavimanus* | purple hermit |
| *Elassochirus* species | hermit crab species |
| *Elassochirus tenuimanus* | widehand hermit crab |
| *Elassodiscus caudatus* | humpback snailfish |
| *Elassodiscus tremebundus* | blacklip snailfish |
| *Embassichthys bathybius* | deepsea sole |
| *Eualus biunguis* | deepsea eualid |
| *Eualus* species | eualid shrimp species |
| *Eunoe depressa* | depressed scale worm |
| Euphausiacea | euphausiid species |
| *Euspira pallida* | pale moonsnail |
| *Flustra serrulata* | leafy bryozoan |
| *Fusitriton oregonensis* | Oregon triton |
| *Gadus macrocephalus* | Pacific cod |
| *Galiteuthis phyllura* | squid species |
| gastropod eggs | snail eggs |
| Gastropoda | empty gastropod shells |
| *Glyptocephalus zachirus* | rex sole |
| Gonatidae | squid species |
| *Gonatopsis borealis* | boreopacific armhook squid |
| *Gonatus onyx* | clawed armhook squid |
| *Gonatus* species | squid species |
| Gonostomatidae | bristlemouth species |
| *Gorgonocephalus eucnemis* | basketstar |
| *Graneledone boreopacifica* | octopus species |
| *Halargyreus johnsonii* | slender codling |
| *Hemilepidotus jordani* | yellow Irish lord |
| *Hemilepidotus papilio* | butterfly sculpin |
| *Hemitripterus bolini* | bigmouth sculpin |
| *Henricia* species | sea star species |
| *Heterozonias alternatus* | cannonball sun star |
| *Hippasteria* species | spiny sea star species |
| *Hippasteria* species C | pale spiny star |
| *Hippasteria spinosa* | spiny red sea star |
| *Hippoglossoides elassodon* | flathead sole |
| *Hippoglossus stenolepis* | Pacific halibut |
| Holothuroidea | sea cucumber species |
| *Hyas lyratus* | Pacific lyre crab |
| *Icelus canaliculatus* | blacknose sculpin |
| *Icelus euryops* | wide-eye sculpin |
| *Icelus spiniger* | thorny sculpin |
| *Icosteus aenigmaticus* | ragfish |
| *Isidella* species | articulated bamboo coral |
| Isopoda | isopod species |
| *Japetella diaphana* | octopus species |
| *Keratoisis* species | nodal bamboo coral species |
| *Labidochirus splendescens* | splendid hermit |
| *Lampanyctus jordani* | brokenline lampfish |

**Table 5b. - -** Continued.

| Species/Taxon | Common name |
|---|---|
| *Lampanyctus* species | lampfish species |
| *Lampetra tridentata* | Pacific lamprey |
| *Laqueus californianus* | California lamp shell |
| *Lebbeus* species | lebbeid shrimp species |
| *Lepidopsetta polyxystra* | northern rock sole |
| *Leptagonus frenatus* | sawback poacher |
| *Leuroglossus schmidti* | northern smoothtongue |
| *Lillipathes* species B | coral species |
| Liparidae | snailfish species |
| *Liparis cus nanus* | pygmy snailfish |
| *Liponema brevicornis* | tentacle-shedding anemone |
| *Lithodes aequispinus* | golden king crab |
| *Lithodes couesi* | scarlet king crab |
| *Lophaster furcilliger* | crested sea star |
| *Lophaster* species | sea star species |
| *Lophaster vexator* | crested star |
| *Lumpenella longirostris* | longsnout prickleback |
| *Lycenchelys camchatica* | Kamchatka eelpout |
| *Lycodapus* species | eelpout species |
| *Lycodes beringi* | Bering eelpout |
| *Lycodes brevipes* | shortfin eelpout |
| *Lycodes concolor* | ebony eelpout |
| *Lyopsetta exilis* | slender sole |
| *Malacocottus zonurus* | darkfin sculpin |
| *Mediaster aequalis* | vermilion sea star |
| *Mediaster* species | sea star species |
| *Melamphaes lugubris* | highsnout bigscale |
| Melamphaidae | bigscale species |
| *Metridium farcimen* | gigantic anemone |
| *Metridium* species | sea anemone species |
| *Microstomus pacificus* | Dover sole |
| *Molpadia intermedia* | sweet sea potato |
| *Molpadia* species | sea cucumber species |
| *Mycale loveni* | tree sponge |
| Myctophidae | lanternfish species |
| *Myoxocephalus polyacanthocephalus* | great sculpin |
| *Myxoderma sacculatum* | sea star species |
| *Nannobrachium regale* | pinpoint lampfish |
| *Nearchaster pedicellaris* | sea star species |
| *Nearchaster variabilis* | sea star species |
| *Nectoliparis pelagicus* | tadpole snailfish |
| *Neognathophausia* species | mysid species |
| *Neomenia* cf. *yamamoti* | mollusk species |
| *Neomenia* species | mollusk species |
| *Neptunea amianta* | white neptune |
| *Neptunea lyrata* | lyre whelk |
| *Neptunea pribiloffensis* | Pribilof whelk |
| *Neptunea* species | whelk species |
| Nudibranchia | nudibranch species |
| Octopodidae | octopus species |
| *Octopus dofleini* | giant octopus |
| *Oneirodes bulbosus* | hairy-lure dreamer |
| *Oneirodes* species | dreamer species |
| *Oneirodes thompsoni* | dreamer species |
| *Ophiopholis aculeata* | ubiquitous brittle star |
| *Ophiopholis* species | brittle star species |
| *Ophiura sarsi* | notched brittlestar |
| Ophiuroidea | brittle star species |
| *Opisthoteuthis californiana* | flapjack devilfish |

**Table 5b. - -** Continued.

| Species/Taxon | Common name |
|---|---|
| *Oregonia bifurca* | crab species |
| *Oregonia gracilis* | graceful decorator crab |
| Osteichthyes | fish eggs species |
| *Otukaia kiheiziebisu* | snail species |
| *Pagurus aleuticus* | Aleutian hermit |
| *Pagurus brandti* | sponge hermit |
| *Pagurus confragosus* | knobbyhand hermit |
| *Pagurus cornutus* | hermit species |
| *Pagurus* species | hermit species |
| *Pagurus tanneri* | longhand hermit |
| *Pagurus townsendi* | Townsend hermit crab |
| *Pagurus trigonocheirus* | fuzzy hermit crab |
| *Pandalopsis ampla* | shrimp species |
| *Pandalopsis dispar* | sidestripe shrimp |
| *Pandalopsis longirostris* | shrimp species |
| *Pandalopsis* species | shrimp species |
| *Pandalus eous* | Alaskan pink shrimp |
| *Pannychia moseleyi* | deep sea papillate cucumber |
| *Pannychia* species | sea cucumber species |
| *Paractinostola faeculenta* | rough purple sea anemone |
| *Paragorgia arborea* | Kamchatka coral |
| *Paragorgia* species | coral species |
| *Paraliparis cephalus* | swellhead snailfish |
| *Paraliparis dactylosus* | red snailfish |
| *Paraliparis* species | snailfish species |
| *Paraliparis ulochir* | broadfin snailfish |
| *Paralomis multispina* | king crab species |
| *Paralomis* species A | king crab species |
| *Paralomis verrilli* | king crab species |
| *Pasiphaea pacifica* | Pacific glass shrimp |
| *Pasiphaea tarda* | crimson pasiphaeid |
| Pennatulacea | sea whip species |
| *Percis japonicus* | dragon poacher |
| *Periphylla periphylla* | jellyfish species |
| *Phacellophora camtschatica* | egg yolk jelly |
| *Pleurogrammus monopterygius* | Atka mackerel |
| *Plicatellopsis amphispicula* | firm finger sponge |
| *Plumarella* species | coral species |
| *Plumarella* species 1 | coral species |
| Polychaeta | polychaete worm species |
| Polychaeta tube worms | tube worm species |
| Annelida | worm species |
| Polychaete tubes | worm species tubes |
| Porifera | sponge species |
| Porifera | vase sponge species |
| *Poroclinus rothrocki* | whitebarred prickleback |
| *Primnoa* species | coral species |
| *Pseudarchaster parelii* | scarlet sea star |
| *Psolus* species | sea cucumber species |
| *Psychrolutes phrictus* | blob sculpin |
| *Pteraster jordani* | sea star species |
| *Pteraster militaris* | wrinkled star |
| *Pteraster obscurus* | obscure sea star |
| *Pteraster* species | sea star species |
| *Pycnogonida* | sea spider species |
| *Pyrulofusus deformis* | warped whelk |
| *Pyrulofusus melonis* | whelk species |
| *Reinhardtius hippoglossoides* | Greenland turbot |
| *Rhinoliparis attenuatus* | slim snailfish |

**Table 5b. - -** Continued.

| Species/Taxon | Common name |
|---|---|
| *Rhinoliparis* species | snailfish species |
| *Rossia pacifica* | eastern Pacific bobtail |
| *Sasakiopus salebrosus* | pygmy benthoctopus |
| *Scalpellum cornutum* | eared barnacle |
| Scyphozoa | jellyfish species |
| *Sebastes aleutianus* | rougheye rockfish |
| *Sebastes alutus* | Pacific ocean perch |
| *Sebastes babcocki* | redbanded rockfish |
| *Sebastes borealis* | shortraker rockfish |
| *Sebastes melanostictus* | blackspotted rockfish |
| *Sebastes polyspinis* | northern rockfish |
| *Sebastes variabilis* | dusky rockfish |
| *Sebastolobus alascanus* | shortspine thornyhead |
| *Sebastolobus macrochir* | broadfin thornyhead |
| Sipuncula | peanut worm species |
| *Solaster* species | sea star species |
| *Solaster* species A | sea star species |
| *Somniosus pacificus* | Pacific sleeper shark |
| *Staurocalyptus* species | sponge species |
| *Stenobrachius leucopsarus* | northern lampfish |
| *Stenobrachius nannochir* | garnet lampfish |
| *Stenobrachius* species | lampfish species |
| *Stomphia coccinea* | swimming anemone |
| *Strongylocentrotus droebachiensis* | green sea urchin |
| *Strongylocentrotus* species | sea urchin species |
| *Swiftia pacifica* | coral species |
| *Swiftia* species | sponge species |
| *Synallactes* species | sea cucumber species |
| *Tactostoma macropus* | longfin dragonfish |
| *Thaleichthys pacificus* | eulachon |
| Thaliacea | salp species |
| *Theragra chalcogramma* | walleye pollock |
| *Triglops scepticus* | spectacled sculpin |
| *Tritonia diomedea* | rosy tritonia |
| Virgulariidae | smoothstem seawhip |
| *Volutopsius filosus* | threaded whelk |
| *Yoldia* species | clam species |
| *Zaprora silenus* | prowfish |
| *Zesticelus profundorum* | flabby sculpin |
| *Zoroaster evermanni* | Evermann's seastar |

**Table 6. - -** All taxa encountered on the 2012 EBSS survey with depth range and frequency of occurrence. Taxa are listed in descending order by total catch weight.

| Species name | Total weight (kg) | Total number | Min-Max depth (m) | Mean depth (m) | Frequency (hauls) |
|---|---|---|---|---|---|
| *Albatrossia pectoralis* | 114,328.56 | 31,296 | 254-1,17 | 68 | 134 |
| *Sebastes alutus* | 25,860.97 | 34,574 | 206-613 | 327 | 69 |
| *Atheresthes stomias* | 14,091.97 | 12,989 | 206-866 | 395 | 122 |
| *Coryphaenoides cinereus* | 11,925.57 | 75,968 | 357-1,170 | 777 | 95 |
| *Theragra chalcogramma* | 7,726.39 | 7,895 | 206-1,121 | 378 | 85 |
| *Atheresthes evermanni* | 6,701.84 | 5,355 | 206-1,170 | 506 | 161 |
| *Sebastolobus alascanus* | 6,088.65 | 9,819 | 217-1,170 | 611 | 114 |
| *Pannychia moseleyi* | 5,396.12 | 37,758 | 223-1,136 | 618 | 64 |
| *Bathyraja aleutica* | 4,567.10 | 1,270 | 206-1,170 | 519 | 146 |
| *Hippoglossoides elassodon* | 4,478.80 | 12,276 | 206-555 | 340 | 93 |
| *Bathyraja parmifera* | 4,427.47 | 841 | 206-516 | 295 | 35 |
| *Reinhardtius hippoglossoides* | 3,796.72 | 2,543 | 214-1,170 | 559 | 132 |
| *Bothrocara zestum* | 3,351.23 | 4,598 | 354-1,170 | 670 | 61 |
| *Glyptocephalus zachirus* | 2,663.38 | 3,608 | 206-640 | 348 | 91 |
| *Anoplopoma fimbria* | 1,771.71 | 647 | 411-1,079 | 660 | 80 |
| *Hippoglossus stenolepis* | 1,492.03 | 233 | 206-589 | 351 | 64 |
| *Ophiura sarsi* | 1,254.33 | 1,363,406 | 421-1,108 | 692 | 42 |
| *Sebastes borealis* | 1,176.31 | 282 | 248-662 | 433 | 28 |
| *Bathyraja maculata* | 1,083.55 | 335 | 209-732 | 423 | 49 |
| *Chionoecetes angulatus* | 992.95 | 14,363 | 289-1,170 | 777 | 78 |
| *Gadus macrocephalus* | 870.96 | 349 | 206-432 | 262 | 44 |
| *Bathyraja lindbergi* | 861.66 | 521 | 333-1,170 | 673 | 66 |
| *Hemitripterus bolini* | 783.35 | 239 | 209-542 | 346 | 52 |
| *Bathyraja interrupta* | 730.03 | 595 | 206-1,009 | 372 | 90 |
| *Coryphaenoides acrolepis* | 647.80 | 3,264 | 648-1,170 | 962 | 38 |
| *Pannychia* species | 524.67 | 4,769 | 505-839 | 628 | 4 |
| Porifera | 522.17 | | 206-1,170 | 523 | 92 |
| *Liponema brevicornis* | 487.83 | 5,075 | 208-1,170 | 454 | 120 |
| *Bathyraja trachura* | 451.67 | 253 | 517-1,121 | 891 | 48 |
| *Ceramaster japonicus* | 440.97 | 5,059 | 208-1,108 | 549 | 62 |
| *Paractinostola faeculenta* | 407.07 | 1,063 | 236-1,136 | 617 | 33 |
| *Bathyplotes* species | 384.79 | 11,455 | 206-1,136 | 610 | 60 |
| Polychaete tubes | 358.49 | | 904-1,136 | 1,022 | 5 |
| *Lithodes aequispinus* | 350.78 | 667 | 211-1,079 | 453 | 66 |
| *Crossaster borealis* | 339.20 | 2,662 | 208-1,136 | 542 | 146 |
| *Lycodes concolor* | 322.00 | 333 | 417-1,170 | 614 | 36 |
| *Gorgonocephalus eucnemis* | 310.83 | 1,192 | 211-849 | 379 | 22 |
| *Somniosus pacificus* | 305.10 | 23 | 227-662 | 371 | 16 |
| *Chionoecetes tanneri* | 304.53 | 1,296 | 339-1,170 | 696 | 82 |
| *Bathyraja minispinosa* | 291.68 | 188 | 214-1,079 | 598 | 78 |
| Actiniaria | 282.19 | 4,117 | 206-1,108 | 434 | 66 |
| *Berryteuthis magister* | 277.14 | 874 | 206-1,079 | 447 | 100 |
| *Ceramaster* species | 257.90 | 2,592 | 206-1,039 | 511 | 66 |
| *Aphrocallistes vastus* | 224.11 | | 214-1,079 | 601 | 62 |
| *Asteronyx* species | 217.12 | 890 | 218-1,136 | 453 | 18 |
| *Psychrolutes phrictus* | 208.26 | 95 | 815-1,136 | 982 | 26 |
| *Nearchaster variabilis* | 207.36 | 6,931 | 213-1,136 | 694 | 87 |
| *Malacocottus zonurus* | 194.09 | 1,930 | 209-1,020 | 417 | 92 |
| Virgulariidae | 193.42 | 6,223 | 225-1,136 | 421 | 11 |
| *Bathyraja taranetzi* | 172.47 | 213 | 214-838 | 399 | 33 |
| *Dipsacaster borealis* | 166.62 | 1,064 | 208-1,079 | 460 | 60 |

**Table 6. - - C**ontinued.

| Species name | Total weight (kg) | Total number | Min-Max depth (m) | Mean depth (m) | Frequency (hauls) |
|---|---|---|---|---|---|
| *Bothrocara brunneum* | 166.03 | 172 | 415-1,108 | 764 | 40 |
| *Pandalus eous* | 165.55 | 33,406 | 206-457 | 271 | 55 |
| *Chionoecetes opilio* | 164.81 | 328 | 206-457 | 272 | 14 |
| *Microstomus pacificus* | 147.36 | 123 | 213-662 | 397 | 23 |
| *Brisaster latifrons* | 138.63 | 6,204 | 225-1,079 | 540 | 24 |
| *Neptunea pribiloffensis* | 133.90 | 1,287 | 208-1,013 | 409 | 61 |
| *Zoroaster evermanni* | 130.81 | 1,250 | 449-1,136 | 819 | 38 |
| *Sebastes melanostictus* | 123.48 | 161 | 217-505 | 375 | 23 |
| *Chionoecetes bairdi* | 121.97 | 729 | 206-557 | 288 | 41 |
| *Careproctus furcellus* | 111.00 | 218 | 214-1,108 | 609 | 58 |
| Polychaeta | 107.97 | | 208-1,108 | 488 | 4 |
| *Octopus dofleini* | 94.32 | 76 | 206-638 | 368 | 35 |
| *Careproctus melanurus* | 92.90 | 218 | 413-1,079 | 714 | 65 |
| *Zaprora silenus* | 92.65 | 20 | 215-256 | 231 | 7 |
| *Chrysaora melanaster* | 86.40 | 124 | 220-1,108 | 530 | 31 |
| *Lithodes couesi* | 85.97 | 144 | 574-1,079 | 840 | 26 |
| *Embassichthys bathybius* | 85.67 | 79 | 565-904 | 720 | 18 |
| *Sebastes aleutianus* | 83.35 | 69 | 213-508 | 325 | 18 |
| *Careproctus rastrinus* | 81.57 | 292 | 206-421 | 257 | 38 |
| *Opisthoteuthis californiana* | 77.32 | 190 | 357-1,035 | 553 | 52 |
| *Myoxocephalus polyacanthocephalus* | 67.58 | 27 | 217-314 | 248 | 7 |
| *Synallactes* species | 54.69 | 1,486 | 289-894 | 507 | 4 |
| *Fusitriton oregonensis* | 53.37 | 865 | 206-630 | 327 | 62 |
| *Dasycottus setiger* | 45.60 | 380 | 208-638 | 371 | 53 |
| *Actinauge verrilli* | 44.78 | 4,736 | 218-1,121 | 512 | 38 |
| *Neptunea amianta* | 43.83 | 844 | 266-1,121 | 722 | 63 |
| *Pagurus cornutus* | 41.94 | 853 | 218-918 | 421 | 47 |
| *Elassodiscus tremebundus* | 35.02 | 204 | 357-1,170 | 915 | 35 |
| *Leptagonus frenatus* | 34.87 | 653 | 206-634 | 277 | 43 |
| *Graneledone boreopacifica* | 34.26 | 57 | 904-1,136 | 1,048 | 10 |
| *Buccinum oedematum* | 32.65 | 1,031 | 213-1,170 | 654 | 97 |
| *Staurocalyptus* species | 32.54 | | 879-1,039 | 959 | 2 |
| *Paralomis multispina* | 32.34 | 68 | 739-1,170 | 985 | 15 |
| *Pandalopsis dispar* | 32.12 | 2,141 | 288-528 | 407 | 25 |
| *Lepidopsetta polyxystra* | 31.95 | 50 | 208-330 | 241 | 10 |
| *Strongylocentrotus* species | 31.75 | 476 | 206-539 | 319 | 17 |
| *Ophiopholis aculeata* | 31.57 | 12,660 | 214-1,079 | 537 | 13 |
| *Aptocyclus ventricosus* | 30.98 | 37 | 333-1,108 | 712 | 31 |
| *Allocentrotus fragilis* | 30.17 | 178 | 211-455 | 310 | 14 |
| *Lycodes beringi* | 29.34 | 554 | 209-1,009 | 534 | 76 |
| *Careproctus colletti* | 28.70 | 108 | 415-1,170 | 699 | 29 |
| *Aphrodita* species | 26.29 | 1,181 | 206-1,025 | 476 | 65 |
| *Hippasteria* species | 25.81 | 64 | 214-1,121 | 527 | 23 |
| *Benthoctopus leioderma* | 23.28 | 66 | 240-1,136 | 708 | 37 |
| *Diplopteraster multipes* | 22.71 | 96 | 209-855 | 371 | 36 |
| *Bathyraja abyssicola* | 22.70 | 2 | 1035-1,035 | 1,035 | 1 |
| *Bathylagus* species | 21.83 | 683 | 421-1,108 | 854 | 29 |
| *Elassodiscus caudatus* | 21.07 | 536 | 357-1,108 | 800 | 60 |
| gastropod eggs | 21.01 | | 208-1,079 | 494 | 43 |
| *Aphrodita negligens* | 20.71 | 1,953 | 208-894 | 437 | 41 |
| *Leuroglossus schmidti* | 19.94 | 2,633 | 288-1,170 | 668 | 97 |
| Scyphozoa | 19.77 | 60 | 208-1,170 | 638 | 53 |
| *Solaster* species | 19.45 | 120 | 215-1,136 | 511 | 37 |
| *Paragorgia arborea* | 18.82 | | 711-1,041 | 913 | 4 |
| *Lampetra tridentata* | 18.22 | 60 | 206-1,025 | 522 | 39 |

**Table 6. - - C**ontinued.

| Species name | Total weight (kg) | Total number | Min-Max depth (m) | Mean depth (m) | Frequency (hauls) |
|---|---|---|---|---|---|
| *Pyrulofusus melonis* | 18.16 | 173 | 209-615 | 395 | 33 |
| *Thaleichthys pacificus* | 17.74 | 472 | 208-535 | 313 | 22 |
| *Bathyraja aleutica* egg case | 15.24 | 108 | 209-1,079 | 552 | 15 |
| *Paralomis verrilli* | 15.09 | 16 | 640-1,170 | 938 | 8 |
| *Lophaster furcilliger* | 13.40 | 576 | 213-1,136 | 602 | 53 |
| *Beringius frielei* | 12.29 | 114 | 208-1,056 | 459 | 47 |
| *Pteraster* species | 11.30 | 181 | 206-1,136 | 627 | 49 |
| *Icosteus aenigmaticus* | 11.18 | 3 | 1,012-1,041 | 1,029 | 3 |
| *Bathymaster signatus* | 10.46 | 49 | 206-254 | 220 | 8 |
| *Bathyagonus nigripinnis* | 10.39 | 812 | 217-941 | 565 | 96 |
| *Pyrulofusus deformis* | 9.87 | 52 | 214-429 | 283 | 16 |
| *Pandalopsis ampla* | 9.56 | 578 | 390-1,056 | 875 | 22 |
| Gastropod empty shells | 9.45 | | 209-1,079 | 410 | 31 |
| *Rossia pacifica* | 9.14 | 82 | 209-333 | 248 | 25 |
| Nudibranchia | 8.95 | 536 | 213-1,136 | 492 | 34 |
| Porifera | 8.94 | | 533-565 | 549 | 2 |
| Brisingidae | 8.28 | 18 | 413-640 | 550 | 9 |
| *Antimora microlepis* | 8.05 | 16 | 1,012-1,136 | 1,067 | 6 |
| *Pagurus tanneri* | 7.88 | 239 | 223-1,079 | 727 | 44 |
| *Myxoderma sacculatum* | 7.82 | 91 | 648-1,108 | 933 | 10 |
| *Careproctus cypselurus* | 7.48 | 115 | 769-1,121 | 964 | 22 |
| *Pasiphaea pacifica* | 7.40 | 2,777 | 312-1,023 | 530 | 28 |
| *Pleurogrammus monopterygius* | 7.39 | 5 | 208-288 | 241 | 3 |
| *Eualus* species | 7.35 | 3,623 | 417-1,108 | 879 | 30 |
| *Strongylocentrotus droebachiensis* | 7.11 | 362 | 209-476 | 302 | 13 |
| *Triglops scepticus* | 7.02 | 132 | 206-252 | 223 | 10 |
| *Asteronyx loveni* | 6.80 | 275 | 211-894 | 389 | 19 |
| *Bathyraja parmifera* egg case | 6.69 | 257 | 206-636 | 318 | 27 |
| *Stomphia coccinea* | 6.42 | 117 | 208-836 | 337 | 13 |
| *Sasakiopus salebrosus* | 6.28 | 72 | 313-1,170 | 557 | 40 |
| *Hemilepidotus jordani* | 6.04 | 11 | 208-236 | 223 | 3 |
| *Psolus* species | 5.87 | 230 | 215-1,079 | 857 | 12 |
| *Henricia* species | 5.83 | 338 | 206-1,041 | 435 | 78 |
| *Paragorgia* species | 5.71 | | 422-1,079 | 761 | 6 |
| *Neomenia* cf. *yamamoti* | 5.52 | 156 | 288-1,033 | 867 | 7 |
| *Alepisaurus ferox* | 5.46 | 1 | 517-517 | 517 | 1 |
| *Mycale loveni* | 5.19 | | 214-1,079 | 403 | 11 |
| *Balanus evermanni* | 4.46 | 3 | 254-256 | 255 | 2 |
| *Pagurus trigonocheirus* | 4.30 | 131 | 217-293 | 248 | 9 |
| *Stenobrachius* species | 4.28 | 581 | 357-1,170 | 731 | 62 |
| *Pagurus townsendi* | 4.15 | 133 | 535-961 | 715 | 22 |
| *Sebastes variabilis* | 4.05 | 3 | 213-289 | 245 | 3 |
| *Ophiopholis* species | 3.94 | 1,578 | 215-866 | 594 | 11 |
| *Coryphaenoides longifilis* | 3.75 | 22 | 1,008-1,056 | 1,023 | 5 |
| Crinoidea | 3.71 | 234 | 365-1,136 | 735 | 13 |
| *Icelus spiniger* | 3.70 | 116 | 208-293 | 237 | 20 |
| *Bathylagus pacificus* | 3.52 | 147 | 613-1,170 | 937 | 23 |
| *Hippasteria spinosa* | 3.43 | 5 | 357-390 | 374 | 2 |
| *Icelus canaliculatus* | 3.34 | 272 | 386-866 | 597 | 31 |
| *Phacellophora camtschatica* | 3.27 | 9 | 211-941 | 482 | 8 |
| *Oneirodes thompsoni* | 3.18 | 19 | 815-1,136 | 971 | 18 |
| *Metridium farcimen* | 3.04 | 28 | 206-257 | 245 | 5 |
| *Pseudarchaster parelii* | 2.81 | 102 | 208-1,108 | 680 | 28 |
| *Tritonia diomedea* | 2.72 | 446 | 354-838 | 511 | 4 |
| *Isidella* species | 2.71 | | 528-1,041 | 846 | 6 |

**Table 6. - - C**ontinued.

| Species name | Total weight (kg) | Total number | Min-Max depth (m) | Mean depth (m) | Frequency (hauls) |
|---|---|---|---|---|---|
| *Stenobrachius leucopsarus* | 2.65 | 415 | 357-1,170 | 710 | 46 |
| *Gonatopsis borealis* | 2.61 | 29 | 206-1,039 | 639 | 12 |
| *Heterozonias alternatus* | 2.41 | 14 | 641-913 | 774 | 3 |
| *Lampanyctus jordani* | 2.39 | 74 | 311-1,056 | 599 | 23 |
| *Bathyraja interrupta* egg case | 2.38 | 104 | 206-1,056 | 392 | 33 |
| *Nearchaster pedicellaris* | 2.25 | 51 | 662-662 | 662 | 1 |
| *Hyas lyratus* | 2.13 | 148 | 206-633 | 292 | 30 |
| *Pteraster jordani* | 2.06 | 49 | 432-1,079 | 608 | 8 |
| *Lycenchelys camchatica* | 2.02 | 24 | 636-1,079 | 855 | 10 |
| *Pagurus confragosus* | 1.98 | 43 | 208-633 | 260 | 11 |
| *Bathylagus milleri* | 1.79 | 44 | 636-1,041 | 874 | 11 |
| *Bathyraja trachura* egg case | 1.78 | 129 | 503-1,079 | 824 | 24 |
| *Molpadia* species | 1.77 | 47 | 516-516 | 516 | 1 |
| *Halargyreus johnsonii* | 1.77 | 8 | 918-1,016 | 993 | 5 |
| *Ctenodiscus crispatus* | 1.71 | 120 | 217-1,108 | 339 | 10 |
| *Sebastolobus macrochir* | 1.66 | 3 | 839-894 | 867 | 2 |
| *Mediaster* species | 1.62 | 77 | 217-1,056 | 690 | 17 |
| *Chauliodus macouni* | 1.61 | 54 | 419-1,136 | 917 | 32 |
| *Aphrodita japonica* | 1.43 | 154 | 662-662 | 662 | 1 |
| *Oneirodes bulbosus* | 1.43 | 12 | 711-1,121 | 941 | 12 |
| Liparidae | 1.38 | 136 | 232-1,170 | 842 | 29 |
| *Periphylla periphylla* | 1.30 | 75 | 517-1,108 | 821 | 43 |
| *Crystallichthys cyclospilus* | 1.28 | 1 | 208-208 | 208 | 1 |
| *Coryphaenoides filifer* | 1.21 | 1 | 1,035-1,035 | 1,035 | 1 |
| Pennatulacea | 1.21 | 12 | 213-894 | 435 | 14 |
| *Arctomelon stearnsii* | 1.17 | 16 | 218-640 | 445 | 13 |
| *Hemilepidotus papilio* | 1.15 | 1 | 225-225 | 225 | 1 |
| *Poroclinus rothrocki* | 1.13 | 16 | 449-449 | 449 | 1 |
| *Buccinum* species | 1.09 | 38 | 390-1,079 | 838 | 15 |
| *Stenobrachius nannochir* | 1.08 | 142 | 471-1,170 | 843 | 19 |
| *Metridium* species | 1.07 | 15 | 211-535 | 286 | 9 |
| *Arctomelon* species | 1.04 | 36 | 220-674 | 516 | 9 |
| *Japetella diaphana* | 1.00 | 3 | 820-1,013 | 947 | 3 |
| *Polycheata* species | 0.96 | 373 | 413-1,079 | 717 | 6 |
| *Primnoa* species | 0.93 | | 874-874 | 874 | 1 |
| *Plumarella* species | 0.93 | | 232-616 | 446 | 5 |
| *Bathyraja minispinosa* egg case | 0.91 | 62 | 213-1,079 | 566 | 17 |
| *Buccinum costatum* | 0.86 | 30 | 386-1,121 | 851 | 11 |
| *Plicatellopsis amphispicula* | 0.81 | | 496-496 | 496 | 1 |
| *Bothrocara nyx* | 0.74 | 85 | 738-1,170 | 946 | 8 |
| *Galiteuthis phyllura* | 0.72 | 6 | 555-958 | 725 | 4 |
| *Sebastes polyspinis* | 0.69 | 1 | 413-413 | 413 | 1 |
| *Elassochirus tenuimanus* | 0.68 | 5 | 808-808 | 808 | 1 |
| *Pandalopsis* species | 0.64 | 41 | 615-1,056 | 862 | 7 |
| *Laqueus californianus* | 0.63 | 74 | 357-771 | 596 | 4 |
| Bivalvia empty shells | 0.58 | | 208-769 | 352 | 9 |
| Antipatharia | 0.57 | | 254-1,033 | 818 | 5 |
| *Argis* species | 0.56 | 123 | 211-448 | 318 | 19 |
| *Elassochirus cavimanus* | 0.55 | 15 | 206-264 | 226 | 8 |
| *Pteraster militaris* | 0.53 | 6 | 232-232 | 232 | 1 |
| *Pagurus aleuticus* | 0.53 | 6 | 206-220 | 212 | 4 |
| *Crossaster* species | 0.53 | 44 | 206-1,170 | 570 | 10 |
| Holothuroidea | 0.52 | 15 | 209-1,056 | 519 | 12 |
| *Icelus euryops* | 0.46 | 36 | 232-565 | 413 | 6 |
| *Lumpenella longirostris* | 0.45 | 8 | 429-641 | 540 | 4 |

**Table 6. - - C**ontinued.

| Species name | Total weight (kg) | Total number | Min-Max depth (m) | Mean depth (m) | Frequency (hauls) |
|---|---|---|---|---|---|
| *Rhinoliparis* species | 0.42 | 41 | 215-1,056 | 859 | 11 |
| *Lycodapus* species | 0.41 | 107 | 357-1,079 | 757 | 27 |
| *Lillipathes* species *B* | 0.40 | | 866-866 | 866 | 1 |
| *Chiroteuthis calyx* | 0.39 | 1 | 674-674 | 674 | 1 |
| *Paraliparis dactylosus* | 0.36 | 6 | 739-1,035 | 885 | 4 |
| *Lycodes brevipes* | 0.36 | 6 | 230-236 | 233 | 2 |
| *Atolla* species | 0.35 | 13 | 548-1,039 | 857 | 9 |
| *Oneirodes* species | 0.33 | 2 | 421-738 | 580 | 2 |
| *Keratoisis* species | 0.31 | | 855-855 | 855 | 1 |
| *Neptunea lyrata* | 0.29 | 5 | 230-771 | 501 | 2 |
| *Sebastes babcocki* | 0.27 | 1 | 232-232 | 232 | 1 |
| Decapodiformes | 0.27 | 2 | 417-517 | 467 | 2 |
| *Nannobrachium regale* | 0.25 | 19 | 879-1,039 | 975 | 4 |
| *Neomenia* species | 0.24 | 11 | 1,108-1,108 | 1,108 | 1 |
| *Gonatus onyx* | 0.24 | 1 | 464-464 | 464 | 1 |
| Octopodidae | 0.24 | 3 | 838-1,079 | 919 | 3 |
| *Molpadia intermedia* | 0.23 | 6 | 318-1,012 | 665 | 2 |
| *Tactostoma macropus* | 0.21 | 1 | 839-839 | 839 | 1 |
| *Mediaster aequalis* | 0.19 | 8 | 457-1,012 | 729 | 5 |
| *Pasiphaea tarda* | 0.19 | 14 | 941-1,170 | 1,019 | 8 |
| *Beringius* species | 0.17 | 4 | 217-230 | 224 | 2 |
| Ascidiacea | 0.17 | | 662-662 | 662 | 1 |
| *Lyopsetta exilis* | 0.17 | 2 | 208-211 | 210 | 2 |
| Melamphaidae | 0.16 | 6 | 691-1,108 | 966 | 4 |
| *Pandalopsis longirostris* | 0.16 | 18 | 432-1,108 | 770 | 2 |
| *Balanus* species | 0.16 | 3 | 215-462 | 370 | 3 |
| Bryozoa | 0.15 | | 288-866 | 496 | 3 |
| *Careproctus* species | 0.15 | 3 | 1,039-1,121 | 1,080 | 2 |
| Brachiopoda | 0.15 | 71 | 215-432 | 285 | 4 |
| *Bathylagus ochotensis* | 0.12 | 6 | 576-1,033 | 853 | 6 |
| *Labidochirus splendescens* | 0.12 | 11 | 223-313 | 265 | 6 |
| *Bathyraja abyssicola* egg case | 0.11 | 4 | 702-1,136 | 919 | 2 |
| *Pagurus brandti* | 0.11 | 6 | 206-214 | 210 | 2 |
| Polychaeta | 0.11 | 28 | 482-548 | 515 | 2 |
| *Crangon* species | 0.10 | 51 | 211-1,016 | 342 | 15 |
| *Eualus biunguis* | 0.10 | 42 | 576-1,025 | 887 | 6 |
| *Bathyraja maculata* egg case | 0.10 | 2 | 333-528 | 431 | 2 |
| *Percis japonicus* | 0.10 | 1 | 293-293 | 293 | 1 |
| *Bulbus fragilis* | 0.10 | 11 | 217-241 | 227 | 3 |
| *Oregonia gracilis* | 0.10 | 8 | 206-629 | 369 | 7 |
| *Solaster* species A | 0.10 | 1 | 434-434 | 434 | 1 |
| *Lampanyctus* species | 0.10 | 2 | 1,023-1,108 | 1,066 | 2 |
| *Neptunea* species | 0.09 | 2 | 632-913 | 773 | 2 |
| Gonatidae species | 0.09 | 1 | 256-256 | 256 | 1 |
| *Lophaster* species | 0.09 | 3 | 217-1,108 | 663 | 2 |
| *Pagurus* species | 0.08 | 4 | 257-1,020 | 639 | 2 |
| Myctophidae | 0.08 | 1 | 1,023-1,023 | 1,023 | 1 |
| *Bassozetus zenkevitchi* | 0.07 | 1 | 1,170-1,170 | 1,170 | 1 |
| *Bathyraja taranetzi* egg case | 0.07 | 7 | 289-589 | 425 | 5 |
| *Careproctus lycopersicus* | 0.06 | 2 | 961-1,108 | 1035 | 2 |
| Pycnogonida | 0.06 | 28 | 413-1,121 | 774 | 14 |
| *Plumarella* species 1 | 0.06 | | 629-629 | 629 | 1 |
| *Hippasteria* species B | 0.06 | 1 | 1,079-1,079 | 1,079 | 1 |
| *Gonatus* species | 0.06 | 1 | 449-449 | 449 | 1 |
| *Rhinoliparis attenuatus* | 0.05 | 6 | 820-1,121 | 925 | 5 |

**Table 6. - - C**ontinued.

| Species name | Total weight (kg) | Total number | Min-Max depth (m) | Mean depth (m) | Frequency (hauls) |
|---|---|---|---|---|---|
| *Bothrocara* species | 0.05 | 17 | 565-1,020 | 807 | 3 |
| *Benthalbella dentata* | 0.05 | 1 | 855-855 | 855 | 1 |
| *Paraliparis ulochir* | 0.05 | 8 | 539-820 | 700 | 6 |
| *Macropinna microstoma* | 0.05 | 1 | 636-636 | 636 | 1 |
| *Lebbeus* species | 0.05 | 4 | 838-1,170 | 1,004 | 2 |
| *Paraliparis cephalus* | 0.04 | 17 | 313-941 | 704 | 5 |
| *Flustra serrulata* | 0.04 | | 413-413 | 413 | 1 |
| *Diaphus theta* | 0.04 | 3 | 330-421 | 389 | 3 |
| *Zesticelus profundorum* | 0.04 | 19 | 422-1,056 | 859 | 13 |
| Decapoda shrimp | 0.04 | 21 | 533-533 | 533 | 1 |
| *Pteraster obscurus* | 0.04 | 1 | 206-206 | 206 | 1 |
| *Bothrocara pusillum* | 0.04 | 5 | 293-1,013 | 645 | 3 |
| *Paraliparis* species | 0.03 | 5 | 894-894 | 894 | 1 |
| *Allocentrotus* species | 0.03 | 1 | 260-260 | 260 | 1 |
| *Lophaster vexator* | 0.03 | 1 | 632-632 | 632 | 1 |
| *Bathyraja* species egg case | 0.03 | 1 | 1,025-1,025 | 1,025 | 1 |
| *Crossaster papposus* | 0.03 | 2 | 208-215 | 212 | 2 |
| *Careproctus phasma* | 0.03 | 1 | 217-217 | 217 | 1 |
| Ascidiacea | 0.03 | | 542-542 | 542 | 1 |
| *Volutopsius filosus* | 0.02 | 1 | 211-211 | 211 | 1 |
| Gonostomatidae | 0.02 | 7 | 615-961 | 824 | 4 |
| *Chlamys* species | 0.02 | 8 | 913-913 | 913 | 1 |
| *Acantholiparis opercularis* | 0.02 | 4 | 961-1,025 | 998 | 3 |
| Ctenophora | 0.02 | 1 | 707-707 | 707 | 1 |
| *Melamphaes lugubris* | 0.02 | 1 | 839-839 | 839 | 1 |
| Thaliacea | 0.02 | 4 | 448-1,039 | 704 | 3 |
| *Delectopecten vancouverensis* | 0.02 | 12 | 904-1,009 | 957 | 2 |
| Ophiuroidea | 0.01 | 1 | 432-432 | 432 | 1 |
| Euphausiacea | 0.01 | 20 | 535-535 | 535 | 1 |
| *Bathyphelia australis* | 0.01 | | 248-248 | 248 | 1 |
| *Euspira pallida* | 0.01 | 1 | 314-314 | 314 | 1 |
| *Eunoe depressa* | 0.01 | 2 | 214-629 | 422 | 2 |
| *Oregonia bifurca* | 0.01 | 1 | 1,025-1,025 | 1,025 | 1 |
| *Elassochirus* species | 0.01 | 1 | 289-289 | 289 | 1 |
| *Otukaia kiheiziebisu* | 0.01 | 1 | 1,033-1,033 | 1,033 | 1 |
| *Ancistrolepis eucosmius* | 0.01 | 1 | 314-314 | 314 | 1 |
| *Paralomis* species | 0.01 | 1 | 1,041-1,041 | 1,041 | 1 |
| *Swiftia pacifica* | 0.01 | | 354-354 | 354 | 1 |
| *Yoldia* species | 0.01 | 9 | 214-1,121 | 667 | 4 |
| *Colus* species | 0.01 | 2 | 314-325 | 320 | 2 |
| *Aspidophoroides bartoni* | 0.01 | 1 | 236-236 | 236 | 1 |
| *Lipariscus nanus* | 0.01 | 3 | 874-874 | 874 | 1 |
| *Swiftia* species | 0.01 | | 625-625 | 625 | 1 |
| *Bentheogennema borealis* | <0.01 | 1 | 961-961 | 961 | 1 |
| Osteichthyes | <0.01 | | 879-879 | 879 | 1 |
| *Neognathophausia* species | <0.01 | 1 | 839-839 | 839 | 1 |
| *Chaetopterus* species | <0.01 | 1 | 634-634 | 634 | 1 |
| *Boreotrophon* species | <0.01 | 5 | 1,079-1,079 | 1,079 | 1 |
| *Crangon septemspinosa* | <0.01 | 2 | 240-240 | 240 | 1 |
| *Scalpellum cornutum* | <0.01 | 1 | 248-248 | 248 | 1 |
| *Nectoliparis pelagicus* | <0.01 | 1 | 421-421 | 421 | 1 |
| *Crangon dalli* | <0.01 | 1 | 208-208 | 208 | 1 |
| Isopoda | <0.01 | 1 | 535-535 | 535 | 1 |
| Sipuncula | <0.01 | 1 | 879-879 | 879 | 1 |
| *Cyclothone* species | <0.01 | 1 | 958-958 | 958 | 1 |

**Table 7. - -** Summary of biological data collected during the 2012 EBSS survey.

| Scientific name | Individuals measured | Otoliths collected | Individual weights | Stomach samples |
|---|---|---|---|---|
| *Albatrossia pectoralis* | 9,088 | 537 | 534 | |
| *Sebastes alutus* | 3,459 | 475 | 472 | |
| *Atheresthes stomias* | 5,897 | 476 | 474 | |
| *Coryphaenoides cinereus* | 7,071 | | | |
| *Theragra chalcogramma* | 3,317 | | | 313 |
| *Atheresthes evermanni* | 3,623 | 693 | 688 | 452 |
| *Sebastolobus alascanus* | 5,073 | | | |
| *Bathyraja aleutica* | 1,264 | | 10 | 112 |
| *Hippoglossoides elassodon* | 5,197 | | | |
| *Bathyraja parmifera* | 841 | | | 16 |
| *Reinhardtius hippoglossoides* | 2,144 | 483 | 480 | 190 |
| *Bothrocara zestum* | 1,633 | | | |
| *Glyptocephalus zachirus* | 2,670 | | | |
| *Anoplopoma fimbria* | 623 | 140 | 140 | |
| *Hippoglossus stenolepis* | 233 | | | |
| *Sebastes borealis* | 282 | 273 | 273 | |
| *Bathyraja maculata* | 335 | | | 37 |
| *Gadus macrocephalus* | 349 | | | 128 |
| *Bathyraja lindbergi* | 521 | | | 66 |
| *Hemitripterus bolini* | 239 | | 10 | |
| *Bathyraja interrupta* | 595 | | | 58 |
| *Coryphaenoides acrolepis* | 2,736 | | | |
| *Bathyraja trachura* | 230 | | | 79 |
| *Lycodes concolor* | 332 | | | |
| *Somniosus pacificus* | 23 | | 23 | |
| *Bathyraja minispinosa* | 188 | | | |
| *Berryteuthis magister* | 865 | | | |
| *Psychrolutes phrictus* | 95 | | 14 | |
| *Malacocottus zonurus* | 1,119 | | | |
| *Bathyraja taranetzi* | 213 | | | 5 |
| *Bothrocara brunneum* | 167 | | | |
| *Microstomus pacificus* | 107 | | | |
| *Sebastes melanostictus* | 161 | 94 | 93 | |
| *Careproctus melanurus* | 215 | | | |
| *Zaprora silenus* | 20 | | | |
| *Embassichthys bathybius* | 79 | | | |
| *Sebastes aleutianus* | 69 | 69 | 69 | |
| *Myoxocephalus polyacanthocephalus* | 26 | | | |
| *Dasycottus setiger* | 377 | | | |
| *Lepidopsetta polyxystra* | 50 | | | |
| *Aptocyclus ventricosus* | 33 | | | |
| *Lycodes beringi* | 531 | | | |
| *Bathyraja abyssicola* | 2 | | | 2 |
| *Bathymaster signatus* | 1 | | | |
| *Antimora microlepis* | 16 | | | |
| *Pleurogrammus monopterygius* | 3 | | | |
| *Hemilepidotus jordani* | 9 | | | |
| *Sebastes variabilis* | 3 | | | |
| *Sebastolobus macrochir* | 2 | | | |
| *Hemilepidotus papilio* | 1 | | | |
| *Sebastes polyspinis* | 1 | | | |
| **Totals** | **62,128** | **3,240** | **3,280** | **1,458** |

**Table 8.** - - Summary of vouchers specimens collected during the 2012 EBSS survey. One lot consists of an individual or group of individuals of a single species.

| Species name | Species name | Lots |
|---|---|---|
| Pacific lamprey | *Lampetra tridentata* | 1 |
| skate egg case | *Bathyraja* species egg case | 1 |
| deepsea skate egg case | *Bathyraja abyssicola* egg case | 1 |
| slender sole | *Lyopsetta exilis* | 2 |
| popeye blacksmelt | *Bathylagus ochotensis* | 1 |
| slope assfish | *Bassozetus zenkevitchi* | 1 |
| Pacific grenadier | *Coryphaenoides acrolepis* | 4 |
| popeye grenadier | *Coryphaenoides cinereus* | 3 |
| filamented grenadier | *Coryphaenoides filifer* | 1 |
| longfin grenadier | *Coryphaenoides longifilis* | 1 |
| Pacific flatnose | *Antimora microlepis* | 4 |
| bristlemouth species | Gonostomatidae | 1 |
| ragfish | *Icosteus aenigmaticus* | 1 |
| snailfish species | Liparidae | 29 |
| snailfish species | *Careproctus* species | 2 |
| monster snailfish | *Careproctus phasma* | 1 |
| blackfaced red snailfish | *Paraliparis ulochir* | 2 |
| salmon snailfish | *Careproctus rastrinus* | 10 |
| tomato snailfish | *Careproctus lycopersicus* | 1 |
| snailfish unident. | *Paraliparis* species | 1 |
| pygmy snailfish | *Lipariscus nanus* | 1 |
| snailfish species | *Rhinoliparis* species | 3 |
| spiny snailfish | *Acantholiparis opercularis* | 2 |
| hairy-lure dreamer | *Oneirodes bulbosus* | 6 |
| dreamer | *Oneirodes thompsoni* | 7 |
| Alaska eelpout | *Bothrocara pusillum* | 1 |
| shadow eelpout | *Bothrocara nyx* | 1 |
| Kamchatka eelpout | *Lycenchelys camchatica* | 2 |
| eelpout species | *Bothrocara* species | 2 |
| eelpout species | *Lycodapus* species | 19 |
| shortspine thornyhead | *Sebastolobus alascanus* | 1 |
| sponge species | *Swiftia* species | 1 |
| Kamchatka coral | *Paragorgia arborea* | 2 |
| articulated bamboo coral | *Isidella* species | 2 |
| shrimp species | *Lebbeus* species | 1 |
| shrimp species | *Oregonia bifurca* | 1 |
| fragile moonsnail | *Bulbus fragilis* | 1 |
| snail species | *Neptunea* species | 1 |
| snail species | *Boreotrophon* species | 1 |
| snail species | *Otukaia kiheiziebisu* | 1 |
| three-ribbed whelk | *Ancistrolepis eucosmius* | 1 |
| octopus species | Octopodidae | 1 |

**Table 9. - -** Biomass, population, CPUE and variance estimates of all fishes and invertebrates encountered during the 2012 EBSS survey. Species are listed alphabetically by scientific name.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Acantholiparis opercularis* | 200-600 | | | | | | | | |
| | 600-1,200 | 8.59E-02 | 1.95E-03 | 1.94E+04 | 1.14E+08 | 5.96E-05 | 9.66E-08 | 1.34E-02 | 5.15E-03 |
| | All depths | 8.59E-02 | 1.95E-03 | 1.94E+04 | 1.14E+08 | 2.46E-05 | 4.04E-08 | 5.51E-03 | 2.15E-03 |
| *Actinauge verrilli* | 200-600 | 3.43E+01 | 8.04E+01 | 4.73E+05 | 1.65E+10 | 1.76E-02 | 2.18E-03 | 2.47E-01 | 4.79E-01 |
| | 600-1,200 | 2.50E+02 | 2.27E+04 | 3.05E+07 | 3.99E+14 | 1.50E-01 | 5.57E-01 | 1.77E+01 | 9.57E+03 |
| | All depths | 2.84E+02 | 2.28E+04 | 3.10E+07 | 3.99E+14 | 7.23E-02 | 2.34E-01 | 7.43E+00 | 4.00E+03 |
| Actiniaria | 200-600 | 1.08E+03 | 5.05E+05 | 1.09E+07 | 2.96E+13 | 6.32E-01 | 1.82E+01 | 6.16E+00 | 1.08E+03 |
| | 600-1,200 | 2.26E+02 | 9.93E+03 | 1.05E+07 | 5.56E+13 | 1.45E-01 | 4.48E-01 | 6.59E+00 | 1.62E+03 |
| | All depths | 1.30E+03 | 5.15E+05 | 2.14E+07 | 8.53E+13 | 4.31E-01 | 1.09E+01 | 6.34E+00 | 1.29E+03 |
| *Albatrossia pectoralis* | 200-600 | 1.91E+05 | 1.21E+09 | 4.05E+07 | 4.62E+13 | 1.08E+02 | 6.08E+04 | 2.27E+01 | 2.48E+03 |
| | 600-1,200 | 3.62E+05 | 2.23E+09 | 1.13E+08 | 2.32E+14 | 2.74E+02 | 1.19E+05 | 8.50E+01 | 1.22E+04 |
| | All depths | 5.53E+05 | 3.44E+09 | 1.53E+08 | 2.78E+14 | 1.76E+02 | 9.09E+04 | 4.84E+01 | 7.38E+03 |
| *Alepisaurus ferox* | 200-600 | 2.30E+01 | 5.30E+02 | 4.22E+03 | 1.78E+07 | 1.17E-02 | 1.53E-02 | 2.15E-03 | 5.14E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.30E+01 | 5.30E+02 | 4.22E+03 | 1.78E+07 | 6.90E-03 | 8.99E-03 | 1.26E-03 | 3.02E-04 |
| *Allocentrotus fragilis* | 200-600 | 1.48E+02 | 2.99E+03 | 8.81E+05 | 1.19E+11 | 6.96E-02 | 8.56E-02 | 4.16E-01 | 3.33E+00 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.48E+02 | 2.99E+03 | 8.81E+05 | 1.19E+11 | 4.09E-02 | 5.13E-02 | 2.44E-01 | 1.99E+00 |
| *Allocentrotus* species | 200-600 | 4.43E-01 | 1.96E-01 | 1.38E+04 | 1.92E+08 | 2.26E-04 | 5.67E-06 | 7.06E-03 | 5.54E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.43E-01 | 1.96E-01 | 1.38E+04 | 1.92E+08 | 1.33E-04 | 3.33E-06 | 4.15E-03 | 3.25E-03 |
| *Ancistrolepis eucosmius* | 200-600 | 4.70E-02 | 2.21E-03 | 4.70E+03 | 2.21E+07 | 2.61E-05 | 7.56E-08 | 2.61E-03 | 7.56E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.70E-02 | 2.21E-03 | 4.70E+03 | 2.21E+07 | 1.53E-05 | 4.44E-08 | 1.53E-03 | 4.44E-04 |
| Annelida | 200-600 | 4.25E-01 | 1.43E-01 | 1.05E+05 | 9.14E+09 | 2.17E-04 | 4.17E-06 | 5.35E-02 | 2.66E-01 |
| | 600-1,200 | 3.77E+00 | 1.27E+01 | 1.51E+06 | 2.20E+12 | 2.77E-03 | 5.35E-04 | 1.11E+00 | 9.29E+01 |
| | All depths | 4.19E+00 | 1.28E+01 | 1.61E+06 | 2.21E+12 | 1.27E-03 | 2.23E-04 | 4.89E-01 | 3.85E+01 |
| *Anoplopoma fimbria* | 200-600 | 3.22E+03 | 8.57E+05 | 1.41E+06 | 1.77E+11 | 1.70E+00 | 2.76E+01 | 7.40E-01 | 5.73E+00 |
| | 600-1,200 | 5.18E+03 | 7.11E+05 | 1.62E+06 | 7.87E+10 | 3.71E+00 | 3.97E+01 | 1.16E+00 | 4.54E+00 |
| | All depths | 8.40E+03 | 1.57E+06 | 3.03E+06 | 2.56E+11 | 2.53E+00 | 3.34E+01 | 9.15E-01 | 5.25E+00 |
| *Antimora microlepis* | 200-600 | | | | | | | | |
| | 600-1,200 | 4.81E+01 | 3.49E+02 | 9.78E+04 | 1.40E+09 | 3.16E-02 | 1.90E-02 | 6.42E-02 | 8.28E-02 |
| | All depths | 4.81E+01 | 3.49E+02 | 9.78E+04 | 1.40E+09 | 1.30E-02 | 8.01E-03 | 2.65E-02 | 3.49E-02 |
| Antipatheria | 200-600 | 2.01E-01 | 4.03E-02 | | | | | | |
| | 600-1,200 | 5.43E+00 | 2.55E+01 | | | | | | |
| | All depths | 5.63E+00 | 2.55E+01 | | | | | | |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Aphrocallistes vastus* | 200-600 | 6.35E+02 | 3.91E+04 | | | | | | |
| | 600-1,200 | 5.19E+02 | 3.51E+04 | | | | | | |
| | All depths | 1.15E+03 | 7.42E+04 | | | | | | |
| *Aphrodita japonica* | 200-600 | | | | | | | | |
| | 600-1,200 | | | 7.38E+05 | 5.44E+11 | 5.06E-03 | 1.99E-03 | 5.43E-01 | 2.30E+01 |
| | All depths | 6.87E+00 | 4.72E+01 | 7.38E+05 | 5.44E+11 | 2.09E-03 | 8.23E-04 | 2.24E-01 | 9.49E+00 |
| *Aphrodita negligens* | 200-600 | 7.88E+01 | 7.55E+02 | 7.66E+06 | 7.77E+12 | 3.95E-02 | 2.30E-02 | 3.78E+00 | 2.33E+02 |
| | 600-1,200 | 1.38E+01 | 6.62E+01 | 1.23E+06 | 5.59E+11 | 1.01E-02 | 3.11E-03 | 8.98E-01 | 2.62E+01 |
| | All depths | 9.26E+01 | 8.21E+02 | 8.89E+06 | 8.33E+12 | 2.73E-02 | 1.49E-02 | 2.58E+00 | 1.49E+02 |
| *Aphrodita* species | 200-600 | 1.01E+02 | 6.59E+02 | 4.31E+06 | 1.06E+12 | 5.80E-02 | 2.74E-02 | 2.51E+00 | 4.34E+01 |
| | 600-1,200 | 1.65E+01 | 5.34E+01 | 9.19E+05 | 2.11E+11 | 1.34E-02 | 2.72E-03 | 7.34E-01 | 9.81E+00 |
| | All depths | 1.17E+02 | 7.12E+02 | 5.23E+06 | 1.27E+12 | 3.96E-02 | 1.76E-02 | 1.78E+00 | 3.02E+01 |
| *Aptocyclus ventricosus* | 200-600 | 7.28E+01 | 7.86E+02 | 7.27E+04 | 3.88E+08 | 3.98E-02 | 2.79E-02 | 3.95E-02 | 1.50E-02 |
| | 600-1,200 | 7.79E+01 | 6.56E+02 | 1.22E+05 | 6.85E+08 | 5.81E-02 | 2.74E-02 | 8.74E-02 | 3.00E-02 |
| | All depths | 1.51E+02 | 1.44E+03 | 1.95E+05 | 1.07E+09 | 4.74E-02 | 2.76E-02 | 5.93E-02 | 2.17E-02 |
| *Arctomelon* species | 200-600 | 2.36E+00 | 8.82E-01 | 1.15E+05 | 6.94E+09 | 1.19E-03 | 2.86E-05 | 5.86E-02 | 2.05E-01 |
| | 600-1,200 | 2.27E+00 | 2.94E+00 | 3.98E+04 | 9.36E+08 | 1.67E-03 | 1.32E-04 | 2.93E-02 | 4.20E-02 |
| | All depths | 4.63E+00 | 3.82E+00 | 1.55E+05 | 7.87E+09 | 1.39E-03 | 7.10E-05 | 4.65E-02 | 1.37E-01 |
| *Arctomelon stearnsii* | 200-600 | 4.25E+00 | 2.15E+00 | 5.77E+04 | 3.91E+08 | 2.41E-03 | 7.24E-05 | 3.18E-02 | 1.20E-02 |
| | 600-1,200 | 1.28E+00 | 5.47E-01 | 1.79E+04 | 1.09E+08 | 9.21E-04 | 2.26E-05 | 1.30E-02 | 4.77E-03 |
| | All depths | 5.53E+00 | 2.70E+00 | 7.56E+04 | 5.01E+08 | 1.79E-03 | 5.22E-05 | 2.40E-02 | 9.07E-03 |
| *Argis* species | 200-600 | 2.66E+00 | 6.85E-01 | 5.86E+05 | 2.47E+10 | 1.35E-03 | 2.26E-05 | 2.94E-01 | 7.96E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.66E+00 | 6.85E-01 | 5.86E+05 | 2.47E+10 | 7.92E-04 | 1.37E-05 | 1.73E-01 | 4.87E-01 |
| Ascidiacea | 200-600 | | | | | | | | |
| | 600-1,200 | 8.24E-01 | 6.79E-01 | | | | | | |
| | All depths | 8.24E-01 | 6.79E-01 | | | | | | |
| Ascidiacea compound | 200-600 | 1.10E-01 | 1.21E-02 | | | | | | |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.10E-01 | 1.21E-02 | | | | | | |
| *Aspidophoroides bartoni* | 200-600 | 4.48E-02 | 2.00E-03 | 4.48E+03 | 2.00E+07 | 2.49E-05 | 6.86E-08 | 2.49E-03 | 6.86E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.48E-02 | 2.00E-03 | 4.48E+03 | 2.00E+07 | 1.46E-05 | 4.03E-08 | 1.46E-03 | 4.03E-04 |
| *Asteronyx loveni* | 200-600 | 2.68E+01 | 1.60E+02 | 9.01E+05 | 1.87E+11 | 1.34E-02 | 4.69E-03 | 4.52E-01 | 5.59E+00 |
| | 600-1,200 | 5.07E+00 | 1.94E+01 | 3.85E+05 | 1.30E+11 | 3.56E-03 | 7.33E-04 | 2.69E-01 | 4.91E+00 |
| | All depths | 3.18E+01 | 1.79E+02 | 1.29E+06 | 3.17E+11 | 9.32E-03 | 3.07E-03 | 3.76E-01 | 5.29E+00 |
| *Asteronyx* species | 200-600 | 1.04E+03 | 3.39E+05 | 4.26E+06 | 1.58E+13 | 1.70E-01 | 2.92E+00 | 2.22E+00 | 4.63E+02 |
| | 600-1,200 | 1.03E+01 | 1.80E+01 | 4.23E+05 | 3.28E+10 | 7.21E-03 | 1.09E-03 | 2.93E-01 | 2.17E+00 |
| | All depths | 1.05E+03 | 3.39E+05 | 4.68E+06 | 1.58E+13 | 1.02E-01 | 1.70E+00 | 1.41E+00 | 2.71E+02 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Atheresthes evermanni* | 200-600 | 2.64E+04 | 5.03E+07 | 2.29E+07 | 4.04E+13 | 1.39E+01 | 1.55E+03 | 1.21E+01 | 1.21E+03 |
| | 600-1,200 | 6.33E+03 | 3.32E+05 | 3.31E+06 | 1.29E+11 | 4.55E+00 | 4.26E+01 | 2.37E+00 | 1.50E+01 |
| | All depths | 3.27E+04 | 5.06E+07 | 2.62E+07 | 4.06E+13 | 1.01E+01 | 9.44E+02 | 8.07E+00 | 7.39E+02 |
| *Atheresthes stomias* | 200-600 | 7.25E+04 | 1.71E+08 | 6.61E+07 | 9.09E+13 | 3.91E+01 | 6.26E+03 | 3.52E+01 | 3.16E+03 |
| | 600-1,200 | 3.11E+02 | 5.54E+03 | 1.70E+05 | 1.88E+09 | 2.30E-01 | 2.87E-01 | 1.26E-01 | 8.88E-02 |
| | All depths | 7.28E+04 | 1.71E+08 | 6.63E+07 | 9.09E+13 | 2.31E+01 | 4.03E+03 | 2.07E+01 | 2.15E+03 |
| *Atolla* species | 200-600 | 6.87E-02 | 4.72E-03 | 4.29E+03 | 1.84E+07 | 3.50E-05 | 1.36E-07 | 2.19E-03 | 5.32E-04 |
| | 600-1,200 | 2.06E+00 | 7.18E-01 | 7.36E+04 | 8.35E+08 | 1.38E-03 | 2.51E-05 | 4.87E-02 | 2.61E-02 |
| | All depths | 2.13E+00 | 7.23E-01 | 7.79E+04 | 8.54E+08 | 5.92E-04 | 1.08E-05 | 2.14E-02 | 1.15E-02 |
| *Balanus evermanni* | 200-600 | 1.56E+01 | 1.33E+02 | 1.59E+04 | 2.51E+08 | 2.82E-03 | 8.74E-04 | 8.16E-03 | 7.33E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.56E+01 | 1.33E+02 | 1.59E+04 | 2.51E+08 | 1.65E-03 | 5.11E-04 | 4.78E-03 | 4.29E-03 |
| *Balanus* species | 200-600 | 9.76E-01 | 4.08E-01 | 2.14E+04 | 1.91E+08 | 4.98E-04 | 1.17E-05 | 1.09E-02 | 5.44E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 9.76E-01 | 4.08E-01 | 2.14E+04 | 1.91E+08 | 2.92E-04 | 6.88E-06 | 6.41E-03 | 3.21E-03 |
| *Bassozetus zenkevitchi* | 200-600 | | | | | 2.52E-02 | 0.01 | 0.34 | 5.09 |
| | 600-1,200 | 4.49E-01 | 2.02E-01 | 6.07E+03 | 3.69E+07 | | | | |
| | All depths | 4.49E-01 | 2.02E-01 | 6.07E+03 | 3.69E+07 | 2.52E-02 | 1.04E-02 | 3.40E-01 | 5.09E+00 |
| *Bathyagonus nigripinnis* | 200-600 | 2.07E+01 | 7.71E+00 | 1.44E+06 | 3.36E+10 | 1.13E-02 | 3.41E-04 | 7.87E-01 | 1.55E+00 |
| | 600-1,200 | 2.72E+01 | 1.90E+01 | 2.30E+06 | 1.12E+11 | 1.97E-02 | 1.08E-03 | 1.67E+00 | 6.96E+00 |
| | All depths | 4.79E+01 | 2.67E+01 | 3.74E+06 | 1.46E+11 | 1.48E-02 | 6.59E-04 | 1.15E+00 | 3.94E+00 |
| *Bathylagus milleri* | 200-600 | | | | | | | | |
| | 600-1,200 | 9.57E+00 | 1.41E+01 | 2.37E+05 | 7.98E+09 | 6.60E-03 | 4.53E-04 | 1.64E-01 | 2.49E-01 |
| | All depths | 9.57E+00 | 1.41E+01 | 2.37E+05 | 7.98E+09 | 2.73E-03 | 1.96E-04 | 6.76E-02 | 1.08E-01 |
| *Bathylagus ochotensis* | 200-600 | 8.96E-02 | 8.04E-03 | 4.48E+03 | 2.01E+07 | 5.53E-05 | 3.39E-07 | 2.76E-03 | 8.48E-04 |
| | 600-1,200 | 4.73E-01 | 6.05E-02 | 2.27E+04 | 1.07E+08 | 3.31E-04 | 2.03E-06 | 1.62E-02 | 3.91E-03 |
| | All depths | 5.62E-01 | 6.86E-02 | 2.71E+04 | 1.27E+08 | 1.69E-04 | 1.05E-06 | 8.29E-03 | 2.14E-03 |
| *Bathylagus pacificus* | 200-600 | | | | | | | | |
| | 600-1,200 | 2.22E+01 | 2.52E+01 | 9.19E+05 | 3.19E+10 | 1.50E-02 | 1.11E-03 | 6.24E-01 | 1.58E+00 |
| | All depths | 2.22E+01 | 2.52E+01 | 9.19E+05 | 3.19E+10 | 6.21E-03 | 5.09E-04 | 2.58E-01 | 7.44E-01 |
| *Bathylagus* species | 200-600 | 1.62E+00 | 1.67E+00 | 3.13E+04 | 5.60E+08 | 8.25E-04 | 4.91E-05 | 1.60E-02 | 1.66E-02 |
| | 600-1,200 | 9.87E+01 | 1.56E+02 | 3.10E+06 | 1.11E+11 | 6.70E-02 | 2.26E-02 | 2.11E+00 | 1.90E+01 |
| | All depths | 1.00E+02 | 1.58E+02 | 3.14E+06 | 1.12E+11 | 2.81E-02 | 1.04E-02 | 8.81E-01 | 8.87E+00 |
| *Bathymaster signatus* | 200-600 | 9.34E+01 | 4.86E+03 | 4.60E+05 | 1.32E+11 | 4.91E-02 | 1.45E-01 | 2.40E-01 | 3.89E+00 |
| | 600-1,200 | | | | | | | | |
| | All depths | 9.34E+01 | 4.86E+03 | 4.60E+05 | 1.32E+11 | 2.88E-02 | 8.53E-02 | 1.41E-01 | 2.29E+00 |
| *Bathyphelia australis* | 200-600 | 2.01E-01 | 4.05E-02 | | | | | | |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.01E-01 | 4.05E-02 | | | | | | |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Bathyplotes* species | 200-600 | 2.20E+02 | 6.04E+03 | 4.24E+06 | 1.78E+12 | 8.39E-02 | 7.66E-02 | 2.18E+00 | 5.23E+01 |
| | 600-1,200 | 1.66E+03 | 3.76E+05 | 5.30E+07 | 4.06E+14 | 1.13E+00 | 1.31E+01 | 3.59E+01 | 1.38E+04 |
| | All depths | 1.88E+03 | 3.82E+05 | 5.72E+07 | 4.08E+14 | 5.19E-01 | 5.71E+00 | 1.62E+01 | 6.00E+03 |
| *Bathyraja abyssicola* | 200-600 | | | | | | | | |
| | 600-1,200 | 8.99E+01 | 8.09E+03 | 7.93E+03 | 6.28E+07 | 6.83E-02 | 3.64E-01 | 6.02E-03 | 2.82E-03 |
| | All depths | 8.99E+01 | 8.09E+03 | 7.93E+03 | 6.28E+07 | 2.82E-02 | 1.50E-01 | 2.48E-03 | 1.17E-03 |
| *Bathyraja abyssicola* egg case | 200-600 | | | | | | | | |
| | 600-1,200 | 5.38E-01 | 2.01E-01 | 1.93E+04 | 2.18E+08 | 3.76E-04 | 7.68E-06 | 1.34E-02 | 8.25E-03 |
| | All depths | 5.38E-01 | 2.01E-01 | 1.93E+04 | 2.18E+08 | 1.55E-04 | 3.18E-06 | 5.54E-03 | 3.42E-03 |
| *Bathyraja aleutica* | 200-600 | 1.92E+04 | 7.44E+06 | 3.49E+06 | 2.61E+11 | 1.02E+01 | 2.24E+02 | 1.90E+00 | 8.98E+00 |
| | 600-1,200 | 3.15E+03 | 1.76E+05 | 2.71E+06 | 1.17E+11 | 2.33E+00 | 1.19E+01 | 1.99E+00 | 6.58E+00 |
| | All depths | 2.24E+04 | 7.61E+06 | 6.21E+06 | 3.79E+11 | 6.97E+00 | 1.51E+02 | 1.94E+00 | 7.95E+00 |
| *Bathyraja aleutica* egg case | 200-600 | 7.09E+01 | 4.06E+03 | 4.54E+05 | 1.13E+11 | 3.37E-02 | 1.01E-01 | 2.18E-01 | 2.82E+00 |
| | 600-1,200 | 6.01E+00 | 8.51E+00 | 9.51E+04 | 3.28E+09 | 4.61E-03 | 3.70E-04 | 7.05E-02 | 1.31E-01 |
| | All depths | 7.69E+01 | 4.07E+03 | 5.49E+05 | 1.16E+11 | 2.17E-02 | 5.93E-02 | 1.57E-01 | 1.71E+00 |
| *Bathyraja interrupta* | 200-600 | 3.33E+03 | 2.87E+05 | 2.74E+06 | 2.16E+11 | 1.80E+00 | 9.44E+00 | 1.48E+00 | 7.54E+00 |
| | 600-1,200 | 1.09E+02 | 1.65E+03 | 6.69E+04 | 4.43E+08 | 7.95E-02 | 9.67E-02 | 4.87E-02 | 2.87E-02 |
| | All depths | 3.44E+03 | 2.88E+05 | 2.80E+06 | 2.16E+11 | 1.09E+00 | 6.29E+00 | 8.88E-01 | 4.92E+00 |
| *Bathyraja interrupta* egg case | 200-600 | 1.12E+01 | 1.32E+01 | 4.91E+05 | 2.25E+10 | 6.01E-03 | 4.74E-04 | 2.61E-01 | 7.84E-01 |
| | 600-1,200 | 5.26E-01 | 1.21E-01 | 2.81E+04 | 1.71E+08 | 3.76E-04 | 4.61E-06 | 2.06E-02 | 6.74E-03 |
| | All depths | 1.18E+01 | 1.33E+01 | 5.19E+05 | 2.27E+10 | 3.68E-03 | 2.87E-04 | 1.62E-01 | 4.76E-01 |
| *Bathyraja lindbergi* | 200-600 | 1.08E+03 | 4.14E+04 | 3.08E+05 | 2.75E+09 | 6.05E-01 | 1.99E+00 | 1.74E-01 | 1.57E-01 |
| | 600-1,200 | 3.34E+03 | 2.84E+05 | 2.70E+06 | 1.13E+12 | 2.54E+00 | 2.08E+01 | 2.03E+00 | 4.49E+01 |
| | All depths | 4.42E+03 | 3.25E+05 | 3.01E+06 | 1.13E+12 | 1.40E+00 | 1.06E+01 | 9.41E-01 | 1.93E+01 |
| *Bathyraja maculata* | 200-600 | 4.61E+03 | 1.22E+06 | 1.22E+06 | 1.13E+11 | 2.47E+00 | 4.30E+01 | 6.74E-01 | 4.31E+00 |
| | 600-1,200 | 1.15E+03 | 4.59E+04 | 5.62E+05 | 4.03E+10 | 7.49E-01 | 1.43E+01 | 3.67E-01 | 4.12E+00 |
| | All depths | 5.75E+03 | 1.27E+06 | 1.79E+06 | 1.53E+11 | 1.76E+00 | 3.17E+01 | 5.47E-01 | 4.23E+00 |
| *Bathyraja maculata* egg case | 200-600 | 4.49E-01 | 1.04E-01 | 9.13E+03 | 4.17E+07 | 2.41E-04 | 3.34E-06 | 4.87E-03 | 1.31E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.49E-01 | 1.04E-01 | 9.13E+03 | 4.17E+07 | 1.42E-04 | 1.97E-06 | 2.86E-03 | 7.73E-04 |
| *Bathyraja minispinosa* | 200-600 | 9.90E+02 | 3.58E+04 | 4.50E+05 | 5.95E+09 | 5.47E-01 | 1.34E+00 | 2.54E-01 | 2.76E-01 |
| | 600-1,200 | 3.46E+02 | 3.83E+03 | 4.17E+05 | 3.48E+09 | 2.50E-01 | 2.31E-01 | 3.05E-01 | 1.81E-01 |
| | All depths | 1.34E+03 | 3.96E+04 | 8.67E+05 | 9.44E+09 | 4.25E-01 | 9.01E-01 | 2.75E-01 | 2.36E-01 |
| *Bathyraja minispinosa* egg case | 200-600 | 2.78E+00 | 1.56E+00 | 1.72E+05 | 6.65E+09 | 1.52E-03 | 5.21E-05 | 9.48E-02 | 2.34E-01 |
| | 600-1,200 | 1.72E+00 | 6.37E-01 | 1.38E+05 | 4.13E+09 | 1.21E-03 | 2.39E-05 | 9.64E-02 | 1.50E-01 |
| | All depths | 4.51E+00 | 2.19E+00 | 3.10E+05 | 1.08E+10 | 1.39E-03 | 4.03E-05 | 9.55E-02 | 1.98E-01 |
| *Bathyraja parmifera* | 200-600 | 1.91E+04 | 2.72E+07 | 3.62E+06 | 1.12E+12 | 1.07E+01 | 1.16E+03 | 2.04E+00 | 4.72E+01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.91E+04 | 2.72E+07 | 3.62E+06 | 1.12E+12 | 6.31E+00 | 7.07E+02 | 1.20E+00 | 2.86E+01 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Bathyraja parmifera* egg case | 200-600 | 3.31E+01 | 3.68E+02 | 1.29E+06 | 5.39E+11 | 1.63E-02 | 8.89E-03 | 6.35E-01 | 1.31E+01 |
| | 600-1,200 | 7.11E-02 | 5.05E-03 | 3.95E+03 | 1.56E+07 | 6.33E-05 | 3.13E-07 | 3.52E-03 | 9.65E-04 |
| | All depths | 3.31E+01 | 3.68E+02 | 1.30E+06 | 5.39E+11 | 9.61E-03 | 5.26E-03 | 3.75E-01 | 7.76E+00 |
| *Bathyraja* species egg case | 200-600 | | | | | | | | |
| | 600-1,200 | 1.84E-01 | 3.40E-02 | 6.14E+03 | 3.78E+07 | 1.43E-04 | 1.59E-06 | 4.76E-03 | 1.77E-03 |
| | All depths | 1.84E-01 | 3.40E-02 | 6.14E+03 | 3.78E+07 | 5.89E-05 | 6.57E-07 | 1.96E-03 | 7.29E-04 |
| *Bathyraja taranetzi* | 200-600 | 8.09E+02 | 6.78E+04 | 9.91E+05 | 1.39E+11 | 4.18E-01 | 2.02E+00 | 5.12E-01 | 3.83E+00 |
| | 600-1,200 | 5.66E+01 | 1.81E+03 | 6.06E+04 | 1.66E+09 | 4.02E-02 | 6.57E-02 | 4.36E-02 | 6.35E-02 |
| | All depths | 8.66E+02 | 6.96E+04 | 1.05E+06 | 1.41E+11 | 2.62E-01 | 1.24E+00 | 3.19E-01 | 2.32E+00 |
| *Bathyraja taranetzi* egg case | 200-600 | 3.34E-01 | 2.94E-02 | 3.45E+04 | 3.06E+08 | 1.74E-04 | 9.02E-07 | 1.82E-02 | 9.66E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 3.34E-01 | 2.94E-02 | 3.45E+04 | 3.06E+08 | 1.02E-04 | 5.35E-07 | 1.07E-02 | 5.74E-03 |
| *Bathyraja trachura* | 200-600 | 5.82E+00 | 3.39E+01 | 4.22E+03 | 1.78E+07 | 2.97E-03 | 9.78E-04 | 2.15E-03 | 5.14E-04 |
| | 600-1,200 | 2.29E+03 | 1.14E+05 | 1.28E+06 | 4.90E+10 | 1.61E+00 | 5.16E+00 | 9.13E-01 | 2.54E+00 |
| | All depths | 2.30E+03 | 1.14E+05 | 1.28E+06 | 4.90E+10 | 6.66E-01 | 2.74E+00 | 3.78E-01 | 1.24E+00 |
| *Bathyraja trachura* egg case | 200-600 | 2.91E-01 | 5.83E-02 | 1.53E+04 | 1.21E+08 | 1.68E-04 | 1.84E-06 | 9.92E-03 | 5.44E-03 |
| | 600-1,200 | 8.58E+00 | 6.73E+00 | 6.42E+05 | 3.64E+10 | 5.99E-03 | 2.55E-04 | 4.49E-01 | 1.35E+00 |
| | All depths | 8.88E+00 | 6.79E+00 | 6.58E+05 | 3.66E+10 | 2.57E-03 | 1.14E-04 | 1.91E-01 | 6.01E-01 |
| *Benthalbella dentata* | 200-600 | | | | | | | | |
| | 600-1,200 | 2.79E-01 | 7.80E-02 | 5.17E+03 | 2.67E+07 | 1.94E-04 | 2.94E-06 | 3.60E-03 | 1.01E-03 |
| | All depths | 2.79E-01 | 7.80E-02 | 5.17E+03 | 2.67E+07 | 8.02E-05 | 1.22E-06 | 1.48E-03 | 4.17E-04 |
| *Bentheogennema borealis* | 200-600 | | | | | | | | |
| | 600-1,200 | 2.60E-02 | 6.77E-04 | 6.51E+03 | 4.23E+07 | 1.41E-05 | 1.56E-08 | 3.54E-03 | 9.75E-04 |
| | All depths | 2.60E-02 | 6.77E-04 | 6.51E+03 | 4.23E+07 | 5.84E-06 | 6.44E-09 | 1.46E-03 | 4.03E-04 |
| *Benthoctopus leioderma* | 200-600 | 6.18E+01 | 1.50E+03 | 1.48E+05 | 7.62E+09 | 3.11E-02 | 4.12E-02 | 7.46E-02 | 2.09E-01 |
| | 600-1,200 | 8.44E+01 | 7.07E+02 | 2.34E+05 | 2.38E+09 | 6.06E-02 | 2.85E-02 | 1.68E-01 | 8.91E-02 |
| | All depths | 1.46E+02 | 2.20E+03 | 3.81E+05 | 1.00E+10 | 4.33E-02 | 3.60E-02 | 1.13E-01 | 1.61E-01 |
| *Beringius frielei* | 200-600 | 5.54E+01 | 9.19E+01 | 4.92E+05 | 6.65E+09 | 2.75E-02 | 3.38E-03 | 2.46E-01 | 2.54E-01 |
| | 600-1,200 | 3.85E+00 | 1.31E+00 | 5.68E+04 | 2.47E+08 | 2.79E-03 | 6.17E-05 | 4.10E-02 | 1.15E-02 |
| | All depths | 5.92E+01 | 9.32E+01 | 5.49E+05 | 6.90E+09 | 1.73E-02 | 2.15E-03 | 1.61E-01 | 1.63E-01 |
| *Beringius* species | 200-600 | 7.74E-01 | 2.83E-01 | 1.81E+04 | 2.02E+08 | 4.30E-04 | 1.03E-05 | 1.01E-02 | 7.14E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 7.74E-01 | 2.83E-01 | 1.81E+04 | 2.02E+08 | 2.52E-04 | 6.05E-06 | 5.92E-03 | 4.20E-03 |
| *Berryteuthis magister* | 200-600 | 1.18E+03 | 1.35E+04 | 3.72E+06 | 2.37E+11 | 6.21E-01 | 5.47E-01 | 1.97E+00 | 8.09E+00 |
| | 600-1,200 | 1.06E+02 | 5.01E+02 | 3.05E+05 | 3.91E+09 | 7.59E-02 | 3.44E-02 | 2.17E-01 | 2.72E-01 |
| | All depths | 1.28E+03 | 1.40E+04 | 4.03E+06 | 2.41E+11 | 3.96E-01 | 4.07E-01 | 1.25E+00 | 5.60E+00 |
| Bivalvia | 200-600 | 2.40E+00 | 1.43E+00 | | | | | | |
| | 600-1,200 | 2.79E-01 | 3.93E-02 | | | | | | |
| | All depths | 2.68E+00 | 1.47E+00 | | | | | | |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| | 200-600 | | | | | | | | |
| *Boreotrophon* species | 600-1,200 | 2.41E-02 | 5.83E-04 | 3.02E+04 | 9.11E+08 | 1.73E-05 | 2.34E-08 | 2.17E-02 | 3.66E-02 |
| | All depths | 2.41E-02 | 5.83E-04 | 3.02E+04 | 9.11E+08 | 7.15E-06 | 9.67E-09 | 8.94E-03 | 1.51E-02 |
| | 200-600 | 1.03E+02 | 1.76E+03 | 5.59E+04 | 5.13E+08 | 6.86E-02 | 1.24E-01 | 3.73E-02 | 3.69E-02 |
| *Bothrocara brunneum* | 600-1,200 | 6.61E+02 | 1.56E+04 | 7.70E+05 | 2.83E+10 | 4.55E-01 | 7.45E-01 | 5.20E-01 | 1.41E+00 |
| | All depths | 7.64E+02 | 1.74E+04 | 8.26E+05 | 2.88E+10 | 2.28E-01 | 4.14E-01 | 2.36E-01 | 6.56E-01 |
| | 200-600 | | | | | | | | |
| *Bothrocara nyx* | 600-1,200 | 4.42E+00 | 5.96E+00 | 5.17E+05 | 8.39E+10 | 3.13E-03 | 2.37E-04 | 3.61E-01 | 3.24E+00 |
| | All depths | 4.42E+00 | 5.96E+00 | 5.17E+05 | 8.39E+10 | 1.29E-03 | 9.93E-05 | 1.49E-01 | 1.36E+00 |
| | 200-600 | 1.25E-01 | 1.56E-02 | 9.61E+03 | 9.24E+07 | 6.94E-05 | 5.35E-07 | 5.34E-03 | 3.16E-03 |
| *Bothrocara pusillum* | 600-1,200 | 6.03E-02 | 2.15E-03 | 1.29E+04 | 9.26E+07 | 4.26E-05 | 8.14E-08 | 9.16E-03 | 3.53E-03 |
| | All depths | 1.85E-01 | 1.78E-02 | 2.25E+04 | 1.85E+08 | 5.83E-05 | 3.46E-07 | 6.91E-03 | 3.30E-03 |
| | 200-600 | 1.67E-02 | 2.78E-04 | 4.17E+03 | 1.74E+07 | 8.50E-06 | 8.02E-09 | 2.12E-03 | 5.01E-04 |
| *Bothrocara* species | 600-1,200 | 2.34E-01 | 4.01E-02 | 7.48E+04 | 4.39E+09 | 1.67E-04 | 1.60E-06 | 5.36E-02 | 1.76E-01 |
| | All depths | 2.50E-01 | 4.03E-02 | 7.90E+04 | 4.40E+09 | 7.40E-05 | 6.67E-07 | 2.34E-02 | 7.28E-02 |
| | 200-600 | 5.55E+03 | 2.68E+06 | 5.81E+06 | 3.08E+12 | 2.83E+00 | 1.04E+02 | 2.97E+00 | 1.17E+02 |
| *Bothrocara zestum* | 600-1,200 | 9.14E+03 | 2.50E+07 | 1.46E+07 | 3.58E+13 | 6.70E+00 | 1.23E+03 | 1.06E+01 | 1.88E+03 |
| | All depths | 1.47E+04 | 2.77E+07 | 2.04E+07 | 3.88E+13 | 4.43E+00 | 5.70E+02 | 6.13E+00 | 8.52E+02 |
| | 200-600 | 1.94E+00 | 1.65E+00 | 8.89E+05 | 5.62E+11 | 9.46E-04 | 4.20E-05 | 4.49E-01 | 1.61E+01 |
| Brachiopoda | 600-1,200 | | | | | | | | |
| | All depths | 1.94E+00 | 1.65E+00 | 8.89E+05 | 5.62E+11 | 5.55E-04 | 2.48E-05 | 2.64E-01 | 9.48E+00 |
| | 200-600 | 5.41E+02 | 8.47E+04 | 2.30E+07 | 1.54E+14 | 1.53E-01 | 5.53E-01 | 1.24E+01 | 4.79E+03 |
| *Brisaster latifrons* | 600-1,200 | 9.25E+01 | 7.43E+03 | 5.62E+06 | 2.29E+13 | 7.69E-02 | 4.07E-01 | 4.65E+00 | 1.25E+03 |
| | All depths | 6.33E+02 | 9.21E+04 | 2.86E+07 | 1.77E+14 | 1.21E-01 | 4.91E-01 | 9.17E+00 | 3.32E+03 |
| | 200-600 | 4.72E+00 | 7.85E+00 | 7.43E+04 | 3.71E+09 | 1.56E-03 | 2.05E-04 | 3.53E-02 | 1.01E-01 |
| Brisingidae | 600-1,200 | 3.18E+01 | 9.63E+02 | 8.99E+03 | 4.10E+07 | 3.63E-04 | 4.93E-06 | 7.25E-03 | 1.97E-03 |
| | All depths | 3.65E+01 | 9.71E+02 | 8.33E+04 | 3.75E+09 | 1.07E-03 | 1.23E-04 | 2.38E-02 | 6.03E-02 |
| | 200-600 | 3.50E-01 | 6.12E-02 | | | | | | |
| Bryozoa | 600-1,200 | 3.32E-01 | 1.11E-01 | | | | | | |
| | All depths | 6.82E-01 | 1.72E-01 | | | | | | |
| | 200-600 | 4.60E-01 | 1.09E-01 | 2.22E+04 | 2.49E+08 | 2.62E-04 | 3.93E-06 | 1.26E-02 | 8.78E-03 |
| *Buccinum costatum* | 600-1,200 | 5.15E+00 | 2.83E+00 | 1.69E+05 | 2.45E+09 | 3.27E-03 | 1.08E-04 | 1.10E-01 | 1.13E-01 |
| | All depths | 5.61E+00 | 2.94E+00 | 1.91E+05 | 2.70E+09 | 1.50E-03 | 4.88E-05 | 5.27E-02 | 5.37E-02 |
| | 200-600 | 4.36E+01 | 6.60E+01 | 1.28E+06 | 4.43E+10 | 2.35E-02 | 2.44E-03 | 6.73E-01 | 1.74E+00 |
| *Buccinum oedematum* | 600-1,200 | 1.19E+02 | 1.05E+03 | 3.78E+06 | 8.45E+11 | 8.76E-02 | 4.23E-02 | 2.74E+00 | 2.92E+01 |
| | All depths | 1.62E+02 | 1.11E+03 | 5.05E+06 | 8.90E+11 | 5.00E-02 | 1.97E-02 | 1.53E+00 | 1.40E+01 |
| | 200-600 | 2.02E-01 | 2.27E-02 | 1.38E+04 | 1.04E+08 | 1.06E-04 | 6.77E-07 | 7.25E-03 | 3.11E-03 |
| *Buccinum* species | 600-1,200 | 6.70E+00 | 9.19E+00 | 2.25E+05 | 1.07E+10 | 4.41E-03 | 2.61E-04 | 1.48E-01 | 3.13E-01 |
| | All depths | 6.90E+00 | 9.22E+00 | 2.39E+05 | 1.08E+10 | 1.88E-03 | 1.12E-04 | 6.55E-02 | 1.35E-01 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Bulbus fragilis* | 200-600 | 4.73E-01 | 9.33E-02 | 5.43E+04 | 1.23E+09 | 2.23E-04 | 2.38E-06 | 2.56E-02 | 3.13E-02 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.73E-01 | 9.33E-02 | 5.43E+04 | 1.23E+09 | 1.31E-04 | 1.40E-06 | 1.50E-02 | 1.85E-02 |
| *Careproctus colletti* | 200-600 | 9.68E+01 | 1.31E+03 | 3.02E+05 | 1.35E+10 | 6.07E-02 | 6.73E-02 | 1.89E-01 | 6.83E-01 |
| | 600-1,200 | 3.37E+01 | 8.37E+01 | 2.27E+05 | 5.96E+09 | 2.49E-02 | 4.48E-03 | 1.69E-01 | 3.07E-01 |
| | All depths | 1.30E+02 | 1.40E+03 | 5.29E+05 | 1.95E+10 | 4.59E-02 | 4.15E-02 | 1.80E-01 | 5.25E-01 |
| *Careproctus cypselurus* | 200-600 | | | | | | | | |
| | 600-1,200 | 3.59E+01 | 6.86E+01 | 5.63E+05 | 1.58E+10 | 2.54E-02 | 3.56E-03 | 3.89E-01 | 8.28E-01 |
| | All depths | 3.59E+01 | 6.86E+01 | 5.63E+05 | 1.58E+10 | 1.05E-02 | 1.61E-03 | 1.61E-01 | 3.76E-01 |
| *Careproctus furcellus* | 200-600 | 4.70E+02 | 1.52E+04 | 4.41E+05 | 9.47E+09 | 2.57E-01 | 5.53E-01 | 2.46E-01 | 3.80E-01 |
| | 600-1,200 | 7.82E+01 | 3.80E+02 | 6.18E+05 | 2.98E+10 | 5.52E-02 | 1.46E-02 | 4.46E-01 | 1.23E+00 |
| | All depths | 5.48E+02 | 1.56E+04 | 1.06E+06 | 3.93E+10 | 1.74E-01 | 3.40E-01 | 3.28E-01 | 7.34E-01 |
| *Careproctus lycopersicus* | 200-600 | | | | | | | | |
| | 600-1,200 | 4.26E-01 | 1.42E-01 | 1.34E+04 | 9.02E+07 | 2.45E-04 | 3.72E-06 | 7.55E-03 | 2.21E-03 |
| | All depths | 4.26E-01 | 1.42E-01 | 1.34E+04 | 9.02E+07 | 1.01E-04 | 1.54E-06 | 3.12E-03 | 9.17E-04 |
| *Careproctus melanurus* | 200-600 | 1.71E+02 | 3.16E+03 | 2.56E+05 | 7.33E+09 | 1.02E-01 | 1.34E-01 | 1.59E-01 | 3.52E-01 |
| | 600-1,200 | 2.58E+02 | 2.83E+03 | 7.52E+05 | 2.01E+10 | 1.86E-01 | 1.07E-01 | 5.47E-01 | 8.71E-01 |
| | All depths | 4.29E+02 | 5.99E+03 | 1.01E+06 | 2.75E+10 | 1.37E-01 | 1.24E-01 | 3.19E-01 | 5.99E-01 |
| *Careproctus phasma* | 200-600 | 1.20E-01 | 1.44E-02 | 4.61E+03 | 2.12E+07 | 6.65E-05 | 4.91E-07 | 2.56E-03 | 7.27E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.20E-01 | 1.44E-02 | 4.61E+03 | 2.12E+07 | 3.91E-05 | 2.89E-07 | 1.50E-03 | 4.27E-04 |
| *Careproctus rastrinus* | 200-600 | 3.78E+02 | 1.03E+04 | 1.35E+06 | 1.05E+11 | 1.98E-01 | 3.74E-01 | 7.13E-01 | 4.38E+00 |
| | 600-1,200 | | | | | | | | |
| | All depths | 3.78E+02 | 1.03E+04 | 1.35E+06 | 1.05E+11 | 1.16E-01 | 2.28E-01 | 4.19E-01 | 2.68E+00 |
| *Careproctus* species | 200-600 | | | | | | | | |
| | 600-1,200 | 8.74E-01 | 3.91E-01 | 1.75E+04 | 1.56E+08 | 6.40E-04 | 1.66E-05 | 1.28E-02 | 6.63E-03 |
| | All depths | 8.74E-01 | 3.91E-01 | 1.75E+04 | 1.56E+08 | 2.64E-04 | 6.88E-06 | 5.28E-03 | 2.75E-03 |
| *Ceramaster japonicus* | 200-600 | 1.75E+03 | 8.66E+04 | 1.90E+07 | 1.03E+13 | 8.85E-01 | 4.03E+00 | 9.65E+00 | 4.99E+02 |
| | 600-1,200 | 2.40E+02 | 3.90E+03 | 3.74E+06 | 9.28E+11 | 1.75E-01 | 2.85E-01 | 2.73E+00 | 7.11E+01 |
| | All depths | 1.99E+03 | 9.05E+04 | 2.28E+07 | 1.12E+13 | 5.92E-01 | 2.60E+00 | 6.79E+00 | 3.33E+02 |
| *Ceramaster* species | 200-600 | 9.39E+02 | 3.30E+04 | 9.48E+06 | 5.64E+12 | 5.50E-01 | 1.35E+00 | 5.48E+00 | 2.07E+02 |
| | 600-1,200 | 1.42E+02 | 4.53E+03 | 1.33E+06 | 2.50E+11 | 1.07E-01 | 1.77E-01 | 1.00E+00 | 1.02E+01 |
| | All depths | 1.08E+03 | 3.76E+04 | 1.08E+07 | 5.89E+12 | 3.67E-01 | 9.13E-01 | 3.63E+00 | 1.30E+02 |
| *Chaetopterus* species | 200-600 | | | | | | | | |
| | 600-1,200 | 1.75E-02 | 3.05E-04 | 4.37E+03 | 1.91E+07 | 1.23E-05 | 1.18E-08 | 3.07E-03 | 7.37E-04 |
| | All depths | 1.75E-02 | 3.05E-04 | 4.37E+03 | 1.91E+07 | 5.08E-06 | 4.87E-09 | 1.27E-03 | 3.04E-04 |
| *Chauliodus macouni* | 200-600 | 1.96E-02 | 3.85E-04 | 4.91E+03 | 2.41E+07 | 1.00E-05 | 1.11E-08 | 2.50E-03 | 6.95E-04 |
| | 600-1,200 | 9.63E+00 | 1.97E+00 | 3.08E+05 | 1.78E+09 | 6.72E-03 | 1.14E-04 | 2.19E-01 | 1.12E-01 |
| | All depths | 9.65E+00 | 1.97E+00 | 3.13E+05 | 1.81E+09 | 2.78E-03 | 5.78E-05 | 9.20E-02 | 5.77E-02 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Chionoecetes angulatus* | 200-600 | 5.55E+01 | 7.42E+02 | 5.31E+05 | 4.24E+10 | 3.15E-02 | 2.96E-02 | 2.95E-01 | 1.68E+00 |
| | 600-1,200 | 4.90E+03 | 6.71E+05 | 7.40E+07 | 6.04E+14 | 3.59E+00 | 4.03E+01 | 5.50E+01 | 3.32E+04 |
| | All depths | 4.95E+03 | 6.71E+05 | 7.45E+07 | 6.04E+14 | 1.50E+00 | 1.96E+01 | 2.29E+01 | 1.43E+04 |
| *Chionoecetes bairdi* | 200-600 | 6.13E+02 | 2.36E+04 | 3.56E+06 | 8.04E+11 | 2.99E-01 | 7.94E-01 | 1.77E+00 | 2.55E+01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 6.13E+02 | 2.36E+04 | 3.56E+06 | 8.04E+11 | 1.75E-01 | 4.86E-01 | 1.04E+00 | 1.57E+01 |
| *Chionoecetes opilio* | 200-600 | 7.59E+02 | 4.51E+05 | 1.47E+06 | 9.06E+11 | 4.17E-01 | 1.54E+01 | 8.28E-01 | 3.17E+01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 7.59E+02 | 4.51E+05 | 1.47E+06 | 9.06E+11 | 2.45E-01 | 9.06E+00 | 4.86E-01 | 1.87E+01 |
| *Chionoecetes tanneri* | 200-600 | 4.21E+02 | 1.68E+04 | 1.09E+06 | 1.05E+11 | 2.48E-01 | 6.76E-01 | 6.25E-01 | 4.11E+00 |
| | 600-1,200 | 9.36E+02 | 3.63E+04 | 4.87E+06 | 1.73E+12 | 7.08E-01 | 2.07E+00 | 3.59E+00 | 7.12E+01 |
| | All depths | 1.36E+03 | 5.31E+04 | 5.96E+06 | 1.83E+12 | 4.38E-01 | 1.30E+00 | 1.85E+00 | 3.37E+01 |
| *Chiroteuthis calyx* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.58E+00 | 2.50E+00 | 4.01E+03 | 1.61E+07 | 1.16E-03 | 1.06E-04 | 2.95E-03 | 6.81E-04 |
| | All depths | 1.58E+00 | 2.50E+00 | 4.01E+03 | 1.61E+07 | 4.80E-04 | 4.36E-05 | 1.22E-03 | 2.81E-04 |
| *Chlamys* species | 200-600 | | | | | | | | |
| | 600-1,200 | 1.03E-01 | 1.06E-02 | 4.58E+04 | 2.10E+09 | 8.19E-05 | 5.24E-07 | 3.64E-02 | 1.03E-01 |
| | All depths | 1.03E-01 | 1.06E-02 | 4.58E+04 | 2.10E+09 | 3.38E-05 | 2.16E-07 | 1.50E-02 | 4.27E-02 |
| *Chrysaora melanaster* | 200-600 | 1.59E+02 | 2.58E+03 | 2.53E+05 | 6.09E+09 | 8.56E-02 | 9.25E-02 | 1.36E-01 | 2.10E-01 |
| | 600-1,200 | 3.30E+02 | 4.32E+04 | 4.19E+05 | 4.23E+10 | 2.01E-01 | 1.01E+00 | 2.74E-01 | 1.10E+00 |
| | All depths | 4.89E+02 | 4.58E+04 | 6.72E+05 | 4.84E+10 | 1.33E-01 | 4.72E-01 | 1.93E-01 | 5.78E-01 |
| *Colus* species | 200-600 | 5.17E-02 | 1.41E-03 | 1.03E+04 | 5.30E+07 | 2.52E-05 | 3.73E-08 | 5.00E-03 | 1.38E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 5.17E-02 | 1.41E-03 | 1.03E+04 | 5.30E+07 | 1.48E-05 | 2.20E-08 | 2.93E-03 | 8.11E-04 |
| *Coryphaenoides acrolepis* | 200-600 | | | | | | | | |
| | 600-1,200 | 3.57E+03 | 4.09E+05 | 1.88E+07 | 1.31E+13 | 2.45E+00 | 2.28E+01 | 1.27E+01 | 7.00E+02 |
| | All depths | 3.57E+03 | 4.09E+05 | 1.88E+07 | 1.31E+13 | 1.01E+00 | 1.08E+01 | 5.22E+00 | 3.26E+02 |
| *Coryphaenoides cinereus* | 200-600 | 1.40E+03 | 2.33E+05 | 6.59E+06 | 5.59E+12 | 7.99E-01 | 9.76E+00 | 3.79E+00 | 2.43E+02 |
| | 600-1,200 | 5.69E+04 | 3.21E+07 | 3.70E+08 | 1.63E+15 | 4.12E+01 | 1.43E+03 | 2.69E+02 | 6.81E+04 |
| | All depths | 5.83E+04 | 3.23E+07 | 3.77E+08 | 1.63E+15 | 1.75E+01 | 9.91E+02 | 1.13E+02 | 4.52E+04 |
| *Coryphaenoides filifer* | 200-600 | | | | | | | | |
| | 600-1,200 | 4.79E+00 | 2.30E+01 | 3.96E+03 | 1.57E+07 | 3.64E-03 | 1.03E-03 | 3.01E-03 | 7.06E-04 |
| | All depths | 4.79E+00 | 2.30E+01 | 3.96E+03 | 1.57E+07 | 1.50E-03 | 4.26E-04 | 1.24E-03 | 2.91E-04 |
| *Coryphaenoides longifilis* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.70E+01 | 6.36E+01 | 9.95E+04 | 2.08E+09 | 1.19E-02 | 3.57E-03 | 6.93E-02 | 1.19E-01 |
| | All depths | 1.70E+01 | 6.36E+01 | 9.95E+04 | 2.08E+09 | 4.90E-03 | 1.50E-03 | 2.86E-02 | 4.98E-02 |
| *Crangon dalli* | 200-600 | 1.06E-02 | 1.11E-04 | 5.28E+03 | 2.79E+07 | 4.98E-06 | 2.75E-09 | 2.49E-03 | 6.87E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.06E-02 | 1.11E-04 | 5.28E+03 | 2.79E+07 | 2.92E-06 | 1.61E-09 | 1.46E-03 | 4.04E-04 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Crangon septemspinosa* | 200-600 | 1.96E-02 | 3.83E-04 | 9.78E+03 | 9.56E+07 | 9.22E-06 | 9.44E-09 | 4.61E-03 | 2.36E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.96E-02 | 3.83E-04 | 9.78E+03 | 9.56E+07 | 5.42E-06 | 5.54E-09 | 2.71E-03 | 1.39E-03 |
| *Crangon* species | 200-600 | 4.67E-01 | 2.96E-02 | 2.34E+05 | 1.02E+10 | 2.27E-04 | 8.32E-07 | 1.14E-01 | 2.78E-01 |
| | 600-1,200 | 9.14E-03 | 8.35E-05 | 9.14E+03 | 8.35E+07 | 6.35E-06 | 3.14E-09 | 6.35E-03 | 3.14E-03 |
| | All depths | 4.76E-01 | 2.97E-02 | 2.43E+05 | 1.03E+10 | 1.36E-04 | 5.00E-07 | 6.95E-02 | 1.67E-01 |
| Crinoidea | 200-600 | 2.01E+00 | 8.60E-01 | 5.90E+04 | 2.11E+09 | 3.63E-04 | 1.07E-05 | 2.73E-02 | 5.52E-02 |
| | 600-1,200 | 2.21E+01 | 1.88E+02 | 2.30E+06 | 3.54E+12 | 1.62E-03 | 1.91E-04 | 9.53E-01 | 6.63E+01 |
| | All depths | 2.41E+01 | 1.89E+02 | 2.36E+06 | 3.54E+12 | 8.72E-04 | 8.37E-05 | 4.03E-01 | 2.69E+01 |
| *Crossaster borealis* | 200-600 | 7.69E+02 | 1.32E+04 | 5.91E+06 | 4.04E+11 | 4.32E-01 | 5.48E-01 | 3.29E+00 | 1.81E+01 |
| | 600-1,200 | 8.00E+02 | 6.90E+04 | 6.39E+06 | 2.96E+12 | 5.86E-01 | 3.28E+00 | 4.66E+00 | 1.40E+02 |
| | All depths | 1.57E+03 | 8.22E+04 | 1.23E+07 | 3.36E+12 | 4.96E-01 | 1.67E+00 | 3.85E+00 | 6.84E+01 |
| *Crossaster papposus* | 200-600 | 1.89E-01 | 1.88E-02 | 1.74E+04 | 1.76E+08 | 9.20E-05 | 4.82E-07 | 8.69E-03 | 4.93E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.89E-01 | 1.88E-02 | 1.74E+04 | 1.76E+08 | 5.40E-05 | 2.84E-07 | 5.11E-03 | 2.90E-03 |
| *Crossaster* species | 200-600 | 1.36E+00 | 6.19E-01 | 8.17E+04 | 2.10E+09 | 7.50E-04 | 2.15E-05 | 4.54E-02 | 7.47E-02 |
| | 600-1,200 | 2.37E+00 | 3.74E+00 | 2.35E+05 | 4.26E+10 | 1.92E-03 | 2.05E-04 | 1.93E-01 | 2.34E+00 |
| | All depths | 3.73E+00 | 4.36E+00 | 3.17E+05 | 4.47E+10 | 1.23E-03 | 9.67E-05 | 1.06E-01 | 1.01E+00 |
| *Crystallichthys cyclospilus* | 200-600 | 6.76E+00 | 4.56E+01 | 5.28E+03 | 2.79E+07 | 3.19E-03 | 1.13E-03 | 2.49E-03 | 6.87E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 6.76E+00 | 4.56E+01 | 5.28E+03 | 2.79E+07 | 1.87E-03 | 6.61E-04 | 1.46E-03 | 4.04E-04 |
| *Ctenodiscus crispatus* | 200-600 | 7.65E+00 | 4.77E+01 | 5.36E+05 | 2.33E+11 | 4.27E-03 | 1.65E-03 | 2.99E-01 | 8.04E+00 |
| | 600-1,200 | 6.92E-02 | 4.79E-03 | 6.92E+03 | 4.79E+07 | 4.02E-05 | 1.26E-07 | 4.02E-03 | 1.26E-03 |
| | All depths | 7.71E+00 | 4.77E+01 | 5.43E+05 | 2.33E+11 | 2.52E-03 | 9.69E-04 | 1.77E-01 | 4.73E+00 |
| Ctenophora | 200-600 | | | | | | | | |
| | 600-1,200 | 9.73E-02 | 9.47E-03 | 6.08E+03 | 3.70E+07 | 8.67E-05 | 5.86E-07 | 5.42E-03 | 2.29E-03 |
| | All depths | 9.73E-02 | 9.47E-03 | 6.08E+03 | 3.70E+07 | 3.58E-05 | 2.42E-07 | 2.24E-03 | 9.45E-04 |
| *Cyclothone* species | 200-600 | | | | | | | | |
| | 600-1,200 | 8.74E-03 | 7.63E-05 | 4.37E+03 | 1.91E+07 | 6.94E-06 | 3.76E-09 | 3.47E-03 | 9.40E-04 |
| | All depths | 8.74E-03 | 7.63E-05 | 4.37E+03 | 1.91E+07 | 2.87E-06 | 1.55E-09 | 1.43E-03 | 3.88E-04 |
| *Dasycottus setiger* | 200-600 | 2.16E+02 | 2.05E+03 | 1.73E+06 | 1.32E+11 | 1.07E-01 | 7.06E-02 | 8.67E-01 | 4.06E+00 |
| | 600-1,200 | 2.20E+00 | 1.46E+00 | 5.59E+04 | 1.81E+09 | 1.62E-03 | 7.45E-05 | 4.11E-02 | 8.13E-02 |
| | All depths | 2.19E+02 | 2.05E+03 | 1.79E+06 | 1.33E+11 | 6.36E-02 | 4.40E-02 | 5.26E-01 | 2.57E+00 |
| Decapoda | 200-600 | 1.87E-01 | 3.48E-02 | 9.55E+04 | 9.13E+09 | 9.51E-05 | 1.00E-06 | 4.87E-02 | 2.64E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.87E-01 | 3.48E-02 | 9.55E+04 | 9.13E+09 | 5.59E-05 | 5.90E-07 | 2.86E-02 | 1.55E-01 |
| Decapodiformes | 200-600 | 1.14E+00 | 7.89E-01 | 8.53E+03 | 3.47E+07 | 5.82E-04 | 2.33E-05 | 4.35E-03 | 1.04E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.14E+00 | 7.89E-01 | 8.53E+03 | 3.47E+07 | 3.42E-04 | 1.37E-05 | 2.55E-03 | 6.14E-04 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Delectopecten vancouverensis* | 200-600 | | | | | | | | |
| | 600-1,200 | 7.33E-02 | 3.78E-03 | 5.38E+04 | 2.27E+09 | 4.89E-05 | 1.39E-07 | 3.64E-02 | 8.45E-02 |
| | All depths | 7.33E-02 | 3.78E-03 | 5.38E+04 | 2.27E+09 | 2.02E-05 | 5.75E-08 | 1.50E-02 | 3.49E-02 |
| *Diaphus theta* | 200-600 | 1.99E-01 | 1.30E-02 | 1.42E+04 | 6.66E+07 | 9.85E-05 | 3.55E-07 | 7.04E-03 | 1.81E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.99E-01 | 1.30E-02 | 1.42E+04 | 6.66E+07 | 5.79E-05 | 2.10E-07 | 4.13E-03 | 1.07E-03 |
| *Diplopteraster multipes* | 200-600 | 1.46E+02 | 1.16E+03 | 5.45E+05 | 1.34E+10 | 7.54E-02 | 3.48E-02 | 2.81E-01 | 4.07E-01 |
| | 600-1,200 | 1.29E+00 | 3.54E-01 | 1.41E+04 | 4.14E+07 | 9.49E-04 | 2.45E-05 | 1.07E-02 | 2.91E-03 |
| | All depths | 1.47E+02 | 1.16E+03 | 5.59E+05 | 1.35E+10 | 4.47E-02 | 2.17E-02 | 1.69E-01 | 2.57E-01 |
| *Dipsacaster borealis* | 200-600 | 6.65E+02 | 2.02E+04 | 4.02E+06 | 5.43E+11 | 3.52E-01 | 6.33E-01 | 2.08E+00 | 1.87E+01 |
| | 600-1,200 | 8.22E+01 | 5.33E+03 | 8.08E+05 | 5.23E+11 | 6.02E-02 | 2.27E-01 | 5.93E-01 | 2.23E+01 |
| | All depths | 7.47E+02 | 2.55E+04 | 4.82E+06 | 1.07E+12 | 2.31E-01 | 4.84E-01 | 1.47E+00 | 2.06E+01 |
| *Elassochirus cavimanus* | 200-600 | 2.62E+00 | 2.51E+00 | 6.95E+04 | 9.15E+08 | 1.31E-03 | 6.46E-05 | 3.61E-02 | 2.62E-02 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.62E+00 | 2.51E+00 | 6.95E+04 | 9.15E+08 | 7.68E-04 | 3.82E-05 | 2.12E-02 | 1.56E-02 |
| *Elassochirus* species | 200-600 | 5.07E-02 | 2.57E-03 | 5.07E+03 | 2.57E+07 | 2.37E-05 | 6.22E-08 | 2.37E-03 | 6.22E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 5.07E-02 | 2.57E-03 | 5.07E+03 | 2.57E+07 | 1.39E-05 | 3.65E-08 | 1.39E-03 | 3.65E-04 |
| *Elassochirus tenuimanus* | 200-600 | | | | | | | | |
| | 600-1,200 | 5.11E+00 | 2.61E+01 | 3.75E+04 | 1.40E+09 | 3.58E-03 | 9.99E-04 | 2.62E-02 | 5.37E-02 |
| | All depths | 5.11E+00 | 2.61E+01 | 3.75E+04 | 1.40E+09 | 1.48E-03 | 4.12E-04 | 1.08E-02 | 2.22E-02 |
| *Elassodiscus caudatus* | 200-600 | 4.34E+00 | 9.85E+00 | 8.17E+04 | 2.23E+09 | 2.21E-03 | 2.87E-04 | 4.17E-02 | 6.50E-02 |
| | 600-1,200 | 9.73E+01 | 5.39E+02 | 2.56E+06 | 2.86E+11 | 6.82E-02 | 2.57E-02 | 1.78E+00 | 1.18E+01 |
| | All depths | 1.02E+02 | 5.49E+02 | 2.64E+06 | 2.88E+11 | 2.94E-02 | 1.17E-02 | 7.59E-01 | 5.62E+00 |
| *Elassodiscus tremebundus* | 200-600 | 2.10E+00 | 3.32E+00 | 8.67E+03 | 3.79E+07 | 1.26E-03 | 1.39E-04 | 4.84E-03 | 1.29E-03 |
| | 600-1,200 | 1.69E+02 | 6.34E+02 | 1.04E+06 | 4.13E+10 | 1.20E-01 | 5.04E-02 | 7.41E-01 | 2.21E+00 |
| | All depths | 1.71E+02 | 6.38E+02 | 1.05E+06 | 4.13E+10 | 5.01E-02 | 2.41E-02 | 3.09E-01 | 1.04E+00 |
| *Embassichthys bathybius* | 200-600 | 1.62E+01 | 2.64E+02 | 8.33E+03 | 6.94E+07 | 8.29E-03 | 7.62E-03 | 4.25E-03 | 2.00E-03 |
| | 600-1,200 | 3.81E+02 | 1.09E+04 | 3.66E+05 | 9.88E+09 | 2.92E-01 | 5.12E-01 | 2.77E-01 | 4.39E-01 |
| | All depths | 3.97E+02 | 1.12E+04 | 3.75E+05 | 9.94E+09 | 1.25E-01 | 2.34E-01 | 1.17E-01 | 1.99E-01 |
| *Eualus biunguis* | 200-600 | 8.96E-03 | 8.04E-05 | 4.48E+03 | 2.01E+07 | 5.53E-06 | 3.39E-09 | 2.76E-03 | 8.48E-04 |
| | 600-1,200 | 6.07E-01 | 6.76E-02 | 2.56E+05 | 1.10E+10 | 3.72E-04 | 2.85E-06 | 1.59E-01 | 4.90E-01 |
| | All depths | 6.16E-01 | 6.76E-02 | 2.61E+05 | 1.10E+10 | 1.57E-04 | 1.20E-06 | 6.73E-02 | 2.07E-01 |
| *Eualus* species | 200-600 | 1.75E-02 | 1.47E-04 | 8.77E+03 | 3.67E+07 | 8.94E-06 | 4.40E-09 | 4.47E-03 | 1.10E-03 |
| | 600-1,200 | 3.56E+01 | 2.20E+02 | 1.77E+07 | 5.39E+13 | 2.44E-02 | 8.71E-03 | 1.21E+01 | 2.07E+03 |
| | All depths | 3.56E+01 | 2.20E+02 | 1.77E+07 | 5.39E+13 | 1.01E-02 | 3.71E-03 | 4.98E+00 | 8.82E+02 |
| *Eunoe depressa* | 200-600 | 3.46E-02 | 1.20E-03 | 4.33E+03 | 1.87E+07 | 1.92E-05 | 4.10E-08 | 2.40E-03 | 6.41E-04 |
| | 600-1,200 | 1.36E-02 | 1.84E-04 | 6.78E+03 | 4.59E+07 | 8.82E-06 | 6.06E-09 | 4.41E-03 | 1.52E-03 |
| | All depths | 4.82E-02 | 1.38E-03 | 1.11E+04 | 6.47E+07 | 1.49E-05 | 2.65E-08 | 3.23E-03 | 9.97E-04 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| Euphausiacea | 200-600 | 6.32E-02 | 4.00E-03 | 9.03E+04 | 8.16E+09 | 3.23E-05 | 1.16E-07 | 4.62E-02 | 2.36E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 6.32E-02 | 4.00E-03 | 9.03E+04 | 8.16E+09 | 1.90E-05 | 6.81E-08 | 2.71E-02 | 1.39E-01 |
| *Euspira pallida* | 200-600 | 5.64E-02 | 3.18E-03 | 4.70E+03 | 2.21E+07 | 3.13E-05 | 1.09E-07 | 2.61E-03 | 7.56E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 5.64E-02 | 3.18E-03 | 4.70E+03 | 2.21E+07 | 1.84E-05 | 6.40E-08 | 1.53E-03 | 4.44E-04 |
| *Flustra serrulata* | 200-600 | 1.88E-01 | 3.55E-02 | | | | | | |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.88E-01 | 3.55E-02 | | | | | | |
| *Fusitriton oregonensis* | 200-600 | 2.92E+02 | 6.15E+03 | 4.91E+06 | 1.93E+12 | 1.46E-01 | 1.79E-01 | 2.43E+00 | 5.42E+01 |
| | 600-1,200 | 1.19E+00 | 6.42E-01 | 1.74E+04 | 1.35E+08 | 8.75E-04 | 3.00E-05 | 1.28E-02 | 6.31E-03 |
| | All depths | 2.93E+02 | 6.15E+03 | 4.93E+06 | 1.93E+12 | 8.61E-02 | 1.10E-01 | 1.43E+00 | 3.31E+01 |
| *Gadus macrocephalus* | 200-600 | 5.50E+03 | 8.12E+05 | 2.18E+06 | 1.31E+11 | 2.85E+00 | 3.64E+01 | 1.12E+00 | 5.74E+00 |
| | 600-1,200 | | | | | | | | |
| | All depths | 5.50E+03 | 8.12E+05 | 2.18E+06 | 1.31E+11 | 1.67E+00 | 2.33E+01 | 6.60E-01 | 3.67E+00 |
| *Galiteuthis phyllura* | 200-600 | 7.68E-01 | 5.90E-01 | 8.73E+03 | 7.62E+07 | 3.92E-04 | 1.70E-05 | 4.45E-03 | 2.20E-03 |
| | 600-1,200 | 2.14E+00 | 1.72E+00 | 1.59E+04 | 9.62E+07 | 1.83E-03 | 9.58E-05 | 1.35E-02 | 5.20E-03 |
| | All depths | 2.90E+00 | 2.31E+00 | 2.47E+04 | 1.72E+08 | 9.83E-04 | 4.97E-05 | 8.18E-03 | 3.44E-03 |
| gastropod eggs | 200-600 | 6.89E+00 | 3.46E+00 | | | | | | |
| | 600-1,200 | 8.59E+01 | 6.12E+03 | | | | | | |
| | All depths | 9.28E+01 | 6.12E+03 | | | | | | |
| Gastropoda | 200-600 | 4.17E+01 | 1.55E+02 | | | | | | |
| | 600-1,200 | 3.98E+00 | 8.01E+00 | | | | | | |
| | All depths | 4.57E+01 | 1.63E+02 | | | | | | |
| *Glyptocephalus zachirus* | 200-600 | 1.33E+04 | 3.17E+06 | 1.78E+07 | 5.14E+12 | 6.79E+00 | 1.04E+02 | 9.19E+00 | 1.65E+02 |
| | 600-1,200 | 5.42E+01 | 1.40E+03 | 5.52E+04 | 1.29E+09 | 3.92E-02 | 5.70E-02 | 3.99E-02 | 5.22E-02 |
| | All depths | 1.34E+04 | 3.17E+06 | 1.78E+07 | 5.14E+12 | 4.00E+00 | 7.21E+01 | 5.41E+00 | 1.17E+02 |
| Gonatidae species | 200-600 | 2.67E-01 | 7.14E-02 | 2.97E+03 | 8.82E+06 | 2.27E-04 | 5.74E-06 | 2.53E-03 | 7.08E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.67E-01 | 7.14E-02 | 2.97E+03 | 8.82E+06 | 1.34E-04 | 3.37E-06 | 1.48E-03 | 4.16E-04 |
| *Gonatopsis borealis* | 200-600 | 7.80E+00 | 2.10E+01 | 8.04E+04 | 2.06E+09 | 3.87E-03 | 5.90E-04 | 4.00E-02 | 5.78E-02 |
| | 600-1,200 | 4.70E+00 | 3.57E+00 | 5.93E+04 | 5.64E+08 | 3.48E-03 | 1.50E-04 | 4.45E-02 | 2.48E-02 |
| | All depths | 1.25E+01 | 2.46E+01 | 1.40E+05 | 2.62E+09 | 3.71E-03 | 4.07E-04 | 4.18E-02 | 4.40E-02 |
| *Gonatus onyx* | 200-600 | 1.20E+00 | 1.44E+00 | 5.00E+03 | 2.50E+07 | 6.12E-04 | 4.16E-05 | 2.55E-03 | 7.23E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.20E+00 | 1.44E+00 | 5.00E+03 | 2.50E+07 | 3.60E-04 | 2.44E-05 | 1.50E-03 | 4.24E-04 |
| *Gonatus* species | 200-600 | 2.19E-01 | 4.81E-02 | 3.92E+03 | 1.53E+07 | 1.27E-04 | 1.80E-06 | 2.28E-03 | 5.75E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.19E-01 | 4.81E-02 | 3.92E+03 | 1.53E+07 | 7.48E-05 | 1.06E-06 | 1.34E-03 | 3.38E-04 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| Gonostomatidae | 200-600 | | | | | | | | |
| | 600-1,200 | 1.12E-01 | 4.88E-03 | 3.31E+04 | 2.39E+08 | 7.90E-05 | 2.01E-07 | 2.33E-02 | 1.09E-02 |
| | All depths | 1.12E-01 | 4.88E-03 | 3.31E+04 | 2.39E+08 | 3.26E-05 | 8.37E-08 | 9.60E-03 | 4.60E-03 |
| *Gorgonocephalus eucnemis* | 200-600 | 1.48E+03 | 1.31E+06 | 5.55E+06 | 1.19E+13 | 7.70E-01 | 4.19E+01 | 2.90E+00 | 4.24E+02 |
| | 600-1,200 | 7.49E+00 | 2.28E+01 | 7.31E+04 | 2.32E+09 | 5.32E-03 | 9.12E-04 | 5.17E-02 | 9.23E-02 |
| | All depths | 1.48E+03 | 1.31E+06 | 5.62E+06 | 1.19E+13 | 4.55E-01 | 2.46E+01 | 1.73E+00 | 2.50E+02 |
| *Graneledone boreopacifica* | 200-600 | | | | | | | | |
| | 600-1,200 | 2.48E+02 | 4.58E+03 | 4.36E+05 | 7.55E+09 | 1.51E-01 | 3.05E-01 | 2.65E-01 | 9.40E-01 |
| | All depths | 2.48E+02 | 4.58E+03 | 4.36E+05 | 7.55E+09 | 6.22E-02 | 1.30E-01 | 1.09E-01 | 4.02E-01 |
| *Halargyreus johnsonii* | 200-600 | | | | | | | | |
| | 600-1,200 | 7.85E+00 | 1.33E+01 | 3.53E+04 | 2.29E+08 | 5.39E-03 | 6.24E-04 | 2.43E-02 | 1.14E-02 |
| | All depths | 7.85E+00 | 1.33E+01 | 3.53E+04 | 2.29E+08 | 2.22E-03 | 2.63E-04 | 1.00E-02 | 4.80E-03 |
| *Hemilepidotus jordani* | 200-600 | 2.75E+01 | 2.61E+02 | 4.80E+04 | 9.67E+08 | 1.44E-02 | 8.05E-03 | 2.58E-02 | 3.28E-02 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.75E+01 | 2.61E+02 | 4.80E+04 | 9.67E+08 | 8.46E-03 | 4.76E-03 | 1.51E-02 | 1.94E-02 |
| *Hemilepidotus papilio* | 200-600 | 4.69E+00 | 2.20E+01 | 4.07E+03 | 1.65E+07 | 2.60E-03 | 7.53E-04 | 2.26E-03 | 5.66E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.69E+00 | 2.20E+01 | 4.07E+03 | 1.65E+07 | 1.53E-03 | 4.42E-04 | 1.33E-03 | 3.32E-04 |
| *Hemitripterus bolini* | 200-600 | 4.14E+03 | 5.41E+05 | 1.23E+06 | 4.85E+10 | 2.23E+00 | 1.87E+01 | 6.66E-01 | 1.81E+00 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.14E+03 | 5.41E+05 | 1.23E+06 | 4.85E+10 | 1.31E+00 | 1.22E+01 | 3.91E-01 | 1.17E+00 |
| *Henricia* species | 200-600 | 2.96E+01 | 1.90E+01 | 1.59E+06 | 2.89E+10 | 1.50E-02 | 6.03E-04 | 7.87E-01 | 1.24E+00 |
| | 600-1,200 | 1.87E+00 | 3.33E-01 | 1.53E+05 | 1.69E+09 | 1.34E-03 | 1.48E-05 | 1.10E-01 | 6.93E-02 |
| | All depths | 3.15E+01 | 1.94E+01 | 1.75E+06 | 3.06E+10 | 9.38E-03 | 4.04E-04 | 5.08E-01 | 8.68E-01 |
| *Heterozonias alternatus* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.36E+01 | 7.52E+01 | 7.98E+04 | 3.22E+09 | 1.12E-02 | 3.78E-03 | 6.49E-02 | 1.60E-01 |
| | All depths | 1.36E+01 | 7.52E+01 | 7.98E+04 | 3.22E+09 | 4.60E-03 | 1.58E-03 | 2.68E-02 | 6.65E-02 |
| *Hippasteria* species | 200-600 | 1.16E+02 | 2.01E+03 | 2.30E+05 | 4.52E+09 | 6.36E-02 | 7.63E-02 | 1.22E-01 | 1.76E-01 |
| | 600-1,200 | 1.69E+01 | 8.91E+01 | 1.27E+05 | 3.32E+09 | 1.34E-02 | 5.17E-03 | 9.88E-02 | 1.96E-01 |
| | All depths | 1.33E+02 | 2.10E+03 | 3.57E+05 | 7.84E+09 | 4.29E-02 | 4.74E-02 | 1.12E-01 | 1.84E-01 |
| *Hippasteria* species B | 200-600 | | | | | | | | |
| | 600-1,200 | 3.50E-01 | 1.23E-01 | 6.03E+03 | 3.64E+07 | 2.51E-04 | 4.93E-06 | 4.33E-03 | 1.46E-03 |
| | All depths | 3.50E-01 | 1.23E-01 | 6.03E+03 | 3.64E+07 | 1.04E-04 | 2.03E-06 | 1.79E-03 | 6.04E-04 |
| *Hippasteria spinosa* | 200-600 | 1.63E+01 | 1.50E+02 | 2.38E+04 | 2.94E+08 | 8.56E-03 | 4.45E-03 | 1.28E-02 | 9.49E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.63E+01 | 1.50E+02 | 2.38E+04 | 2.94E+08 | 5.03E-03 | 2.62E-03 | 7.50E-03 | 5.59E-03 |
| *Hippoglossoides elassodon* | 200-600 | 2.21E+04 | 6.43E+06 | 5.98E+07 | 4.62E+13 | 1.17E+01 | 2.18E+02 | 3.16E+01 | 1.97E+03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.21E+04 | 6.43E+06 | 5.98E+07 | 4.62E+13 | 6.88E+00 | 1.61E+02 | 1.86E+01 | 1.40E+03 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Hippoglossus stenolepis* | 200-600 | 7.31E+03 | 2.51E+06 | 1.10E+06 | 4.96E+10 | 3.93E+00 | 7.97E+01 | 6.00E-01 | 1.75E+00 |
| | 600-1,200 | | | | | | | | |
| | All depths | 7.31E+03 | 2.51E+06 | 1.10E+06 | 4.96E+10 | 2.31E+00 | 5.04E+01 | 3.52E-01 | 1.11E+00 |
| Holothuroidea | 200-600 | 1.35E+00 | 4.52E-01 | 3.93E+04 | 2.29E+08 | 6.73E-04 | 1.25E-05 | 1.93E-02 | 6.38E-03 |
| | 600-1,200 | 1.14E+00 | 2.92E-01 | 3.23E+04 | 2.00E+08 | 8.22E-04 | 1.26E-05 | 2.33E-02 | 9.22E-03 |
| | All depths | 2.49E+00 | 7.44E-01 | 7.15E+04 | 4.29E+08 | 7.35E-04 | 1.25E-05 | 2.10E-02 | 7.51E-03 |
| *Hyas lyratus* | 200-600 | 1.21E+01 | 1.38E+01 | 8.40E+05 | 6.93E+10 | 5.78E-03 | 3.91E-04 | 4.00E-01 | 1.99E+00 |
| | 600-1,200 | 2.55E-02 | 6.48E-04 | 4.24E+03 | 1.80E+07 | 1.87E-05 | 2.74E-08 | 3.12E-03 | 7.61E-04 |
| | All depths | 1.21E+01 | 1.38E+01 | 8.45E+05 | 6.94E+10 | 3.40E-03 | 2.37E-04 | 2.36E-01 | 1.20E+00 |
| *Icelus canaliculatus* | 200-600 | 5.79E+00 | 7.61E+00 | 4.10E+05 | 3.08E+10 | 3.41E-03 | 3.19E-04 | 2.35E-01 | 1.27E+00 |
| | 600-1,200 | 1.47E+01 | 5.61E+01 | 1.19E+06 | 2.63E+11 | 1.15E-02 | 3.23E-03 | 9.31E-01 | 1.61E+01 |
| | All depths | 2.05E+01 | 6.37E+01 | 1.60E+06 | 2.94E+11 | 6.74E-03 | 1.52E-03 | 5.22E-01 | 7.45E+00 |
| *Icelus euryops* | 200-600 | 2.22E+00 | 3.30E+00 | 1.79E+05 | 1.83E+10 | 1.22E-03 | 1.12E-04 | 9.76E-02 | 6.17E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.22E+00 | 3.30E+00 | 1.79E+05 | 1.83E+10 | 7.19E-04 | 6.61E-05 | 5.73E-02 | 3.63E-01 |
| *Icelus spiniger* | 200-600 | 1.74E+01 | 3.45E+01 | 5.42E+05 | 2.40E+10 | 9.17E-03 | 1.27E-03 | 2.84E-01 | 9.02E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.74E+01 | 3.45E+01 | 5.42E+05 | 2.40E+10 | 5.39E-03 | 7.66E-04 | 1.67E-01 | 5.47E-01 |
| *Icosteus aenigmaticus* | 200-600 | | | | | | | | |
| | 600-1,200 | 7.40E+01 | 2.03E+03 | 1.96E+04 | 1.30E+08 | 4.82E-02 | 6.30E-02 | 1.32E-02 | 4.48E-03 |
| | All depths | 7.40E+01 | 2.03E+03 | 1.96E+04 | 1.30E+08 | 1.99E-02 | 2.64E-02 | 5.43E-03 | 1.88E-03 |
| *Isidella* species | 200-600 | 3.19E-01 | 1.02E-01 | | | | | | |
| | 600-1,200 | 1.34E+01 | 8.81E+01 | | | | | | |
| | All depths | 1.37E+01 | 8.82E+01 | | | | | | |
| Isopoda | 200-600 | 9.03E-03 | 8.16E-05 | 4.52E+03 | 2.04E+07 | 4.62E-06 | 2.36E-09 | 2.31E-03 | 5.91E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 9.03E-03 | 8.16E-05 | 4.52E+03 | 2.04E+07 | 2.71E-06 | 1.39E-09 | 1.36E-03 | 3.47E-04 |
| *Japetella diaphana* | 200-600 | | | | | | | | |
| | 600-1,200 | 5.12E+00 | 9.74E+00 | 1.50E+04 | 7.69E+07 | 3.63E-03 | 3.68E-04 | 1.07E-02 | 2.97E-03 |
| | All depths | 5.12E+00 | 9.74E+00 | 1.50E+04 | 7.69E+07 | 1.50E-03 | 1.54E-04 | 4.41E-03 | 1.25E-03 |
| *Keratoisis* species | 200-600 | | | | | | | | |
| | 600-1,200 | 1.62E+00 | 2.64E+00 | | | | | | |
| | All depths | 1.62E+00 | 2.64E+00 | | | | | | |
| *Labidochirus splendescens* | 200-600 | 5.55E-01 | 4.83E-02 | 5.29E+04 | 4.68E+08 | 2.71E-04 | 1.35E-06 | 2.55E-02 | 1.30E-02 |
| | 600-1,200 | | | | | | | | |
| | All depths | 5.55E-01 | 4.83E-02 | 5.29E+04 | 4.68E+08 | 1.59E-04 | 8.10E-07 | 1.50E-02 | 7.79E-03 |
| *Lampanyctus jordani* | 200-600 | 6.86E+00 | 1.11E+01 | 2.09E+05 | 1.07E+10 | 3.44E-03 | 3.28E-04 | 1.05E-01 | 3.15E-01 |
| | 600-1,200 | 3.87E+00 | 4.78E+00 | 1.24E+05 | 4.74E+09 | 2.79E-03 | 2.10E-04 | 8.90E-02 | 2.06E-01 |
| | All depths | 1.07E+01 | 1.59E+01 | 3.33E+05 | 1.55E+10 | 3.17E-03 | 2.78E-04 | 9.83E-02 | 2.69E-01 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Lampanyctus* species | 200-600 | | | | | | | | |
| | 600-1,200 | 5.71E-01 | 1.70E-01 | 1.18E+04 | 7.18E+07 | 3.57E-04 | 4.99E-06 | 7.41E-03 | 2.13E-03 |
| | All depths | 5.71E-01 | 1.70E-01 | 1.18E+04 | 7.18E+07 | 1.47E-04 | 2.07E-06 | 3.06E-03 | 8.86E-04 |
| *Lampetra tridentata* | 200-600 | 6.32E+01 | 1.58E+02 | 2.01E+05 | 1.49E+09 | 3.20E-02 | 4.72E-03 | 1.03E-01 | 4.49E-02 |
| | 600-1,200 | 3.01E+01 | 1.03E+02 | 1.16E+05 | 1.75E+09 | 2.19E-02 | 3.71E-03 | 8.25E-02 | 5.64E-02 |
| | All depths | 9.33E+01 | 2.61E+02 | 3.17E+05 | 3.25E+09 | 2.78E-02 | 4.31E-03 | 9.43E-02 | 4.94E-02 |
| *Laqueus californianus* | 200-600 | 9.62E-01 | 9.25E-01 | 5.24E+04 | 2.74E+09 | 4.91E-04 | 2.67E-05 | 2.67E-02 | 7.92E-02 |
| | 600-1,200 | 2.48E+00 | 2.62E+00 | 3.65E+05 | 5.58E+10 | 2.08E-03 | 1.74E-04 | 3.06E-01 | 3.72E+00 |
| | All depths | 3.44E+00 | 3.55E+00 | 4.17E+05 | 5.85E+10 | 1.15E-03 | 8.75E-05 | 1.42E-01 | 1.59E+00 |
| *Lebbeus* species | 200-600 | | | | | | | | |
| | 600-1,200 | 2.66E-01 | 3.54E-02 | 2.23E+04 | 2.51E+08 | 1.88E-04 | 1.36E-06 | 1.58E-02 | 9.72E-03 |
| | All depths | 2.66E-01 | 3.54E-02 | 2.23E+04 | 2.51E+08 | 7.76E-05 | 5.66E-07 | 6.52E-03 | 4.04E-03 |
| *Lepidopsetta polyxystra* | 200-600 | 1.56E+02 | 6.61E+03 | 2.41E+05 | 1.39E+10 | 7.89E-02 | 1.72E-01 | 1.23E-01 | 3.67E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.56E+02 | 6.61E+03 | 2.41E+05 | 1.39E+10 | 4.64E-02 | 1.02E-01 | 7.23E-02 | 2.18E-01 |
| *Leptagonus frenatus* | 200-600 | 1.82E+02 | 2.11E+03 | 3.38E+06 | 7.00E+11 | 9.56E-02 | 6.16E-02 | 1.76E+00 | 2.03E+01 |
| | 600-1,200 | 2.88E-01 | 8.30E-02 | 4.37E+03 | 1.91E+07 | 2.03E-04 | 3.21E-06 | 3.07E-03 | 7.37E-04 |
| | All depths | 1.82E+02 | 2.11E+03 | 3.38E+06 | 7.00E+11 | 5.62E-02 | 3.82E-02 | 1.04E+00 | 1.26E+01 |
| *Leuroglossus schmidti* | 200-600 | 7.65E+01 | 1.08E+03 | 1.05E+07 | 1.68E+13 | 3.82E-02 | 2.71E-02 | 5.30E+00 | 4.37E+02 |
| | 600-1,200 | 1.99E+01 | 2.09E+01 | 2.08E+06 | 2.41E+11 | 1.37E-02 | 8.08E-04 | 1.43E+00 | 9.43E+00 |
| | All depths | 9.64E+01 | 1.10E+03 | 1.26E+07 | 1.70E+13 | 2.81E-02 | 1.63E-02 | 3.70E+00 | 2.63E+02 |
| *Lillipathes* species B | 200-600 | | | | | | | | |
| | 600-1,200 | 1.91E+00 | 3.65E+00 | | | | | | |
| | All depths | 1.91E+00 | 3.65E+00 | | | | | | |
| Liparidae | 200-600 | 6.85E-02 | 1.85E-03 | 3.37E+04 | 4.41E+08 | 3.49E-05 | 5.28E-08 | 1.67E-02 | 1.16E-02 |
| | 600-1,200 | 6.82E+00 | 2.90E+00 | 6.45E+05 | 1.69E+10 | 4.76E-03 | 1.18E-04 | 4.51E-01 | 7.92E-01 |
| | All depths | 6.89E+00 | 2.90E+00 | 6.79E+05 | 1.73E+10 | 1.98E-03 | 5.38E-05 | 1.96E-01 | 3.77E-01 |
| *Liparisc us nanus* | 200-600 | | | | | | | | |
| | 600-1,200 | 8.35E-02 | 6.97E-03 | 3.13E+04 | 9.80E+08 | 4.54E-05 | 1.61E-07 | 1.70E-02 | 2.26E-02 |
| | All depths | 8.35E-02 | 6.97E-03 | 3.13E+04 | 9.80E+08 | 1.87E-05 | 6.62E-08 | 7.02E-03 | 9.32E-03 |
| *Liponema brevicornis* | 200-600 | 2.31E+03 | 1.56E+05 | 2.44E+07 | 2.04E+13 | 1.23E+00 | 4.57E+00 | 1.25E+01 | 6.00E+02 |
| | 600-1,200 | 3.62E+01 | 1.06E+02 | 6.26E+05 | 6.27E+10 | 2.72E-02 | 4.89E-03 | 4.81E-01 | 3.26E+00 |
| | All depths | 2.35E+03 | 1.56E+05 | 2.50E+07 | 2.05E+13 | 7.32E-01 | 3.03E+00 | 7.52E+00 | 3.88E+02 |
| *Lithodes aequispinus* | 200-600 | 1.70E+03 | 2.54E+05 | 1.63E+06 | 2.15E+11 | 8.07E-01 | 6.81E+00 | 8.45E-01 | 6.29E+00 |
| | 600-1,200 | 3.24E+02 | 2.61E+04 | 1.50E+06 | 1.12E+12 | 2.32E-01 | 1.29E+00 | 1.27E+00 | 7.17E+01 |
| | All depths | 2.03E+03 | 2.80E+05 | 3.12E+06 | 1.34E+12 | 5.68E-01 | 4.58E+00 | 1.02E+00 | 3.32E+01 |
| *Lithodes couesi* | 200-600 | 6.88E+00 | 4.73E+01 | 3.91E+03 | 1.53E+07 | 4.24E-03 | 2.00E-03 | 2.41E-03 | 6.44E-04 |
| | 600-1,200 | 4.57E+02 | 9.18E+03 | 7.59E+05 | 2.49E+10 | 3.51E-01 | 7.26E-01 | 5.82E-01 | 1.66E+00 |
| | All depths | 4.64E+02 | 9.23E+03 | 7.63E+05 | 2.49E+10 | 1.47E-01 | 3.28E-01 | 2.42E-01 | 7.60E-01 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Lophaster furcilliger* | 200-600 | 1.64E+01 | 3.08E+01 | 6.23E+05 | 2.80E+10 | 8.95E-03 | 1.08E-03 | 3.34E-01 | 9.57E-01 |
| | 600-1,200 | 6.62E+01 | 4.13E+02 | 3.08E+06 | 8.47E+11 | 4.33E-02 | 1.90E-02 | 1.97E+00 | 4.39E+01 |
| | All depths | 8.27E+01 | 4.44E+02 | 3.70E+06 | 8.75E+11 | 2.31E-02 | 8.70E-03 | 1.01E+00 | 1.92E+01 |
| *Lophaster* species | 200-600 | 4.61E-02 | 2.12E-03 | 4.61E+03 | 2.12E+07 | 2.56E-05 | 7.27E-08 | 2.56E-03 | 7.27E-04 |
| | 600-1,200 | 5.26E-01 | 2.77E-01 | 1.38E+04 | 1.92E+08 | 3.05E-04 | 7.28E-06 | 8.04E-03 | 5.04E-03 |
| | All depths | 5.72E-01 | 2.79E-01 | 1.84E+04 | 2.13E+08 | 1.41E-04 | 3.04E-06 | 4.82E-03 | 2.50E-03 |
| *Lophaster vexator* | 200-600 | | | | | | | | |
| | 600-1,200 | 2.26E-01 | 5.11E-02 | 7.07E+03 | 4.99E+07 | 1.90E-04 | 2.80E-06 | 5.92E-03 | 2.74E-03 |
| | All depths | 2.26E-01 | 5.11E-02 | 7.07E+03 | 4.99E+07 | 7.82E-05 | 1.16E-06 | 2.45E-03 | 1.13E-03 |
| *Lumpenella longirostris* | 200-600 | 1.52E+00 | 1.20E+00 | 2.60E+04 | 3.48E+08 | 8.96E-04 | 4.64E-05 | 1.52E-02 | 1.35E-02 |
| | 600-1,200 | 1.25E+00 | 1.57E+00 | 2.32E+04 | 5.38E+08 | 1.05E-03 | 8.61E-05 | 1.95E-02 | 2.95E-02 |
| | All depths | 2.78E+00 | 2.77E+00 | 4.92E+04 | 8.86E+08 | 9.60E-04 | 6.24E-05 | 1.70E-02 | 2.00E-02 |
| *Lycenchelys camchatica* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.23E+01 | 3.23E+01 | 1.50E+05 | 3.57E+09 | 9.52E-03 | 1.88E-03 | 1.13E-01 | 2.01E-01 |
| | All depths | 1.23E+01 | 3.23E+01 | 1.50E+05 | 3.57E+09 | 3.93E-03 | 7.92E-04 | 4.66E-02 | 8.53E-02 |
| *Lycodapus* species | 200-600 | 8.43E-01 | 1.92E-01 | 2.69E+05 | 1.56E+10 | 4.31E-04 | 5.86E-06 | 1.37E-01 | 4.70E-01 |
| | 600-1,200 | 1.24E+00 | 1.91E-01 | 2.63E+05 | 8.44E+09 | 8.67E-04 | 7.16E-06 | 1.85E-01 | 3.14E-01 |
| | All depths | 2.08E+00 | 3.83E-01 | 5.32E+05 | 2.40E+10 | 6.11E-04 | 6.41E-06 | 1.57E-01 | 4.04E-01 |
| *Lycodes beringi* | 200-600 | 9.27E+01 | 2.28E+02 | 1.54E+06 | 6.79E+10 | 4.96E-02 | 9.75E-03 | 8.24E-01 | 2.93E+00 |
| | 600-1,200 | 4.53E+01 | 9.91E+01 | 1.07E+06 | 6.03E+10 | 3.33E-02 | 4.65E-03 | 7.76E-01 | 2.65E+00 |
| | All depths | 1.38E+02 | 3.27E+02 | 2.62E+06 | 1.28E+11 | 4.29E-02 | 7.67E-03 | 8.04E-01 | 2.80E+00 |
| *Lycodes brevipes* | 200-600 | 1.57E+00 | 1.17E+00 | 2.64E+04 | 3.26E+08 | 8.72E-04 | 4.25E-05 | 1.47E-02 | 1.18E-02 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.57E+00 | 1.17E+00 | 2.64E+04 | 3.26E+08 | 5.12E-04 | 2.51E-05 | 8.61E-03 | 6.98E-03 |
| *Lycodes concolor* | 200-600 | 8.42E+02 | 1.01E+05 | 6.81E+05 | 5.47E+10 | 4.48E-01 | 3.22E+00 | 3.66E-01 | 1.84E+00 |
| | 600-1,200 | 7.08E+02 | 6.00E+04 | 9.62E+05 | 1.24E+11 | 5.28E-01 | 2.77E+00 | 7.09E-01 | 5.57E+00 |
| | All depths | 1.55E+03 | 1.61E+05 | 1.64E+06 | 1.79E+11 | 4.81E-01 | 3.02E+00 | 5.07E-01 | 3.39E+00 |
| *Lyopsetta exilis* | 200-600 | 8.07E-01 | 3.64E-01 | 9.61E+03 | 4.39E+07 | 3.80E-04 | 9.25E-06 | 4.53E-03 | 1.13E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 8.07E-01 | 3.64E-01 | 9.61E+03 | 4.39E+07 | 2.23E-04 | 5.45E-06 | 2.66E-03 | 6.66E-04 |
| *Malacocottus zonurus* | 200-600 | 1.48E+03 | 4.60E+05 | 1.18E+07 | 1.00E+13 | 7.51E-01 | 1.16E+01 | 6.24E+00 | 3.08E+02 |
| | 600-1,200 | 2.30E+01 | 2.09E+02 | 3.55E+05 | 2.03E+10 | 1.71E-02 | 9.27E-03 | 2.68E-01 | 9.71E-01 |
| | All depths | 1.50E+03 | 4.60E+05 | 1.21E+07 | 1.00E+13 | 4.48E-01 | 6.90E+00 | 3.78E+00 | 1.89E+02 |
| *Mediaster aequalis* | 200-600 | 5.03E-02 | 2.53E-03 | 2.79E+03 | 7.80E+06 | 4.26E-05 | 2.01E-07 | 2.36E-03 | 6.20E-04 |
| | 600-1,200 | 1.09E+00 | 4.49E-01 | 4.83E+04 | 1.05E+09 | 7.94E-04 | 1.66E-05 | 3.50E-02 | 3.86E-02 |
| | All depths | 1.15E+00 | 4.51E-01 | 5.11E+04 | 1.06E+09 | 3.53E-04 | 7.07E-06 | 1.58E-02 | 1.64E-02 |
| *Mediaster* species | 200-600 | 6.95E-01 | 1.25E-01 | 3.65E+04 | 2.77E+08 | 3.45E-04 | 3.50E-06 | 1.80E-02 | 7.62E-03 |
| | 600-1,200 | 7.34E+00 | 3.25E+01 | 3.42E+05 | 6.33E+10 | 5.11E-03 | 1.22E-03 | 2.38E-01 | 2.37E+00 |
| | All depths | 8.03E+00 | 3.26E+01 | 3.78E+05 | 6.36E+10 | 2.31E-03 | 5.06E-04 | 1.09E-01 | 9.86E-01 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| | 200-600 | | | | | | | | |
| *Melamphaes lugubris* | 600-1,200 | 6.98E-02 | 4.87E-03 | 4.36E+03 | 1.90E+07 | 4.62E-05 | 1.67E-07 | 2.89E-03 | 6.51E-04 |
| | All depths | 6.98E-02 | 4.87E-03 | 4.36E+03 | 1.90E+07 | 1.91E-05 | 6.88E-08 | 1.19E-03 | 2.69E-04 |
| | 200-600 | | | | | | | | |
| Melamphaidae | 600-1,200 | 8.87E-01 | 2.41E-01 | 3.17E+04 | 2.91E+08 | 5.72E-04 | 7.51E-06 | 2.06E-02 | 9.22E-03 |
| | All depths | 8.87E-01 | 2.41E-01 | 3.17E+04 | 2.91E+08 | 2.36E-04 | 3.16E-06 | 8.51E-03 | 3.88E-03 |
| | 200-600 | 1.20E+01 | 5.93E+01 | 1.01E+05 | 4.30E+09 | 7.85E-03 | 2.98E-03 | 7.13E-02 | 3.03E-01 |
| *Metridium farcimen* | 600-1,200 | | | | | | | | |
| | All depths | 1.20E+01 | 5.93E+01 | 1.01E+05 | 4.30E+09 | 4.61E-03 | 1.76E-03 | 4.19E-02 | 1.79E-01 |
| | 200-600 | 1.02E+01 | 2.23E+01 | 1.24E+05 | 2.41E+09 | 4.91E-03 | 5.60E-04 | 5.92E-02 | 6.15E-02 |
| *Metridium* species | 600-1,200 | | | | | | | | |
| | All depths | 1.02E+01 | 2.23E+01 | 1.24E+05 | 2.41E+09 | 2.89E-03 | 3.34E-04 | 3.48E-02 | 3.68E-02 |
| | 200-600 | 6.50E+02 | 6.26E+04 | 5.81E+05 | 5.18E+10 | 3.24E-01 | 1.85E+00 | 2.88E-01 | 1.51E+00 |
| *Microstomus pacificus* | 600-1,200 | 5.19E+01 | 2.70E+03 | 2.40E+04 | 5.74E+08 | 3.82E-02 | 1.14E-01 | 1.76E-02 | 2.43E-02 |
| | All depths | 7.02E+02 | 6.53E+04 | 6.04E+05 | 5.24E+10 | 2.06E-01 | 1.15E+00 | 1.77E-01 | 9.12E-01 |
| | 200-600 | 4.35E-01 | 1.89E-01 | 1.36E+04 | 1.85E+08 | 2.42E-04 | 6.48E-06 | 7.55E-03 | 6.32E-03 |
| *Molpadia intermedia* | 600-1,200 | 1.02E+00 | 1.03E+00 | 2.31E+04 | 5.33E+08 | 6.86E-04 | 3.67E-05 | 1.56E-02 | 1.89E-02 |
| | All depths | 1.45E+00 | 1.22E+00 | 3.67E+04 | 7.18E+08 | 4.25E-04 | 1.89E-05 | 1.09E-02 | 1.15E-02 |
| | 200-600 | 1.61E+01 | 2.61E+02 | 4.28E+05 | 1.83E+11 | 9.38E-03 | 9.77E-03 | 2.49E-01 | 6.87E+00 |
| *Molpadia* species | 600-1,200 | | | | | | | | |
| | All depths | 1.61E+01 | 2.61E+02 | 4.28E+05 | 1.83E+11 | 5.51E-03 | 5.74E-03 | 1.46E-01 | 4.03E+00 |
| | 200-600 | 4.61E+01 | 4.21E+02 | | | | | | |
| *Mycale loveni* | 600-1,200 | 6.15E+00 | 3.54E+01 | | | | | | |
| | All depths | 5.22E+01 | 4.56E+02 | | | | | | |
| | 200-600 | | | | | | | | |
| Myctophidae | 600-1,200 | 3.81E-01 | 1.45E-01 | 4.89E+03 | 2.39E+07 | 2.65E-04 | 5.47E-06 | 3.40E-03 | 9.00E-04 |
| | All depths | 3.81E-01 | 1.45E-01 | 4.89E+03 | 2.39E+07 | 1.09E-04 | 2.26E-06 | 1.40E-03 | 3.71E-04 |
| | 200-600 | 2.90E+02 | 1.85E+04 | 1.16E+05 | 2.86E+09 | 1.61E-01 | 7.56E-01 | 6.43E-02 | 1.17E-01 |
| *Myoxocephalus polyacanthocephalus* | 600-1,200 | | | | | | | | |
| | All depths | 2.90E+02 | 1.85E+04 | 1.16E+05 | 2.86E+09 | 9.45E-02 | 4.48E-01 | 3.78E-02 | 6.96E-02 |
| | 200-600 | | | | | | | | |
| *Myxoderma sacculatum* | 600-1,200 | 4.39E+01 | 2.60E+02 | 5.22E+05 | 4.57E+10 | 2.92E-02 | 8.72E-03 | 3.45E-01 | 1.36E+00 |
| | All depths | 4.39E+01 | 2.60E+02 | 5.22E+05 | 4.57E+10 | 1.21E-02 | 3.78E-03 | 1.42E-01 | 5.87E-01 |
| | 200-600 | | | | | | | | |
| *Nannobrachium regale* | 600-1,200 | 2.54E+00 | 3.32E+00 | 2.30E+05 | 4.23E+10 | 1.79E-03 | 1.24E-04 | 1.61E-01 | 1.60E+00 |
| | All depths | 2.54E+00 | 3.32E+00 | 2.30E+05 | 4.23E+10 | 7.39E-04 | 5.17E-05 | 6.65E-02 | 6.61E-01 |
| | 200-600 | | | | | | | | |
| *Nearchaster pedicellaris* | 600-1,200 | 1.08E+01 | 1.17E+02 | 2.44E+05 | 5.97E+10 | 7.95E-03 | 4.93E-03 | 1.80E-01 | 2.52E+00 |
| | All depths | 1.08E+01 | 1.17E+02 | 2.44E+05 | 5.97E+10 | 3.28E-03 | 2.03E-03 | 7.42E-02 | 1.04E+00 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Nearchaster variabilis* | 200-600 | 1.94E+02 | 6.68E+03 | 4.51E+06 | 4.61E+12 | 9.94E-02 | 2.18E-01 | 2.31E+00 | 1.45E+02 |
| | 600-1,200 | 7.74E+02 | 7.29E+04 | 2.94E+07 | 1.17E+14 | 5.62E-01 | 3.33E+00 | 2.09E+01 | 5.35E+03 |
| | All depths | 9.68E+02 | 7.96E+04 | 3.39E+07 | 1.22E+14 | 2.90E-01 | 1.54E+00 | 9.96E+00 | 2.36E+03 |
| *Nectoliparis pelagicus* | 200-600 | 9.03E-03 | 8.16E-05 | 4.52E+03 | 2.04E+07 | 4.61E-06 | 2.35E-09 | 2.30E-03 | 5.89E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 9.03E-03 | 8.16E-05 | 4.52E+03 | 2.04E+07 | 2.71E-06 | 1.38E-09 | 1.35E-03 | 3.46E-04 |
| *Neognathophausia* species | 200-600 | | | | | | | | |
| | 600-1,200 | 1.74E-02 | 3.04E-04 | 4.36E+03 | 1.90E+07 | 1.16E-05 | 1.04E-08 | 2.89E-03 | 6.51E-04 |
| | All depths | 1.74E-02 | 3.04E-04 | 4.36E+03 | 1.90E+07 | 4.77E-06 | 4.30E-09 | 1.19E-03 | 2.69E-04 |
| *Neomenia* cf. *yamamoti* | 200-600 | 1.51E-01 | 2.28E-02 | 4.20E+03 | 1.76E+07 | 8.39E-05 | 7.82E-07 | 2.33E-03 | 6.03E-04 |
| | 600-1,200 | 3.80E+01 | 5.73E+02 | 1.07E+06 | 4.95E+11 | 2.20E-02 | 2.04E-02 | 6.22E-01 | 1.72E+01 |
| | All depths | 3.81E+01 | 5.73E+02 | 1.08E+06 | 4.95E+11 | 9.14E-03 | 8.47E-03 | 2.58E-01 | 7.15E+00 |
| *Neomenia* species | 200-600 | | | | | | | | |
| | 600-1,200 | 1.69E+00 | 2.85E+00 | 7.61E+04 | 5.80E+09 | 9.80E-04 | 7.50E-05 | 4.42E-02 | 1.52E-01 |
| | All depths | 1.69E+00 | 2.85E+00 | 7.61E+04 | 5.80E+09 | 4.05E-04 | 3.09E-05 | 1.82E-02 | 6.29E-02 |
| *Neptunea amianta* | 200-600 | 5.96E+01 | 5.60E+02 | 6.50E+05 | 5.14E+10 | 3.23E-02 | 1.65E-02 | 3.66E-01 | 1.86E+00 |
| | 600-1,200 | 1.45E+02 | 4.48E+02 | 3.33E+06 | 2.01E+11 | 1.03E-01 | 2.72E-02 | 2.36E+00 | 1.35E+01 |
| | All depths | 2.05E+02 | 1.01E+03 | 3.98E+06 | 2.52E+11 | 6.16E-02 | 2.20E-02 | 1.19E+00 | 7.58E+00 |
| *Neptunea lyrata* | 200-600 | 3.03E-01 | 9.17E-02 | 4.33E+03 | 1.87E+07 | 1.68E-04 | 3.14E-06 | 2.40E-03 | 6.41E-04 |
| | 600-1,200 | 9.39E-01 | 8.81E-01 | 1.68E+04 | 2.81E+08 | 7.87E-04 | 4.83E-05 | 1.41E-02 | 1.54E-02 |
| | All depths | 1.24E+00 | 9.73E-01 | 2.11E+04 | 3.00E+08 | 4.24E-04 | 2.17E-05 | 7.21E-03 | 6.72E-03 |
| *Neptunea pribiloffensis* | 200-600 | 5.96E+02 | 1.18E+05 | 5.61E+06 | 1.06E+13 | 3.06E-01 | 3.48E+00 | 2.90E+00 | 3.13E+02 |
| | 600-1,200 | 3.38E+01 | 2.01E+02 | 4.81E+05 | 3.45E+10 | 2.48E-02 | 1.07E-02 | 3.51E-01 | 1.80E+00 |
| | All depths | 6.30E+02 | 1.18E+05 | 6.09E+06 | 1.06E+13 | 1.90E-01 | 2.06E+00 | 1.85E+00 | 1.85E+02 |
| *Neptunea* species | 200-600 | | | | | | | | |
| | 600-1,200 | 5.88E-01 | 1.88E-01 | 1.28E+04 | 8.27E+07 | 4.84E-04 | 9.97E-06 | 1.05E-02 | 4.30E-03 |
| | All depths | 5.88E-01 | 1.88E-01 | 1.28E+04 | 8.27E+07 | 2.00E-04 | 4.14E-06 | 4.32E-03 | 1.79E-03 |
| Nudibranchia | 200-600 | 3.87E+01 | 3.50E+02 | 2.13E+06 | 8.58E+11 | 1.88E-02 | 8.63E-03 | 1.05E+00 | 2.18E+01 |
| | 600-1,200 | 2.91E+01 | 3.19E+02 | 1.81E+06 | 2.14E+12 | 2.17E-02 | 1.50E-02 | 1.47E+00 | 1.17E+02 |
| | All depths | 6.78E+01 | 6.69E+02 | 3.94E+06 | 2.99E+12 | 2.00E-02 | 1.12E-02 | 1.22E+00 | 6.06E+01 |
| Octopodidae | 200-600 | | | | | | | | |
| | 600-1,200 | 1.32E+00 | 1.12E+00 | 1.55E+04 | 8.14E+07 | 9.31E-04 | 4.44E-05 | 1.08E-02 | 3.02E-03 |
| | All depths | 1.32E+00 | 1.12E+00 | 1.55E+04 | 8.14E+07 | 3.84E-04 | 1.84E-05 | 4.44E-03 | 1.26E-03 |
| *Octopus dofleini* | 200-600 | 6.37E+02 | 7.81E+04 | 4.94E+05 | 3.19E+10 | 3.37E-01 | 2.15E+00 | 2.62E-01 | 8.99E-01 |
| | 600-1,200 | 1.06E+01 | 5.71E+01 | 8.98E+03 | 4.04E+07 | 7.64E-03 | 2.31E-03 | 6.46E-03 | 1.61E-03 |
| | All depths | 6.47E+02 | 7.82E+04 | 5.03E+05 | 3.20E+10 | 2.01E-01 | 1.29E+00 | 1.56E-01 | 5.43E-01 |
| *Oneirodes bulbosus* | 200-600 | | | | | | | | |
| | 600-1,200 | 7.35E+00 | 5.24E+00 | 6.53E+04 | 3.06E+08 | 5.23E-03 | 2.08E-04 | 4.69E-02 | 1.33E-02 |
| | All depths | 7.35E+00 | 5.24E+00 | 6.53E+04 | 3.06E+08 | 2.16E-03 | 9.19E-05 | 1.94E-02 | 6.00E-03 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Oneirodes* species | 200-600 | 1.22E+00 | 1.49E+00 | 4.52E+03 | 2.04E+07 | 6.22E-04 | 4.29E-05 | 2.30E-03 | 5.89E-04 |
| | 600-1,200 | 2.41E-01 | 5.82E-02 | 4.02E+03 | 1.62E+07 | 2.02E-04 | 3.19E-06 | 3.37E-03 | 8.86E-04 |
| | All depths | 1.46E+00 | 1.54E+00 | 8.54E+03 | 3.66E+07 | 4.49E-04 | 2.65E-05 | 2.74E-03 | 7.08E-04 |
| *Oneirodes thompsoni* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.69E+01 | 1.40E+01 | 1.09E+05 | 3.21E+08 | 1.19E-02 | 6.42E-04 | 7.53E-02 | 2.14E-02 |
| | All depths | 1.69E+01 | 1.40E+01 | 1.09E+05 | 3.21E+08 | 4.89E-03 | 2.97E-04 | 3.11E-02 | 1.01E-02 |
| *Ophiopholis aculeata* | 200-600 | 4.77E+01 | 9.73E+02 | 1.70E+07 | 1.37E+14 | 2.65E-02 | 3.48E-02 | 9.54E+00 | 4.98E+03 |
| | 600-1,200 | 1.48E+02 | 2.18E+04 | 6.19E+07 | 3.82E+15 | 1.15E-01 | 1.02E+00 | 4.79E+01 | 1.79E+05 |
| | All depths | 1.96E+02 | 2.28E+04 | 7.89E+07 | 3.96E+15 | 6.29E-02 | 4.40E-01 | 2.54E+01 | 7.65E+04 |
| *Ophiopholis* species | 200-600 | 2.04E+01 | 2.99E+02 | 1.36E+07 | 1.61E+14 | 1.04E-02 | 8.62E-03 | 6.94E+00 | 4.64E+03 |
| | 600-1,200 | 7.99E+00 | 2.47E+01 | 1.48E+06 | 7.07E+11 | 5.87E-03 | 1.17E-03 | 1.09E+00 | 3.42E+01 |
| | All depths | 2.83E+01 | 3.24E+02 | 1.51E+07 | 1.61E+14 | 8.52E-03 | 5.53E-03 | 4.53E+00 | 2.74E+03 |
| *Ophiura sarsi* | 200-600 | 3.48E+03 | 1.24E+06 | 3.73E+09 | 1.83E+18 | 1.62E+00 | 4.33E+01 | 1.84E+03 | 6.21E+07 |
| | 600-1,200 | 2.12E+03 | 6.85E+05 | 2.54E+09 | 1.44E+18 | 1.55E+00 | 3.76E+01 | 1.86E+03 | 7.41E+07 |
| | All depths | 5.60E+03 | 1.93E+06 | 6.27E+09 | 3.27E+18 | 1.59E+00 | 4.07E+01 | 1.85E+03 | 6.67E+07 |
| Ophiuroidea | 200-600 | 6.94E-02 | 4.82E-03 | 4.96E+03 | 2.46E+07 | 3.55E-05 | 1.40E-07 | 2.54E-03 | 7.13E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 6.94E-02 | 4.82E-03 | 4.96E+03 | 2.46E+07 | 2.08E-05 | 8.21E-08 | 1.49E-03 | 4.19E-04 |
| *Opisthoteuthis californiana* | 200-600 | 2.84E+02 | 5.08E+03 | 6.57E+05 | 2.24E+10 | 1.57E-01 | 2.13E-01 | 3.55E-01 | 9.24E-01 |
| | 600-1,200 | 5.78E+01 | 6.77E+02 | 1.91E+05 | 3.31E+09 | 4.44E-02 | 3.06E-02 | 1.44E-01 | 1.67E-01 |
| | All depths | 3.42E+02 | 5.76E+03 | 8.48E+05 | 2.57E+10 | 1.10E-01 | 1.40E-01 | 2.68E-01 | 6.20E-01 |
| *Oregonia bifurca* | 200-600 | | | | | | | | |
| | 600-1,200 | 6.14E-02 | 3.78E-03 | 6.14E+03 | 3.78E+07 | 4.76E-05 | 1.77E-07 | 4.76E-03 | 1.77E-03 |
| | All depths | 6.14E-02 | 3.78E-03 | 6.14E+03 | 3.78E+07 | 1.96E-05 | 7.29E-08 | 1.96E-03 | 7.29E-04 |
| *Oregonia gracilis* | 200-600 | 3.90E-01 | 2.61E-02 | 2.96E+04 | 1.39E+08 | 2.12E-04 | 8.84E-07 | 1.65E-02 | 5.55E-03 |
| | 600-1,200 | 2.60E-02 | 6.74E-04 | 4.33E+03 | 1.87E+07 | 1.91E-05 | 2.85E-08 | 3.18E-03 | 7.91E-04 |
| | All depths | 4.16E-01 | 2.68E-02 | 3.39E+04 | 1.58E+08 | 1.32E-04 | 5.38E-07 | 1.10E-02 | 3.61E-03 |
| Osteichthyes | 200-600 | | | | | | | | |
| | 600-1,200 | 5.47E-02 | 2.99E-03 | | | | | | |
| | All depths | 5.47E-02 | 2.99E-03 | | | | | | |
| *Otukaia kiheiziebisu* | 200-600 | | | | | | | | |
| | 600-1,200 | 6.32E-02 | 3.99E-03 | 6.32E+03 | 3.99E+07 | 3.67E-05 | 1.05E-07 | 3.67E-03 | 1.05E-03 |
| | All depths | 6.32E-02 | 3.99E-03 | 6.32E+03 | 3.99E+07 | 1.51E-05 | 4.33E-08 | 1.51E-03 | 4.33E-04 |
| *Pagurus aleuticus* | 200-600 | 3.61E+00 | 5.57E+00 | 3.51E+04 | 3.38E+08 | 1.70E-03 | 1.45E-04 | 1.66E-02 | 9.19E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 3.61E+00 | 5.57E+00 | 3.51E+04 | 3.38E+08 | 1.00E-03 | 8.54E-05 | 9.72E-03 | 5.44E-03 |
| *Pagurus brandti* | 200-600 | 5.28E-01 | 1.63E-01 | 2.81E+04 | 3.96E+08 | 2.62E-04 | 4.22E-06 | 1.43E-02 | 1.13E-02 |
| | 600-1,200 | | | | | | | | |
| | All depths | 5.28E-01 | 1.63E-01 | 2.81E+04 | 3.96E+08 | 1.54E-04 | 2.49E-06 | 8.41E-03 | 6.66E-03 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Pagurus confragosus* | 200-600 | 1.04E+01 | 1.63E+01 | 2.43E+05 | 8.74E+09 | 5.03E-03 | 4.72E-04 | 1.16E-01 | 2.50E-01 |
| | 600-1,200 | 5.09E-01 | 2.59E-01 | 4.24E+03 | 1.80E+07 | 3.75E-04 | 1.10E-05 | 3.12E-03 | 7.61E-04 |
| | All depths | 1.09E+01 | 1.66E+01 | 2.47E+05 | 8.76E+09 | 3.11E-03 | 2.86E-04 | 6.97E-02 | 1.49E-01 |
| *Pagurus cornutus* | 200-600 | 1.99E+02 | 5.07E+03 | 3.98E+06 | 2.36E+12 | 1.08E-01 | 1.71E-01 | 2.19E+00 | 8.07E+01 |
| | 600-1,200 | 3.77E-01 | 5.28E-02 | 1.45E+04 | 7.16E+07 | 2.90E-04 | 2.54E-06 | 1.10E-02 | 3.21E-03 |
| | All depths | 1.99E+02 | 5.07E+03 | 4.00E+06 | 2.36E+12 | 6.35E-02 | 1.03E-01 | 1.29E+00 | 4.84E+01 |
| *Pagurus* species | 200-600 | 1.68E-01 | 2.82E-02 | 5.25E+03 | 2.76E+07 | 7.92E-05 | 6.96E-07 | 2.47E-03 | 6.80E-04 |
| | 600-1,200 | 2.25E-01 | 5.05E-02 | 1.41E+04 | 1.97E+08 | 1.61E-04 | 2.03E-06 | 1.01E-02 | 7.94E-03 |
| | All depths | 3.93E-01 | 7.88E-02 | 1.93E+04 | 2.25E+08 | 1.13E-04 | 1.24E-06 | 5.62E-03 | 3.66E-03 |
| *Pagurus tanneri* | 200-600 | 1.43E+01 | 4.02E+01 | 3.53E+05 | 1.87E+10 | 7.21E-03 | 1.22E-03 | 1.77E-01 | 5.55E-01 |
| | 600-1,200 | 2.12E+01 | 2.07E+01 | 7.43E+05 | 1.78E+10 | 1.54E-02 | 1.27E-03 | 5.33E-01 | 1.12E+00 |
| | All depths | 3.55E+01 | 6.09E+01 | 1.10E+06 | 3.65E+10 | 1.06E-02 | 1.25E-03 | 3.24E-01 | 8.16E-01 |
| *Pagurus townsendi* | 200-600 | 4.37E+00 | 6.62E+00 | 1.35E+05 | 5.99E+09 | 2.30E-03 | 1.95E-04 | 7.13E-02 | 1.76E-01 |
| | 600-1,200 | 1.69E+01 | 2.85E+01 | 5.45E+05 | 2.93E+10 | 1.26E-02 | 1.29E-03 | 4.08E-01 | 1.27E+00 |
| | All depths | 2.12E+01 | 3.51E+01 | 6.81E+05 | 3.53E+10 | 6.56E-03 | 6.69E-04 | 2.10E-01 | 6.52E-01 |
| *Pagurus trigonocheirus* | 200-600 | 1.92E+01 | 6.49E+01 | 5.86E+05 | 6.08E+10 | 1.07E-02 | 2.78E-03 | 3.26E-01 | 2.60E+00 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.92E+01 | 6.49E+01 | 5.86E+05 | 6.08E+10 | 6.27E-03 | 1.66E-03 | 1.92E-01 | 1.55E+00 |
| *Pandalopsis ampla* | 200-600 | 1.14E+00 | 1.30E+00 | 5.70E+04 | 3.25E+09 | 6.33E-04 | 4.45E-05 | 3.17E-02 | 1.11E-01 |
| | 600-1,200 | 4.85E+01 | 2.21E+02 | 2.86E+06 | 6.49E+11 | 3.10E-02 | 8.13E-03 | 1.85E+00 | 2.62E+01 |
| | All depths | 4.96E+01 | 2.22E+02 | 2.92E+06 | 6.52E+11 | 1.32E-02 | 3.58E-03 | 7.81E-01 | 1.16E+01 |
| *Pandalopsis dispar* | 200-600 | 1.29E+02 | 1.58E+03 | 8.80E+06 | 1.22E+13 | 7.85E-02 | 6.60E-02 | 5.24E+00 | 4.22E+02 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.29E+02 | 1.58E+03 | 8.80E+06 | 1.22E+13 | 4.61E-02 | 4.01E-02 | 3.08E+00 | 2.54E+02 |
| *Pandalopsis longirostris* | 200-600 | 3.27E-01 | 1.07E-01 | 6.94E+04 | 4.82E+09 | 1.67E-04 | 3.11E-06 | 3.55E-02 | 1.40E-01 |
| | 600-1,200 | 6.51E-01 | 4.23E-01 | 2.77E+04 | 7.66E+08 | 3.78E-04 | 1.11E-05 | 1.61E-02 | 2.02E-02 |
| | All depths | 9.78E-01 | 5.30E-01 | 9.71E+04 | 5.59E+09 | 2.54E-04 | 6.39E-06 | 2.75E-02 | 9.02E-02 |
| *Pandalopsis* species | 200-600 | | | | | | | | |
| | 600-1,200 | 3.01E+00 | 1.63E+00 | 1.94E+05 | 6.68E+09 | 2.10E-03 | 7.24E-05 | 1.35E-01 | 3.24E-01 |
| | All depths | 3.01E+00 | 1.63E+00 | 1.94E+05 | 6.68E+09 | 8.65E-04 | 3.07E-05 | 5.56E-02 | 1.37E-01 |
| *Pandalus eous* | 200-600 | 8.20E+02 | 2.08E+04 | 1.66E+08 | 2.09E+15 | 4.34E-01 | 9.40E-01 | 8.74E+01 | 7.91E+04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 8.20E+02 | 2.08E+04 | 1.66E+08 | 2.09E+15 | 2.55E-01 | 5.96E-01 | 5.14E+01 | 4.81E+04 |
| *Pannychia moseleyi* | 200-600 | 1.84E+04 | 3.96E+07 | 1.01E+08 | 6.93E+14 | 6.72E+00 | 7.06E+02 | 4.85E+01 | 2.58E+04 |
| | 600-1,200 | 5.53E+03 | 3.21E+06 | 7.68E+07 | 6.14E+14 | 4.01E+00 | 1.77E+02 | 5.57E+01 | 3.40E+04 |
| | All depths | 2.39E+04 | 4.28E+07 | 1.78E+08 | 1.31E+15 | 5.59E+00 | 4.85E+02 | 5.15E+01 | 2.91E+04 |
| *Pannychia* species | 200-600 | 1.53E+03 | 1.33E+06 | 1.40E+07 | 1.35E+14 | 7.78E-01 | 3.94E+01 | 7.14E+00 | 3.97E+03 |
| | 600-1,200 | 7.99E+02 | 6.21E+05 | 6.99E+06 | 4.51E+13 | 5.87E-01 | 2.62E+01 | 5.13E+00 | 1.90E+03 |
| | All depths | 2.32E+03 | 1.95E+06 | 2.10E+07 | 1.80E+14 | 6.99E-01 | 3.38E+01 | 6.31E+00 | 3.10E+03 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Paractinostola faeculenta* | 200-600 | 1.58E+03 | 5.57E+05 | 3.86E+06 | 2.10E+12 | 9.44E-01 | 2.04E+01 | 2.36E+00 | 8.61E+01 |
| | 600-1,200 | 2.45E+02 | 1.07E+04 | 9.54E+05 | 1.36E+11 | 1.83E-01 | 5.03E-01 | 6.79E-01 | 4.70E+00 |
| | All depths | 1.82E+03 | 5.68E+05 | 4.82E+06 | 2.23E+12 | 6.30E-01 | 1.23E+01 | 1.66E+00 | 5.30E+01 |
| *Paragorgia arborea* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.15E+02 | 8.38E+03 | | | | | | |
| | All depths | 1.15E+02 | 8.38E+03 | | | | | | |
| *Paragorgia* species | 200-600 | 1.48E+00 | 2.19E+00 | | | | | | |
| | 600-1,200 | 2.71E+01 | 4.30E+02 | | | | | | |
| | All depths | 2.86E+01 | 4.32E+02 | | | | | | |
| *Paraliparis cephalus* | 200-600 | 9.72E-03 | 9.45E-05 | 4.86E+03 | 2.36E+07 | 4.96E-06 | 2.73E-09 | 2.48E-03 | 6.82E-04 |
| | 600-1,200 | 2.34E-01 | 1.76E-02 | 8.50E+04 | 2.13E+09 | 1.71E-04 | 8.80E-07 | 6.33E-02 | 1.09E-01 |
| | All depths | 2.43E-01 | 1.77E-02 | 8.99E+04 | 2.16E+09 | 7.35E-05 | 3.69E-07 | 2.76E-02 | 4.59E-02 |
| *Paraliparis dactylosus* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.45E+00 | 1.62E+00 | 2.51E+04 | 1.56E+08 | 1.08E-03 | 7.25E-05 | 1.76E-02 | 6.31E-03 |
| | All depths | 1.45E+00 | 1.62E+00 | 2.51E+04 | 1.56E+08 | 4.46E-04 | 3.00E-05 | 7.25E-03 | 2.66E-03 |
| *Paraliparis* species | 200-600 | | | | | | | | |
| | 600-1,200 | 1.61E-01 | 2.59E-02 | 2.37E+04 | 5.60E+08 | 1.12E-04 | 9.78E-07 | 1.65E-02 | 2.12E-02 |
| | All depths | 1.61E-01 | 2.59E-02 | 2.37E+04 | 5.60E+08 | 4.62E-05 | 4.04E-07 | 6.80E-03 | 8.73E-03 |
| *Paraliparis ulochir* | 200-600 | 5.60E-02 | 1.57E-03 | 9.33E+03 | 4.36E+07 | 3.14E-05 | 5.43E-08 | 5.23E-03 | 1.51E-03 |
| | 600-1,200 | 1.99E-01 | 9.30E-03 | 3.00E+04 | 2.02E+08 | 1.65E-04 | 5.33E-07 | 2.49E-02 | 1.20E-02 |
| | All depths | 2.55E-01 | 1.09E-02 | 3.94E+04 | 2.45E+08 | 8.66E-05 | 2.55E-07 | 1.34E-02 | 5.91E-03 |
| *Paralomis multispina* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.60E+02 | 2.68E+03 | 3.42E+05 | 1.68E+10 | 1.15E-01 | 1.36E-01 | 2.43E-01 | 7.31E-01 |
| | All depths | 1.60E+02 | 2.68E+03 | 3.42E+05 | 1.68E+10 | 4.73E-02 | 5.88E-02 | 1.00E-01 | 3.14E-01 |
| *Paralomis* species | 200-600 | | | | | | | | |
| | 600-1,200 | 5.55E-02 | 3.08E-03 | 5.55E+03 | 3.08E+07 | 4.30E-05 | 1.44E-07 | 4.30E-03 | 1.44E-03 |
| | All depths | 5.55E-02 | 3.08E-03 | 5.55E+03 | 3.08E+07 | 1.77E-05 | 5.95E-08 | 1.77E-03 | 5.95E-04 |
| *Paralomis verrilli* | 200-600 | | | | | | | | |
| | 600-1,200 | 7.77E+01 | 1.05E+03 | 9.69E+04 | 1.58E+09 | 3.63E-02 | 2.28E-02 | 6.48E-02 | 6.42E-02 |
| | All depths | 7.77E+01 | 1.05E+03 | 9.69E+04 | 1.58E+09 | 1.49E-02 | 9.60E-03 | 2.66E-02 | 2.71E-02 |
| *Pasiphaea pacifica* | 200-600 | 3.00E+01 | 1.26E+02 | 1.14E+07 | 2.02E+13 | 1.53E-02 | 4.29E-03 | 5.85E+00 | 6.79E+02 |
| | 600-1,200 | 3.33E+00 | 9.97E+00 | 1.05E+06 | 9.74E+11 | 2.44E-03 | 4.22E-04 | 7.67E-01 | 4.13E+01 |
| | All depths | 3.33E+01 | 1.36E+02 | 1.25E+07 | 2.12E+13 | 1.00E-02 | 2.72E-03 | 3.75E+00 | 4.21E+02 |
| *Pasiphaea tarda* | 200-600 | | | | | | | | |
| | 600-1,200 | 9.33E-01 | 1.06E-01 | 7.05E+04 | 6.50E+08 | 6.68E-04 | 5.22E-06 | 5.07E-02 | 2.85E-02 |
| | All depths | 9.33E-01 | 1.06E-01 | 7.05E+04 | 6.50E+08 | 2.76E-04 | 2.25E-06 | 2.09E-02 | 1.23E-02 |
| Pennatulacea | 200-600 | 5.40E+00 | 3.54E+00 | 6.79E+04 | 3.61E+09 | 2.21E-04 | 4.86E-06 | 3.01E-02 | 9.05E-02 |
| | 600-1,200 | 6.75E-01 | 2.79E-01 | | | | | | |
| | All depths | 6.07E+00 | 3.82E+00 | 6.79E+04 | 3.61E+09 | 1.25E-04 | 2.76E-06 | 1.71E-02 | 5.14E-02 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Percis japonicus* | 200-600 | 4.61E-01 | 2.13E-01 | 4.81E+03 | 2.31E+07 | 2.56E-04 | 7.29E-06 | 2.67E-03 | 7.91E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.61E-01 | 2.13E-01 | 4.81E+03 | 2.31E+07 | 1.50E-04 | 4.28E-06 | 1.57E-03 | 4.65E-04 |
| *Periphylla periphylla* | 200-600 | 2.50E-01 | 2.79E-02 | 1.74E+04 | 1.08E+08 | 1.28E-04 | 8.25E-07 | 8.88E-03 | 3.17E-03 |
| | 600-1,200 | 6.18E+00 | 1.09E+00 | 3.70E+05 | 3.49E+09 | 4.29E-03 | 3.97E-05 | 2.55E-01 | 1.14E-01 |
| | All depths | 6.43E+00 | 1.12E+00 | 3.88E+05 | 3.60E+09 | 1.84E-03 | 2.09E-05 | 1.11E-01 | 6.32E-02 |
| *Phacellophora camtschatica* | 200-600 | 1.11E+01 | 3.68E+01 | 2.79E+04 | 1.47E+08 | 5.62E-03 | 1.01E-03 | 1.42E-02 | 4.72E-03 |
| | 600-1,200 | 4.87E+00 | 1.71E+01 | 1.44E+04 | 7.19E+07 | 4.18E-03 | 1.05E-03 | 1.11E-02 | 3.49E-03 |
| | All depths | 1.60E+01 | 5.39E+01 | 4.23E+04 | 2.19E+08 | 5.02E-03 | 1.02E-03 | 1.29E-02 | 4.19E-03 |
| *Pleurogrammus monopterygius* | 200-600 | 3.82E+01 | 5.46E+02 | 2.58E+04 | 2.19E+08 | 1.79E-02 | 1.40E-02 | 1.21E-02 | 5.76E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 3.82E+01 | 5.46E+02 | 2.58E+04 | 2.19E+08 | 1.05E-02 | 8.24E-03 | 7.09E-03 | 3.41E-03 |
| *Plicatellopsis amphispicula* | 200-600 | 3.43E+00 | 1.18E+01 | | | | | | |
| | 600-1,200 | | | | | | | | |
| | All depths | 3.43E+00 | 1.18E+01 | | | | | | |
| *Plumarella* species | 200-600 | 5.98E+00 | 1.17E+01 | | | | | | |
| | 600-1,200 | 1.60E-01 | 2.55E-02 | | | | | | |
| | All depths | 6.14E+00 | 1.17E+01 | | | | | | |
| *Plumarella* species 1 | 200-600 | | | | | | | | |
| | 600-1,200 | 3.93E-01 | 1.55E-01 | | | | | | |
| | All depths | 3.93E-01 | 1.55E-01 | | | | | | |
| Polychaeta | 200-600 | 4.91E-01 | 2.32E-01 | 1.26E+05 | 1.48E+10 | 2.50E-04 | 6.72E-06 | 6.43E-02 | 4.28E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.91E-01 | 2.32E-01 | 1.26E+05 | 1.48E+10 | 1.47E-04 | 3.95E-06 | 3.78E-02 | 2.52E-01 |
| Polychaeta tube worms | 200-600 | 1.07E+01 | 5.60E+01 | | | | | | |
| | 600-1,200 | 7.31E+02 | 5.34E+05 | | | | | | |
| | All depths | 7.42E+02 | 5.34E+05 | | | | | | |
| Polychaeta tubes | 200-600 | | | | | | | | |
| | 600-1,200 | 2.59E+03 | 2.84E+06 | | | | | | |
| | All depths | 2.59E+03 | 2.84E+06 | | | | | | |
| Porifera | 200-600 | 4.87E+03 | 7.83E+06 | | | | | | |
| | 600-1,200 | 4.17E+02 | 1.60E+04 | | | | | | |
| | All depths | 5.28E+03 | 7.84E+06 | | | | | | |
| *Poroclinus rothrocki* | 200-600 | 4.41E+00 | 1.95E+01 | 6.27E+04 | 3.93E+09 | 2.56E-03 | 7.29E-04 | 3.64E-02 | 1.47E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.41E+00 | 1.95E+01 | 6.27E+04 | 3.93E+09 | 1.50E-03 | 4.28E-04 | 2.14E-02 | 8.64E-02 |
| *Primnoa* species | 200-600 | | | | | | | | |
| | 600-1,200 | 9.70E+00 | 9.41E+01 | | | | | | |
| | All depths | 9.70E+00 | 9.41E+01 | | | | | | |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Pseudarchaster parelii* | 200-600 | 4.37E+00 | 4.50E+00 | 7.91E+04 | 7.51E+08 | 2.19E-03 | 1.24E-04 | 4.06E-02 | 2.32E-02 |
| | 600-1,200 | 1.26E+01 | 3.73E+01 | 5.43E+05 | 6.78E+10 | 9.47E-03 | 2.02E-03 | 4.06E-01 | 3.55E+00 |
| | All depths | 1.70E+01 | 4.18E+01 | 6.22E+05 | 6.86E+10 | 5.20E-03 | 9.11E-04 | 1.91E-01 | 1.50E+00 |
| *Psolus* species | 200-600 | 3.10E-01 | 5.48E-02 | 3.75E+04 | 7.90E+08 | 1.49E-04 | 1.36E-06 | 1.80E-02 | 1.97E-02 |
| | 600-1,200 | 3.39E+01 | 2.42E+02 | 1.29E+06 | 3.44E+11 | 2.59E-02 | 2.03E-02 | 9.93E-01 | 3.10E+01 |
| | All depths | 3.42E+01 | 2.42E+02 | 1.33E+06 | 3.45E+11 | 1.08E-02 | 8.48E-03 | 4.20E-01 | 1.29E+01 |
| *Psychrolutes phrictus* | 200-600 | | | | | | | | |
| | 600-1,200 | 1.03E+03 | 5.76E+04 | 4.88E+05 | 7.45E+09 | 7.10E-01 | 3.15E+00 | 3.26E-01 | 3.49E-01 |
| | All depths | 1.03E+03 | 5.76E+04 | 4.88E+05 | 7.45E+09 | 2.93E-01 | 1.41E+00 | 1.35E-01 | 1.69E-01 |
| *Pteraster jordani* | 200-600 | 3.14E+00 | 3.26E+00 | 7.07E+04 | 1.55E+09 | 1.60E-03 | 1.01E-04 | 3.61E-02 | 4.83E-02 |
| | 600-1,200 | 6.30E+00 | 2.18E+01 | 1.54E+05 | 1.27E+10 | 4.65E-03 | 9.67E-04 | 1.13E-01 | 5.73E-01 |
| | All depths | 9.44E+00 | 2.50E+01 | 2.24E+05 | 1.43E+10 | 2.86E-03 | 4.57E-04 | 6.79E-02 | 2.64E-01 |
| *Pteraster militaris* | 200-600 | 8.12E+00 | 6.59E+01 | 9.19E+04 | 8.45E+09 | 3.79E-03 | 1.60E-03 | 4.29E-02 | 2.05E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 8.12E+00 | 6.59E+01 | 9.19E+04 | 8.45E+09 | 2.23E-03 | 9.37E-04 | 2.52E-02 | 1.20E-01 |
| *Pteraster obscurus* | 200-600 | 2.01E-01 | 4.05E-02 | 5.03E+03 | 2.53E+07 | 9.49E-05 | 1.00E-06 | 2.37E-03 | 6.25E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.01E-01 | 4.05E-02 | 5.03E+03 | 2.53E+07 | 5.57E-05 | 5.87E-07 | 1.39E-03 | 3.67E-04 |
| *Pteraster* species | 200-600 | 3.57E+01 | 1.56E+02 | 4.61E+05 | 1.95E+10 | 1.79E-02 | 4.59E-03 | 2.32E-01 | 5.49E-01 |
| | 600-1,200 | 4.53E+01 | 1.15E+02 | 7.24E+05 | 4.40E+10 | 3.10E-02 | 9.16E-03 | 5.05E-01 | 2.96E+00 |
| | All depths | 8.11E+01 | 2.72E+02 | 1.19E+06 | 6.35E+10 | 2.33E-02 | 6.48E-03 | 3.45E-01 | 1.55E+00 |
| Pycnogonida | 200-600 | 5.37E-02 | 1.04E-03 | 2.24E+04 | 1.66E+08 | 2.74E-05 | 3.19E-08 | 1.14E-02 | 5.13E-03 |
| | 600-1,200 | 2.06E-01 | 4.74E-03 | 1.03E+05 | 8.75E+08 | 1.46E-04 | 2.31E-07 | 7.33E-02 | 4.46E-02 |
| | All depths | 2.60E-01 | 5.78E-03 | 1.25E+05 | 1.04E+09 | 7.63E-05 | 1.17E-07 | 3.70E-02 | 2.22E-02 |
| *Pyrulofusus deformis* | 200-600 | 6.05E+01 | 5.84E+02 | 2.99E+05 | 1.20E+10 | 3.21E-02 | 1.89E-02 | 1.61E-01 | 3.92E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 6.05E+01 | 5.84E+02 | 2.99E+05 | 1.20E+10 | 1.89E-02 | 1.13E-02 | 9.46E-02 | 2.36E-01 |
| *Pyrulofusus melonis* | 200-600 | 8.05E+01 | 1.82E+02 | 7.61E+05 | 1.38E+10 | 3.97E-02 | 6.91E-03 | 3.79E-01 | 6.30E-01 |
| | 600-1,200 | 4.25E+00 | 1.80E+01 | 3.87E+04 | 1.50E+09 | 3.13E-03 | 7.62E-04 | 2.85E-02 | 6.32E-02 |
| | All depths | 8.48E+01 | 2.00E+02 | 8.00E+05 | 1.53E+10 | 2.46E-02 | 4.68E-03 | 2.35E-01 | 4.25E-01 |
| *Reinhardtius hippoglossoides* | 200-600 | 1.25E+04 | 2.86E+06 | 1.02E+07 | 6.78E+12 | 6.94E+00 | 1.43E+02 | 5.77E+00 | 3.04E+02 |
| | 600-1,200 | 5.39E+03 | 6.57E+05 | 1.44E+06 | 5.73E+10 | 4.04E+00 | 4.25E+01 | 1.07E+00 | 3.58E+00 |
| | All depths | 1.79E+04 | 3.52E+06 | 1.17E+07 | 6.84E+12 | 5.74E+00 | 1.03E+02 | 3.83E+00 | 1.85E+02 |
| *Rhinoliparis attenuatus* | 200-600 | | | | | | | | |
| | 600-1,200 | 3.61E-01 | 2.17E-02 | 4.38E+04 | 4.01E+08 | 2.32E-04 | 9.00E-07 | 2.67E-02 | 1.41E-02 |
| | All depths | 3.61E-01 | 2.17E-02 | 4.38E+04 | 4.01E+08 | 9.58E-05 | 3.82E-07 | 1.10E-02 | 5.97E-03 |
| *Rhinoliparis* species | 200-600 | 1.89E-01 | 1.93E-02 | 2.48E+04 | 3.08E+08 | 9.65E-05 | 5.54E-07 | 1.27E-02 | 8.81E-03 |
| | 600-1,200 | 1.72E+00 | 5.31E-01 | 1.62E+05 | 4.36E+09 | 1.20E-03 | 2.88E-05 | 1.13E-01 | 2.34E-01 |
| | All depths | 1.91E+00 | 5.50E-01 | 1.87E+05 | 4.66E+09 | 5.53E-04 | 1.24E-05 | 5.41E-02 | 1.04E-01 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Rossia pacifica* | 200-600 | 4.15E+01 | 9.26E+01 | 4.47E+05 | 8.12E+09 | 2.42E-02 | 4.96E-03 | 2.41E-01 | 3.20E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.15E+01 | 9.26E+01 | 4.47E+05 | 8.12E+09 | 1.42E-02 | 3.05E-03 | 1.42E-01 | 2.01E-01 |
| *Sasakiopus salebrosus* | 200-600 | 1.85E+01 | 1.22E+01 | 2.22E+05 | 1.53E+09 | 9.73E-03 | 4.86E-04 | 1.17E-01 | 6.15E-02 |
| | 600-1,200 | 9.99E+00 | 7.49E+00 | 1.06E+05 | 6.20E+08 | 7.42E-03 | 4.27E-04 | 7.90E-02 | 3.72E-02 |
| | All depths | 2.85E+01 | 1.96E+01 | 3.27E+05 | 2.15E+09 | 8.78E-03 | 4.60E-04 | 1.01E-01 | 5.16E-02 |
| *Scalpellum cornutum* | 200-600 | 2.88E-02 | 8.27E-04 | 1.44E+04 | 2.07E+08 | 1.43E-05 | 2.28E-08 | 7.17E-03 | 5.70E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 2.88E-02 | 8.27E-04 | 1.44E+04 | 2.07E+08 | 8.42E-06 | 1.34E-08 | 4.21E-03 | 3.35E-03 |
| Scyphozoa | 200-600 | 3.14E+01 | 8.10E+01 | 1.51E+05 | 2.17E+09 | 1.32E-02 | 2.27E-03 | 7.39E-02 | 5.98E-02 |
| | 600-1,200 | 7.51E+01 | 4.26E+02 | 3.14E+05 | 3.24E+10 | 1.89E-02 | 3.22E-03 | 1.75E-01 | 6.08E-01 |
| | All depths | 1.07E+02 | 5.07E+02 | 4.65E+05 | 3.46E+10 | 1.54E-02 | 2.62E-03 | 1.12E-01 | 2.67E-01 |
| *Sebastes aleutianus* | 200-600 | 4.15E+02 | 1.69E+04 | 3.71E+05 | 1.34E+10 | 2.02E-01 | 4.80E-01 | 1.79E-01 | 3.95E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.15E+02 | 1.69E+04 | 3.71E+05 | 1.34E+10 | 1.18E-01 | 2.91E-01 | 1.05E-01 | 2.39E-01 |
| *Sebastes alutus* | 200-600 | 2.31E+05 | 5.66E+09 | 3.10E+08 | 1.18E+16 | 1.16E+02 | 2.08E+05 | 1.56E+02 | 4.25E+05 |
| | 600-1,200 | 2.96E+00 | 8.74E+00 | 4.31E+03 | 1.86E+07 | 2.18E-03 | 3.69E-04 | 3.17E-03 | 7.85E-04 |
| | All depths | 2.31E+05 | 5.66E+09 | 3.10E+08 | 1.18E+16 | 6.81E+01 | 1.25E+05 | 9.17E+01 | 2.54E+05 |
| *Sebastes babcocki* | 200-600 | 4.11E+00 | 1.69E+01 | 1.53E+04 | 2.35E+08 | 1.92E-03 | 4.08E-04 | 7.15E-03 | 5.68E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.11E+00 | 1.69E+01 | 1.53E+04 | 2.35E+08 | 1.13E-03 | 2.40E-04 | 4.20E-03 | 3.34E-03 |
| *Sebastes borealis* | 200-600 | 9.27E+03 | 2.79E+07 | 1.68E+06 | 3.77E+11 | 4.76E+00 | 7.73E+02 | 8.76E-01 | 1.14E+01 |
| | 600-1,200 | 1.26E+01 | 1.59E+02 | 4.79E+03 | 2.30E+07 | 9.28E-03 | 6.71E-03 | 3.53E-03 | 9.70E-04 |
| | All depths | 9.28E+03 | 2.79E+07 | 1.68E+06 | 3.77E+11 | 2.80E+00 | 4.58E+02 | 5.16E-01 | 6.84E+00 |
| *Sebastes melanostictus* | 200-600 | 1.18E+03 | 6.34E+05 | 1.93E+06 | 2.29E+12 | 5.70E-01 | 1.53E+01 | 9.17E-01 | 5.53E+01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.18E+03 | 6.34E+05 | 1.93E+06 | 2.29E+12 | 3.34E-01 | 9.01E+00 | 5.39E-01 | 3.26E+01 |
| *Sebastes polyspinis* | 200-600 | 3.26E+00 | 1.06E+01 | 4.70E+03 | 2.21E+07 | 1.66E-03 | 3.07E-04 | 2.40E-03 | 6.38E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 3.26E+00 | 1.06E+01 | 4.70E+03 | 2.21E+07 | 9.77E-04 | 1.80E-04 | 1.41E-03 | 3.75E-04 |
| *Sebastes variabilis* | 200-600 | 4.02E+01 | 6.00E+02 | 2.86E+04 | 2.82E+08 | 1.88E-02 | 1.56E-02 | 1.34E-02 | 7.44E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 4.02E+01 | 6.00E+02 | 2.86E+04 | 2.82E+08 | 1.11E-02 | 9.19E-03 | 7.87E-03 | 4.40E-03 |
| *Sebastolobus alascanus* | 200-600 | 2.06E+04 | 8.81E+06 | 4.24E+07 | 5.64E+13 | 1.09E+01 | 3.45E+02 | 2.23E+01 | 1.78E+03 |
| | 600-1,200 | 8.93E+03 | 1.12E+06 | 6.68E+06 | 7.98E+11 | 6.56E+00 | 7.98E+01 | 4.87E+00 | 5.28E+01 |
| | All depths | 2.96E+04 | 9.93E+06 | 4.91E+07 | 5.72E+13 | 9.09E+00 | 2.39E+02 | 1.51E+01 | 1.13E+03 |
| *Sebastolobus macrochir* | 200-600 | | | | | | | | |
| | 600-1,200 | 7.60E+00 | 3.07E+01 | 1.38E+04 | 1.09E+08 | 5.19E-03 | 1.12E-03 | 9.48E-03 | 4.00E-03 |
| | All depths | 7.60E+00 | 3.07E+01 | 1.38E+04 | 1.09E+08 | 2.14E-03 | 4.64E-04 | 3.91E-03 | 1.66E-03 |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| Sipuncula | 200-600 | | | | | | | | |
| | 600-1,200 | 2.73E-02 | 7.48E-04 | 1.37E+04 | 1.87E+08 | 1.91E-05 | 2.83E-08 | 9.53E-03 | 7.08E-03 |
| | All depths | 2.73E-02 | 7.48E-04 | 1.37E+04 | 1.87E+08 | 7.86E-06 | 1.17E-08 | 3.93E-03 | 2.92E-03 |
| *Solaster* species | 200-600 | 9.68E+01 | 1.72E+03 | 6.04E+05 | 6.74E+10 | 4.97E-02 | 4.95E-02 | 3.07E-01 | 1.93E+00 |
| | 600-1,200 | 1.95E+01 | 4.79E+01 | 1.52E+05 | 2.59E+09 | 1.40E-02 | 1.89E-03 | 1.11E-01 | 1.07E-01 |
| | All depths | 1.16E+02 | 1.77E+03 | 7.56E+05 | 7.00E+10 | 3.50E-02 | 3.01E-02 | 2.26E-01 | 1.18E+00 |
| *Solaster* species A | 200-600 | 8.27E-01 | 6.83E-01 | 8.61E+03 | 7.42E+07 | 4.80E-04 | 2.56E-05 | 5.00E-03 | 2.78E-03 |
| | 600-1,200 | | | | | | | | |
| | All depths | 8.27E-01 | 6.83E-01 | 8.61E+03 | 7.42E+07 | 2.82E-04 | 1.50E-05 | 2.94E-03 | 1.63E-03 |
| *Somniosus pacificus* | 200-600 | 1.26E+03 | 1.34E+05 | 9.70E+04 | 1.08E+09 | 7.05E-01 | 4.60E+00 | 5.28E-02 | 3.39E-02 |
| | 600-1,200 | 4.16E+01 | 1.73E+03 | 4.79E+03 | 2.30E+07 | 3.06E-02 | 7.31E-02 | 3.53E-03 | 9.70E-04 |
| | All depths | 1.31E+03 | 1.36E+05 | 1.02E+05 | 1.10E+09 | 4.27E-01 | 2.83E+00 | 3.25E-02 | 2.08E-02 |
| *Staurocalyptus* species | 200-600 | | | | | | | | |
| | 600-1,200 | 4.36E+02 | 1.81E+05 | | | | | | |
| | All depths | 4.36E+02 | 1.81E+05 | | | | | | |
| *Stenobrachius leucopsarus* | 200-600 | 4.49E+00 | 1.45E+00 | 6.14E+05 | 2.50E+10 | 2.56E-03 | 5.30E-05 | 3.59E-01 | 1.07E+00 |
| | 600-1,200 | 1.08E+01 | 5.39E+00 | 1.92E+06 | 2.16E+11 | 7.56E-03 | 2.08E-04 | 1.32E+00 | 7.70E+00 |
| | All depths | 1.53E+01 | 6.83E+00 | 2.54E+06 | 2.41E+11 | 4.63E-03 | 1.22E-04 | 7.55E-01 | 4.00E+00 |
| *Stenobrachius nannochir* | 200-600 | 5.88E-01 | 1.73E-01 | 4.73E+04 | 1.33E+09 | 3.51E-04 | 6.80E-06 | 2.80E-02 | 5.04E-02 |
| | 600-1,200 | 5.38E+00 | 1.48E+00 | 7.41E+05 | 3.04E+10 | 3.97E-03 | 8.99E-05 | 5.45E-01 | 1.57E+00 |
| | All depths | 5.97E+00 | 1.65E+00 | 7.89E+05 | 3.17E+10 | 1.85E-03 | 4.40E-05 | 2.41E-01 | 7.40E-01 |
| *Stenobrachius* species | 200-600 | 3.06E+00 | 4.76E-01 | 3.86E+05 | 7.71E+09 | 1.58E-03 | 1.82E-05 | 2.03E-01 | 2.92E-01 |
| | 600-1,200 | 1.83E+01 | 1.25E+01 | 2.66E+06 | 4.67E+11 | 1.23E-02 | 3.87E-04 | 1.76E+00 | 1.33E+01 |
| | All depths | 2.14E+01 | 1.30E+01 | 3.04E+06 | 4.75E+11 | 6.00E-03 | 1.97E-04 | 8.45E-01 | 6.23E+00 |
| *Stomphia coccinea* | 200-600 | 3.88E+01 | 3.47E+02 | 7.53E+05 | 1.55E+11 | 1.83E-02 | 9.64E-03 | 3.55E-01 | 4.18E+00 |
| | 600-1,200 | 2.74E-01 | 3.26E-02 | 1.36E+04 | 6.17E+07 | 1.98E-04 | 1.33E-06 | 9.69E-03 | 2.38E-03 |
| | All depths | 3.90E+01 | 3.47E+02 | 7.67E+05 | 1.55E+11 | 1.08E-02 | 5.72E-03 | 2.12E-01 | 2.48E+00 |
| *Strongylocentrotus droebachiensis* | 200-600 | 6.35E+01 | 8.72E+02 | 3.99E+06 | 7.17E+12 | 3.11E-02 | 2.45E-02 | 1.99E+00 | 2.05E+02 |
| | 600-1,200 | | | | | | | | |
| | All depths | 6.35E+01 | 8.72E+02 | 3.99E+06 | 7.17E+12 | 1.83E-02 | 1.46E-02 | 1.17E+00 | 1.21E+02 |
| *Strongylocentrotus* species | 200-600 | 1.59E+02 | 1.73E+04 | 2.37E+06 | 3.91E+12 | 7.57E-02 | 4.32E-01 | 1.14E+00 | 9.68E+01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.59E+02 | 1.73E+04 | 2.37E+06 | 3.91E+12 | 4.45E-02 | 2.54E-01 | 6.68E-01 | 5.70E+01 |
| *Swiftia pacifica* | 200-600 | 5.10E-02 | 2.60E-03 | | | | | | |
| | 600-1,200 | | | | | | | | |
| | All depths | 5.10E-02 | 2.60E-03 | | | | | | |
| *Swiftia* species | 200-600 | | | | | | | | |
| | 600-1,200 | 3.35E-02 | 1.12E-03 | | | | | | |
| | All depths | 3.35E-02 | 1.12E-03 | | | | | | |

**Table 9.** - - Continued.

| Species | Stratum | Biomass | | Population | | CPUE | | CPUE | |
|---|---|---|---|---|---|---|---|---|---|
| | (m) | (t) | Variance | Number | Variance | kg/ha | Variance | no./ha | Variance |
| *Synallactes* species | 200-600 | 1.65E+01 | 1.29E+02 | 2.01E+05 | 1.89E+10 | 8.04E-03 | 3.38E-03 | 9.79E-02 | 4.83E-01 |
| | 600-1,200 | 2.43E+02 | 5.90E+04 | 6.84E+06 | 4.68E+13 | 1.69E-01 | 2.23E+00 | 4.76E+00 | 1.77E+03 |
| | All depths | 2.59E+02 | 5.92E+04 | 7.04E+06 | 4.68E+13 | 7.45E-02 | 9.21E-01 | 2.02E+00 | 7.29E+02 |
| *Tactostoma macropus* | 200-600 | | | | | | | | |
| | 600-1,200 | 9.16E-01 | 8.39E-01 | 4.36E+03 | 1.90E+07 | 6.07E-04 | 2.87E-05 | 2.89E-03 | 6.51E-04 |
| | All depths | 9.16E-01 | 8.39E-01 | 4.36E+03 | 1.90E+07 | 2.50E-04 | 1.19E-05 | 1.19E-03 | 2.69E-04 |
| *Thaleichthys pacificus* | 200-600 | 8.46E+01 | 1.01E+03 | 2.27E+06 | 6.15E+11 | 4.05E-02 | 2.90E-02 | 1.08E+00 | 1.83E+01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 8.46E+01 | 1.01E+03 | 2.27E+06 | 6.15E+11 | 2.38E-02 | 1.74E-02 | 6.35E-01 | 1.10E+01 |
| Thaliacea | 200-600 | 1.10E-02 | 1.20E-04 | 2.74E+03 | 7.52E+06 | 9.29E-06 | 9.57E-09 | 2.32E-03 | 5.98E-04 |
| | 600-1,200 | 7.58E-02 | 3.77E-03 | 1.89E+04 | 2.35E+08 | 5.39E-05 | 1.38E-07 | 1.35E-02 | 8.62E-03 |
| | All depths | 8.68E-02 | 3.89E-03 | 2.17E+04 | 2.43E+08 | 2.77E-05 | 6.26E-08 | 6.92E-03 | 3.91E-03 |
| *Theragra chalcogramma* | 200-600 | 3.82E+04 | 4.23E+07 | 3.77E+07 | 4.37E+13 | 1.97E+01 | 1.47E+03 | 1.97E+01 | 1.71E+03 |
| | 600-1,200 | 1.82E+02 | 7.23E+03 | 5.74E+05 | 6.75E+10 | 1.46E-01 | 4.13E-01 | 4.61E-01 | 3.99E+00 |
| | All depths | 3.84E+04 | 4.23E+07 | 3.83E+07 | 4.37E+13 | 1.16E+01 | 9.52E+02 | 1.17E+01 | 1.09E+03 |
| *Triglops scepticus* | 200-600 | 6.20E+01 | 1.87E+03 | 1.05E+06 | 3.99E+11 | 3.17E-02 | 4.65E-02 | 5.50E-01 | 1.02E+01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 6.20E+01 | 1.87E+03 | 1.05E+06 | 3.99E+11 | 1.86E-02 | 2.75E-02 | 3.23E-01 | 6.06E+00 |
| *Tritonia diomedea* | 200-600 | 4.18E+00 | 1.18E+01 | 6.41E+05 | 3.23E+11 | 2.00E-03 | 2.91E-04 | 3.05E-01 | 7.96E+00 |
| | 600-1,200 | 9.60E+00 | 9.22E+01 | 1.62E+06 | 2.64E+12 | 6.68E-03 | 3.48E-03 | 1.13E+00 | 9.96E+01 |
| | All depths | 1.38E+01 | 1.04E+02 | 2.27E+06 | 2.96E+12 | 3.93E-03 | 1.60E-03 | 6.46E-01 | 4.56E+01 |
| Virgulariidae | 200-600 | 7.40E+02 | 2.39E+05 | 2.37E+05 | 2.69E+10 | 8.11E-03 | 5.23E-03 | 1.21E-01 | 7.91E-01 |
| | 600-1,200 | 1.97E+02 | 3.85E+04 | 3.51E+07 | 1.23E+15 | 1.33E-01 | 1.37E+00 | 2.37E+01 | 4.37E+04 |
| | All depths | 9.36E+02 | 2.77E+05 | 3.53E+07 | 1.23E+15 | 6.06E-02 | 5.79E-01 | 1.00E+01 | 1.84E+04 |
| *Volutopsius filosus* | 200-600 | 1.19E-01 | 1.41E-02 | 4.94E+03 | 2.44E+07 | 5.59E-05 | 3.47E-07 | 2.33E-03 | 6.03E-04 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.19E-01 | 1.41E-02 | 4.94E+03 | 2.44E+07 | 3.28E-05 | 2.04E-07 | 1.37E-03 | 3.54E-04 |
| *Yoldia* species | 200-600 | 1.77E-02 | 1.46E-04 | 2.20E+04 | 2.34E+08 | 9.80E-06 | 5.29E-09 | 1.22E-02 | 8.47E-03 |
| | 600-1,200 | 3.42E-02 | 6.85E-04 | 2.32E+04 | 3.53E+08 | 2.52E-05 | 2.79E-08 | 1.69E-02 | 1.43E-02 |
| | All depths | 5.19E-02 | 8.30E-04 | 4.51E+04 | 5.87E+08 | 1.61E-05 | 1.46E-08 | 1.41E-02 | 1.08E-02 |
| *Zaprora silenus* | 200-600 | 1.05E+03 | 6.79E+05 | 1.92E+05 | 1.60E+10 | 5.12E-01 | 1.64E+01 | 9.62E-02 | 3.92E-01 |
| | 600-1,200 | | | | | | | | |
| | All depths | 1.05E+03 | 6.79E+05 | 1.92E+05 | 1.60E+10 | 3.01E-01 | 9.69E+00 | 5.65E-02 | 2.32E-01 |
| *Zesticelus profundorum* | 200-600 | 1.85E-02 | 1.72E-04 | 9.26E+03 | 4.30E+07 | 9.45E-06 | 4.93E-09 | 4.73E-03 | 1.23E-03 |
| | 600-1,200 | 1.93E-01 | 3.83E-03 | 9.21E+04 | 9.40E+08 | 1.31E-04 | 1.82E-07 | 6.09E-02 | 3.61E-02 |
| | All depths | 2.11E-01 | 4.00E-03 | 1.01E+05 | 9.83E+08 | 5.96E-05 | 8.10E-08 | 2.79E-02 | 1.63E-02 |
| *Zoroaster evermanni* | 200-600 | 1.29E+01 | 9.92E+01 | 1.14E+05 | 7.74E+09 | 8.04E-03 | 3.93E-03 | 7.07E-02 | 3.05E-01 |
| | 600-1,200 | 8.35E+02 | 5.66E+04 | 8.09E+06 | 3.74E+12 | 5.91E-01 | 2.88E+00 | 5.61E+00 | 2.38E+02 |
| | All depths | 8.48E+02 | 5.67E+04 | 8.20E+06 | 3.75E+12 | 2.49E-01 | 1.26E+00 | 2.36E+00 | 1.05E+02 |

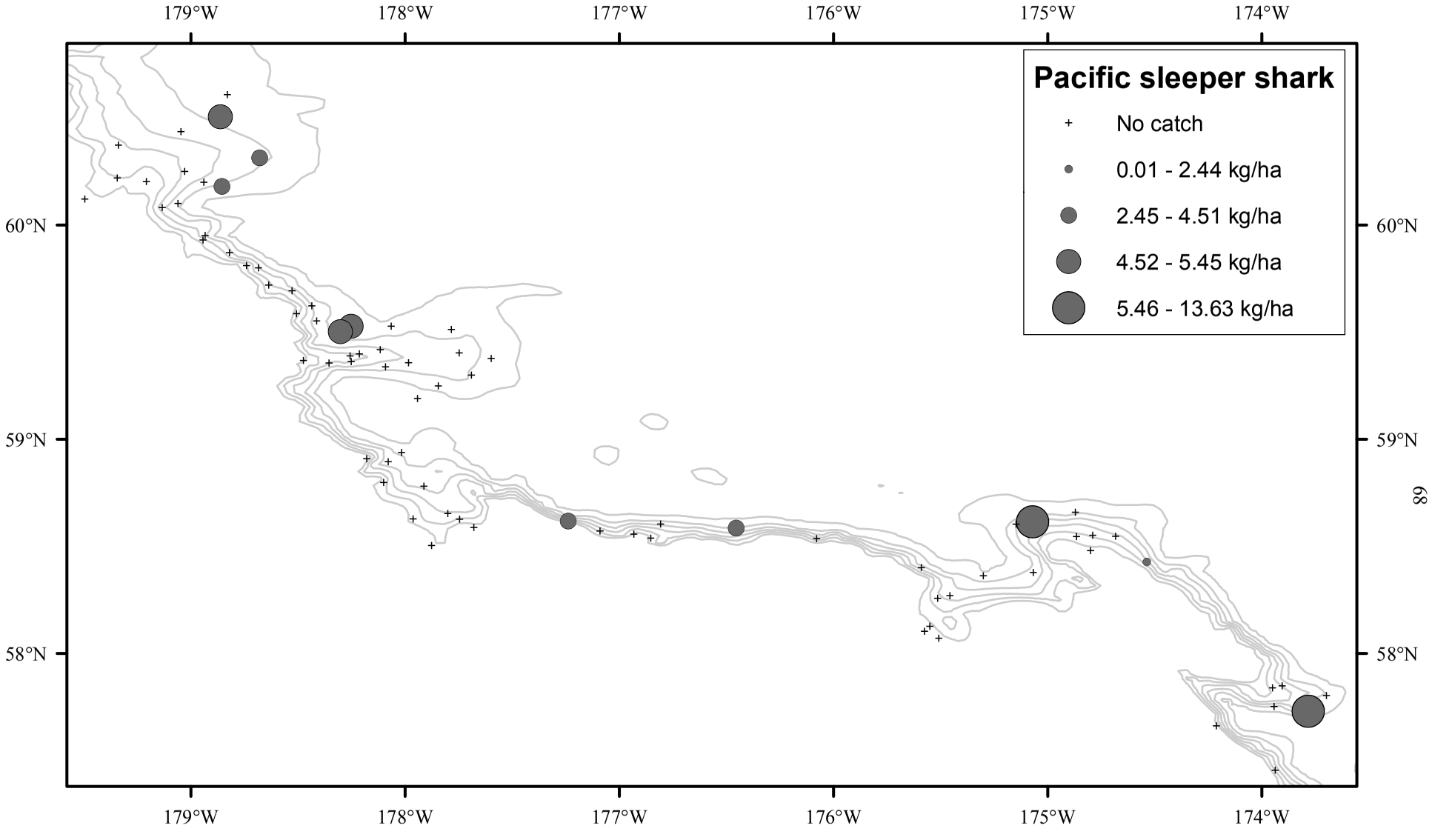


**Figure 4.** - -Distribution and relative abundance of Pacific sleeper shark from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

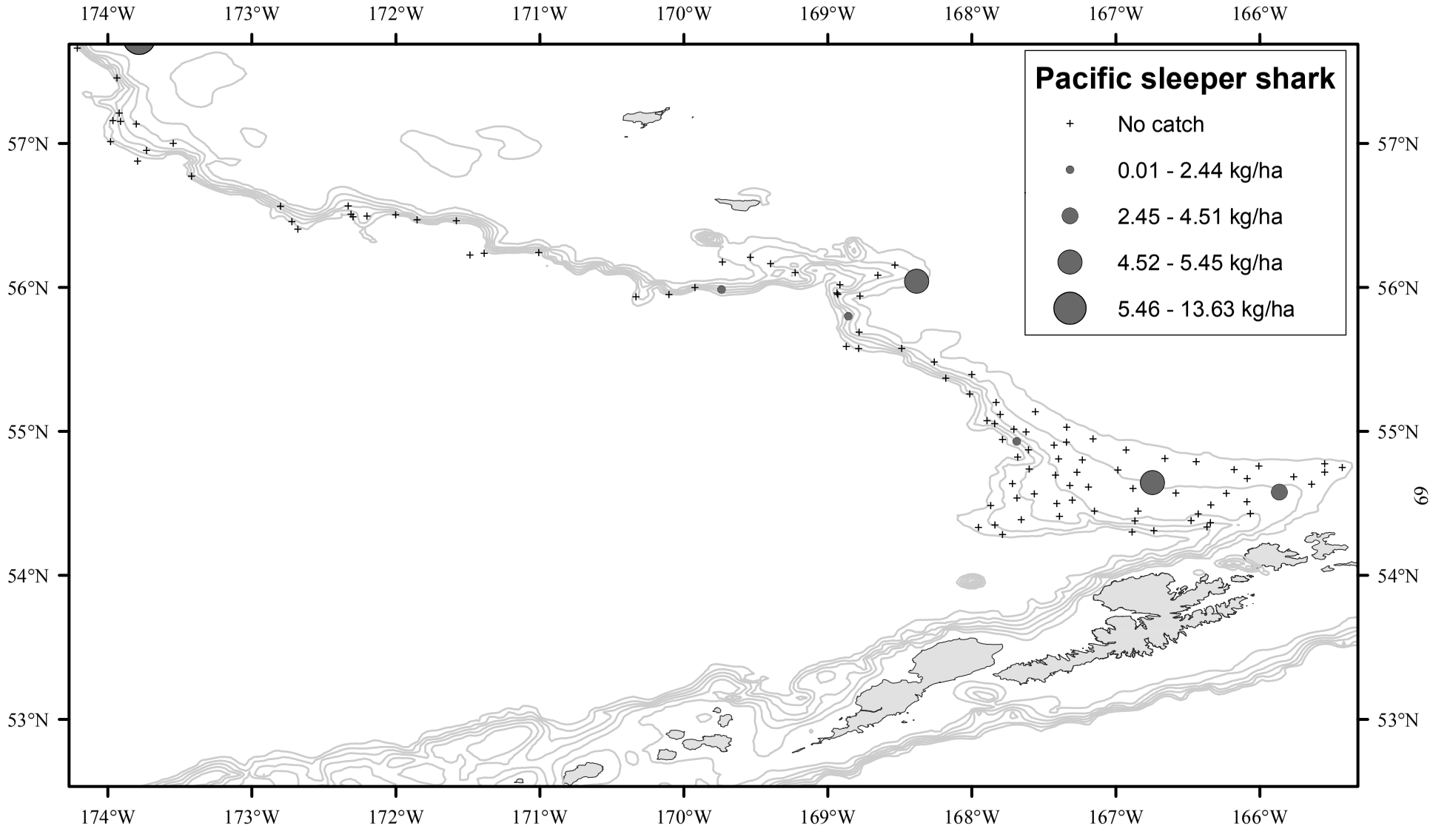


**Figure 4.** - - Continued.

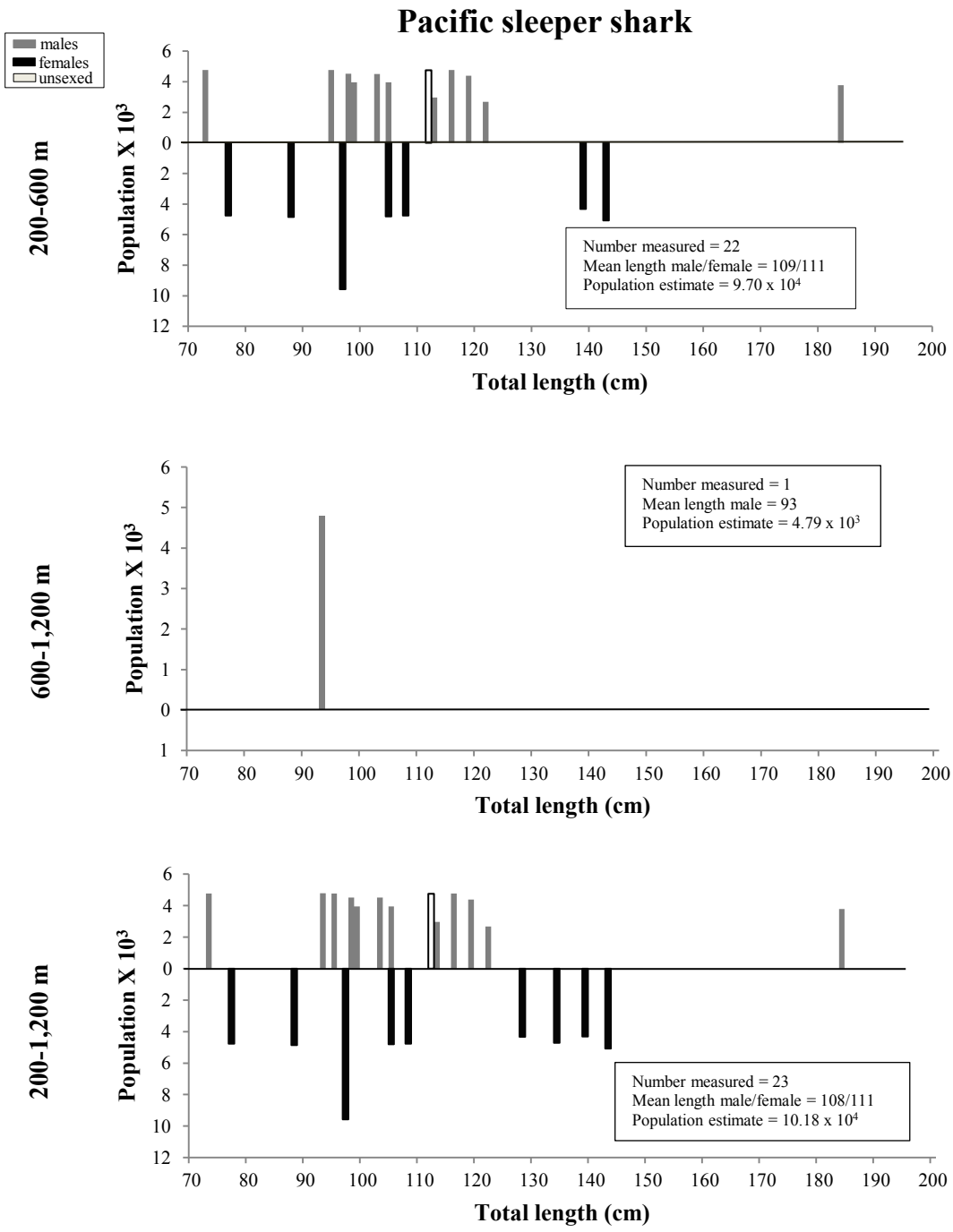


**Figure 5.** - - Size composition of the estimated Pacific sleeper shark population from the 2012 EBSS survey for all subareas by depth.

**Table 10. - -** Abundance estimates by subarea and depth stratum for Pacific sleeper shark (*Somniosus pacificus* ) from the 2012 EBSS survey.

***Somniosus pacificus*** **Pacific sleeper shark**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 9.51E+01 | 4.72E+03 | 9.04E+03 | 2.22E+07 | 2.37E-01 | 1.18E-02 |
| | 400-600 | 6.14E+01 | 4.39E+03 | 3.77E+03 | 1.92E+07 | 1.51E-01 | 1.08E-02 |
| | 600-800 | 4.16E+01 | 4.79E+03 | 1.73E+03 | 2.30E+07 | 2.39E-01 | 2.75E-02 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 1.05E+02 | 5.07E+03 | 1.11E+04 | 2.57E+07 | 9.09E-01 | 4.38E-02 |
| | 400-600 | 8.18E+01 | 9.02E+03 | 2.24E+03 | 2.71E+07 | 1.16E+00 | 1.28E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 2.34E+02 | 3.34E+04 | 4.20E+04 | 7.94E+08 | 1.90E+00 | 2.70E-01 |
| | 400-600 | 1.99E+02 | 3.78E+03 | 3.96E+04 | 1.43E+07 | 2.73E+00 | 5.17E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 8.70E+01 | 5.65E+03 | 2.57E+03 | 1.07E+07 | 2.05E+00 | 1.33E-01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 4.00E+02 | 3.09E+04 | 2.39E+04 | 1.66E+08 | 1.54E+00 | 1.19E-01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **1.31E+03** | **1.02E+05** | **1.36E+05** | **1.10E+09** | **4.27E-01** | **3.25E-02** |

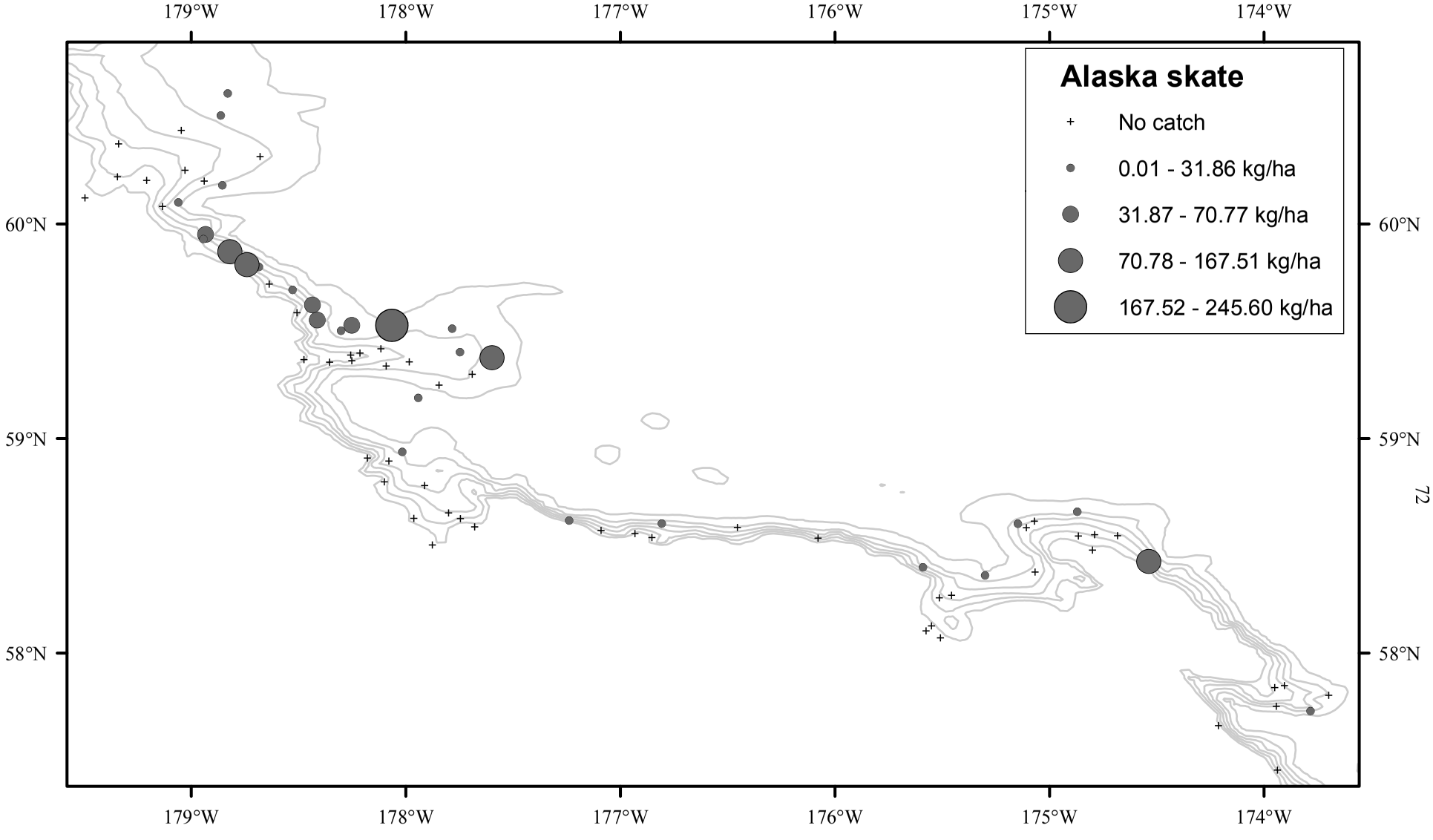


**Figure 6.** - - Distribution and relative abundance of Alaska skate from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

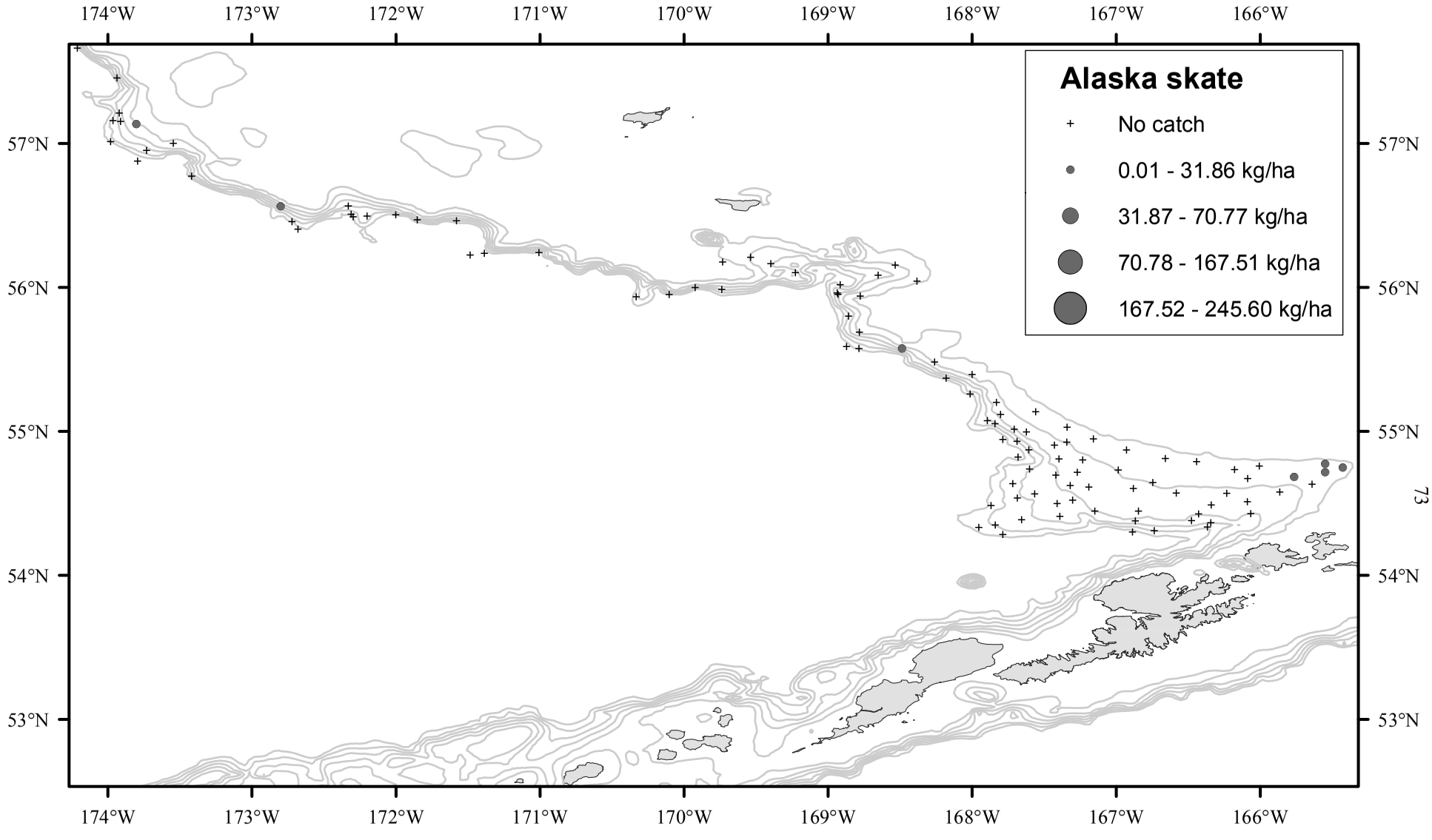


**Figure 6.** - - Continued.

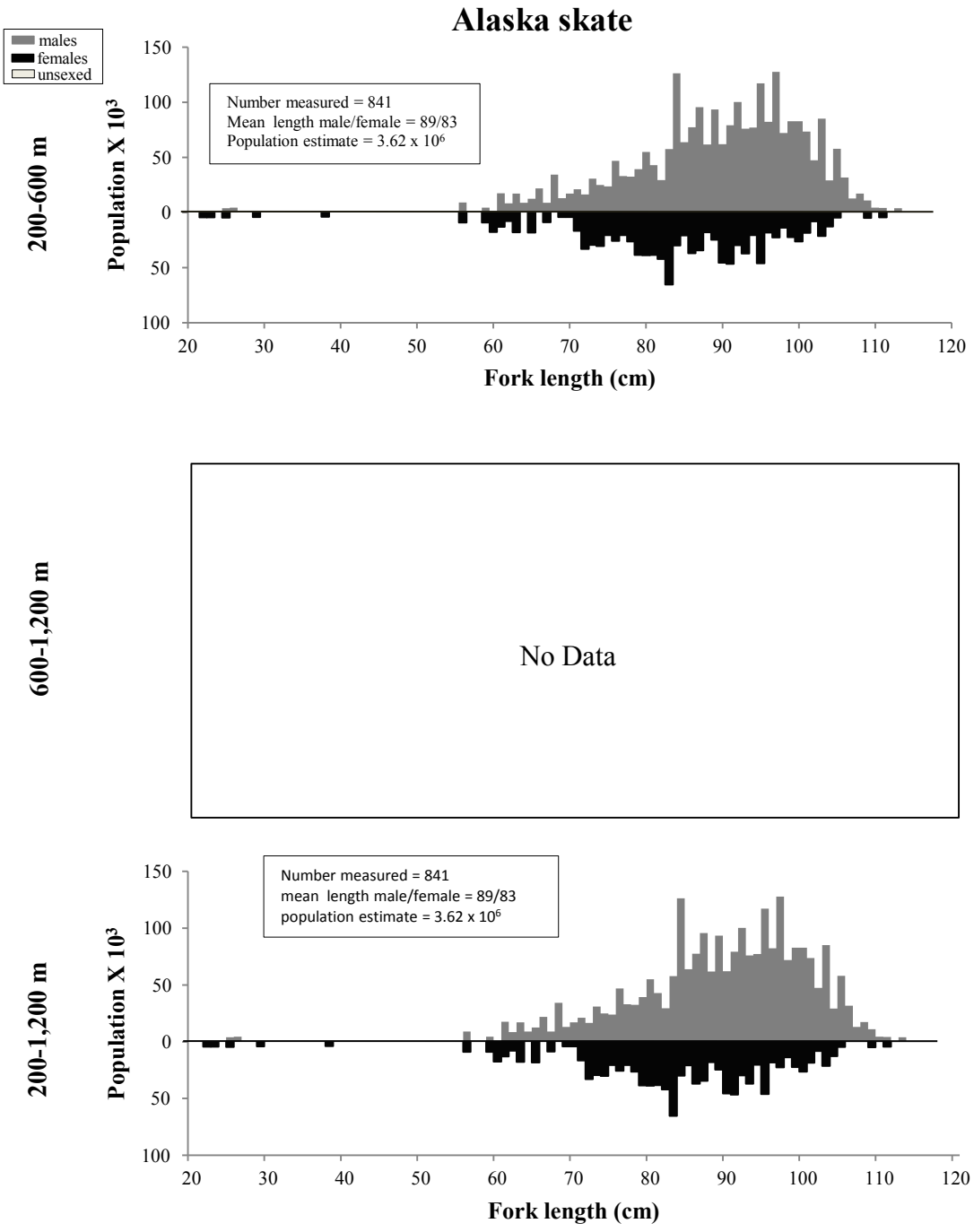


**Figure 7.** - - Size composition of the estimated Alaska skate population from the 2012 EBSS survey for all subareas by depth.

**Table 11. - -** Abundance estimates by subarea and depth stratum for Alaska skate (*Bathyraja parmifera* ) from the 2012 EBSS survey.

***Bathyraja parmifera*** **Alaska skate**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | **200-400** | 2.50E+02 | 3.55E+04 | 1.35E+04 | 2.85E+08 | 6.22E-01 | 8.84E-02 |
| | **400-600** | | | | | | |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 2 | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 3 | **200-400** | 2.31E+02 | 3.08E+04 | 4.00E+04 | 6.39E+08 | 2.56E+00 | 3.40E-01 |
| | **400-600** | | | | | | |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 4 | **200-400** | 1.80E+03 | 2.98E+05 | 2.34E+06 | 6.61E+10 | 1.46E+01 | 2.41E+00 |
| | **400-600** | 2.28E+01 | 4.10E+03 | 5.21E+02 | 1.68E+07 | 3.12E-01 | 5.62E-02 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 5 | **200-400** | 5.21E+02 | 8.59E+04 | 4.99E+04 | 1.33E+09 | 1.23E+01 | 2.03E+00 |
| | **400-600** | | | | | | |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 6 | **200-400** | 1.23E+04 | 2.42E+06 | 1.82E+07 | 8.04E+11 | 4.73E+01 | 9.33E+00 |
| | **400-600** | 3.99E+03 | 7.40E+05 | 6.51E+06 | 2.48E+11 | 2.34E+01 | 4.34E+00 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **1.91E+04** | **3.62E+06** | **2.72E+07** | **1.12E+12** | **6.31E+00** | **1.20E+00** |

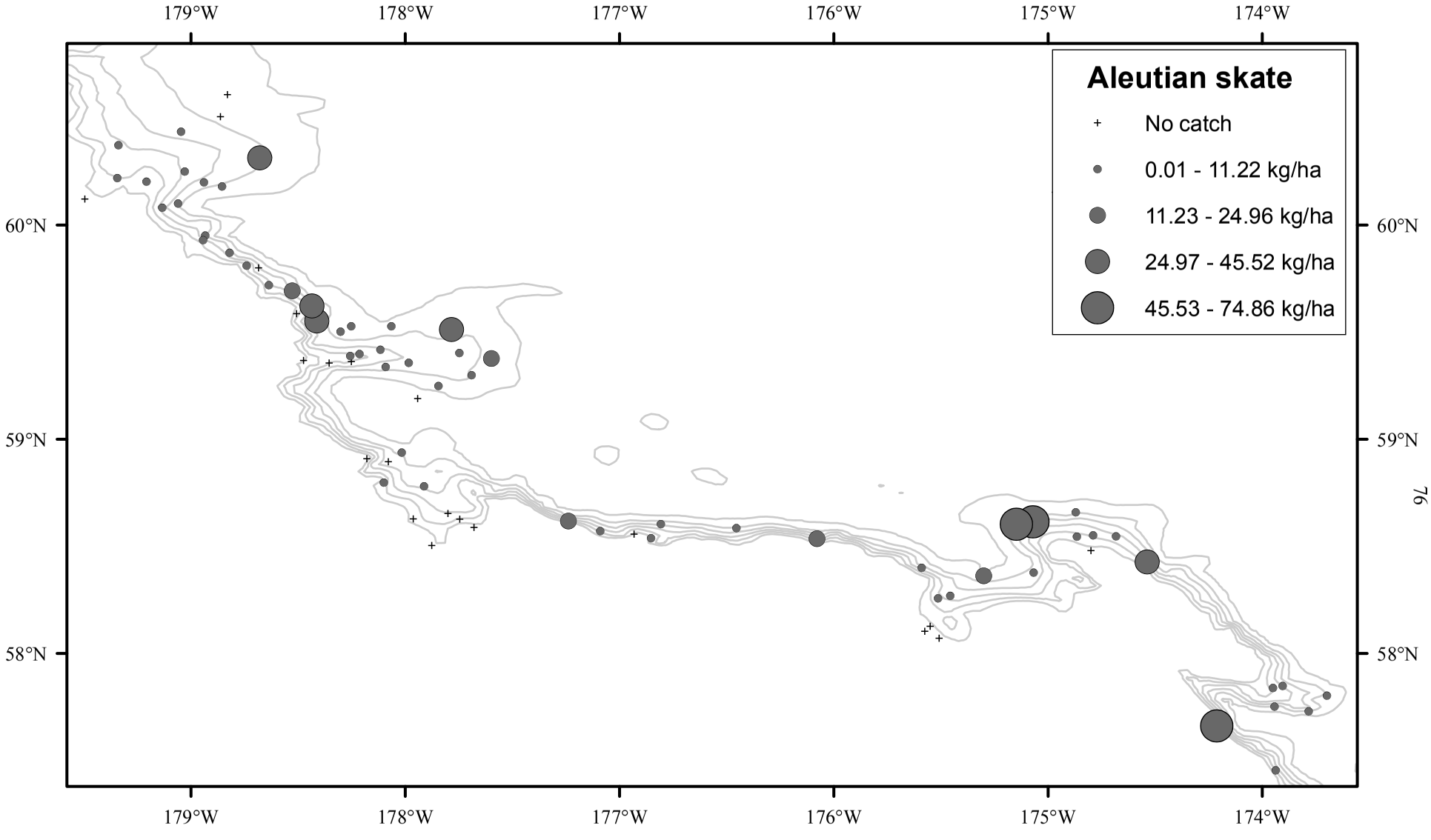


**Figure 8.** - - Distribution and relative abundance of Aleutian skate from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

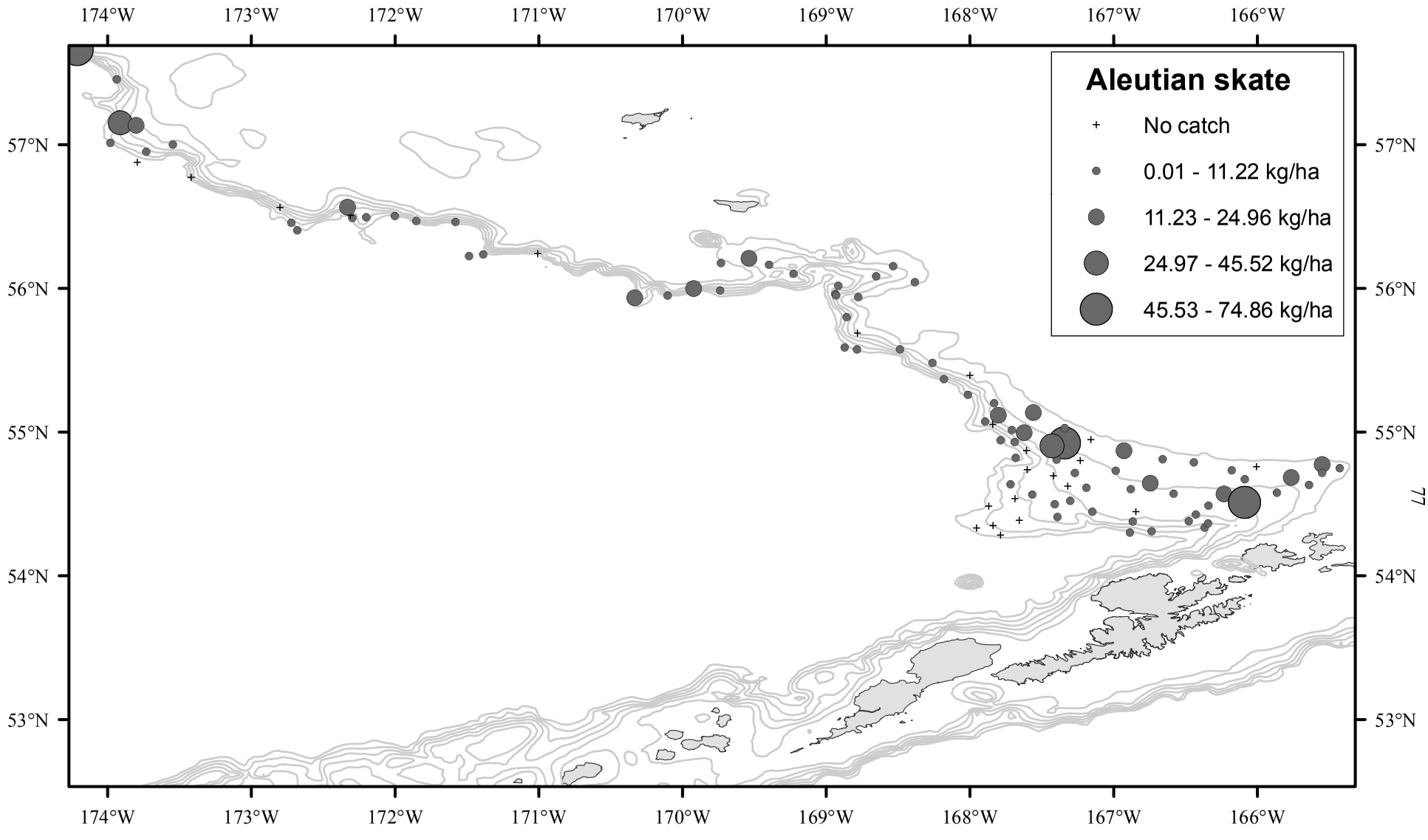


**Figure 8.** - - Continued.

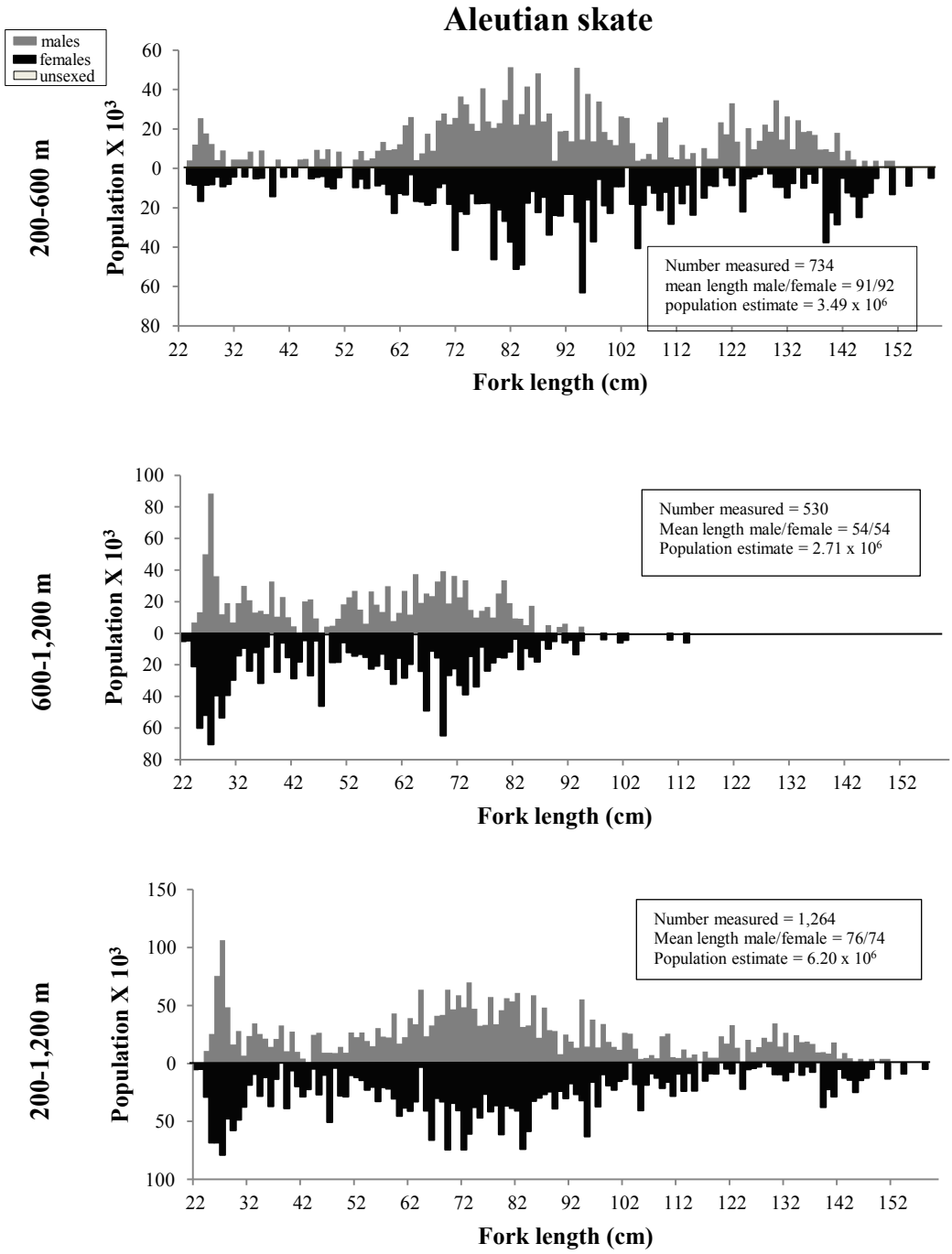


**Figure 9** - - Size composition of the estimated Aleutian skate population from the 2012 EBSS survey for all subareas by depth.

**Table 12. - -** Abundance estimates by subarea and depth stratum for Aleutian skate (*Bathyraja aleutica* ) from the 2012 EBSS survey.

***Bathyraja aleutica*** **Aleutian skate**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 4.28E+03 | 4.78E+05 | 1.80E+06 | 1.38E+10 | 1.07E+01 | 1.19E+00 |
| | 400-600 | 3.57E+03 | 6.63E+05 | 1.97E+06 | 1.17E+11 | 8.78E+00 | 1.63E+00 |
| | 600-800 | 4.81E+02 | 3.01E+05 | 1.41E+04 | 7.92E+09 | 2.76E+00 | 1.73E+00 |
| | 800-1,000 | 5.61E+00 | 2.98E+04 | 1.50E+01 | 2.67E+08 | 4.14E-02 | 2.20E-01 |
| | 1,000-1,200 | 2.87E+01 | 1.09E+05 | 2.46E+02 | 3.44E+09 | 2.60E-01 | 9.88E-01 |
| 2 | 200-400 | 8.08E+02 | 1.43E+05 | 1.51E+05 | 5.53E+09 | 6.98E+00 | 1.24E+00 |
| | 400-600 | 4.68E+02 | 1.45E+05 | 3.86E+04 | 2.30E+09 | 6.64E+00 | 2.06E+00 |
| | 600-800 | 3.35E+02 | 2.47E+05 | 2.31E+04 | 1.75E+10 | 5.66E+00 | 4.18E+00 |
| | 800-1,000 | 4.76E+02 | 3.30E+05 | 4.83E+04 | 1.20E+10 | 8.61E+00 | 5.98E+00 |
| | 1,000-1,200 | 1.18E+02 | 3.71E+05 | 2.75E+03 | 3.38E+10 | 2.20E+00 | 6.93E+00 |
| 3 | 200-400 | 3.59E+02 | 4.85E+04 | 5.72E+04 | 5.05E+08 | 3.97E+00 | 5.37E-01 |
| | 400-600 | 9.79E+02 | 3.01E+05 | 5.94E+05 | 6.12E+10 | 1.11E+01 | 3.39E+00 |
| | 600-800 | 7.11E+02 | 3.31E+05 | 6.67E+04 | 8.13E+09 | 7.81E+00 | 3.63E+00 |
| | 800-1,000 | 1.68E+02 | 1.98E+05 | 3.28E+03 | 1.20E+10 | 2.30E+00 | 2.70E+00 |
| | 1,000-1,200 | 1.50E+01 | 9.65E+04 | 7.06E+01 | 2.63E+09 | 2.22E-01 | 1.43E+00 |
| 4 | 200-400 | 2.17E+03 | 2.12E+05 | 7.95E+05 | 5.68E+09 | 1.76E+01 | 1.72E+00 |
| | 400-600 | 1.86E+03 | 5.10E+05 | 8.69E+05 | 2.14E+10 | 2.55E+01 | 6.98E+00 |
| | 600-800 | 3.36E+02 | 2.63E+05 | 5.42E+03 | 1.13E+09 | 4.85E+00 | 3.79E+00 |
| | 800-1,000 | 8.93E+01 | 1.32E+05 | 7.64E+03 | 1.49E+10 | 1.26E+00 | 1.86E+00 |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 3.58E+02 | 3.48E+04 | 1.93E+04 | 2.26E+08 | 8.45E+00 | 8.21E-01 |
| | 400-600 | 2.83E+02 | 5.64E+04 | 3.39E+04 | 9.25E+08 | 6.65E+00 | 1.33E+00 |
| | 600-800 | 3.15E+01 | 3.10E+04 | 2.51E+02 | 2.40E+08 | 7.30E-01 | 7.17E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 2.57E+03 | 3.54E+05 | 7.88E+05 | 1.78E+10 | 9.89E+00 | 1.36E+00 |
| | 400-600 | 1.51E+03 | 5.50E+05 | 3.26E+05 | 1.47E+10 | 8.87E+00 | 3.22E+00 |
| | 600-800 | 3.26E+02 | 2.45E+05 | 3.88E+03 | 2.73E+09 | 3.55E+00 | 2.67E+00 |
| | 800-1,000 | 2.35E+01 | 2.31E+04 | 5.52E+02 | 5.36E+08 | 3.64E-01 | 3.59E-01 |
| | 1,000-1,200 | 1.02E+01 | 6.14E+03 | 1.04E+02 | 3.78E+07 | 2.05E-01 | 1.24E-01 |
| **1-6** | **200-1,200** | **2.24E+04** | **6.21E+06** | **7.61E+06** | **3.79E+11** | **6.97E+00** | **1.94E+00** |

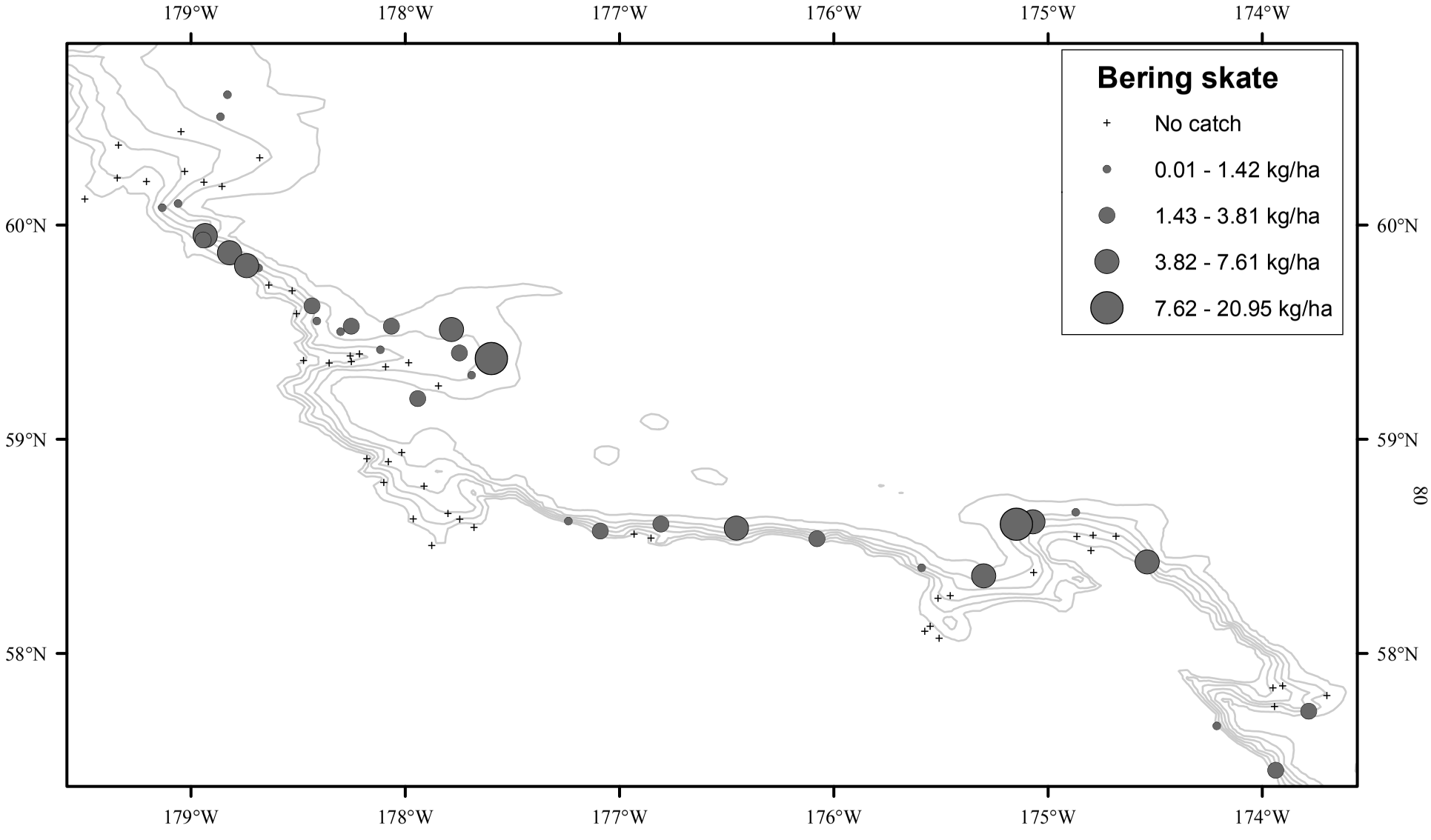


**Figure 10.** - - Distribution and relative abundance fo Bering skate from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

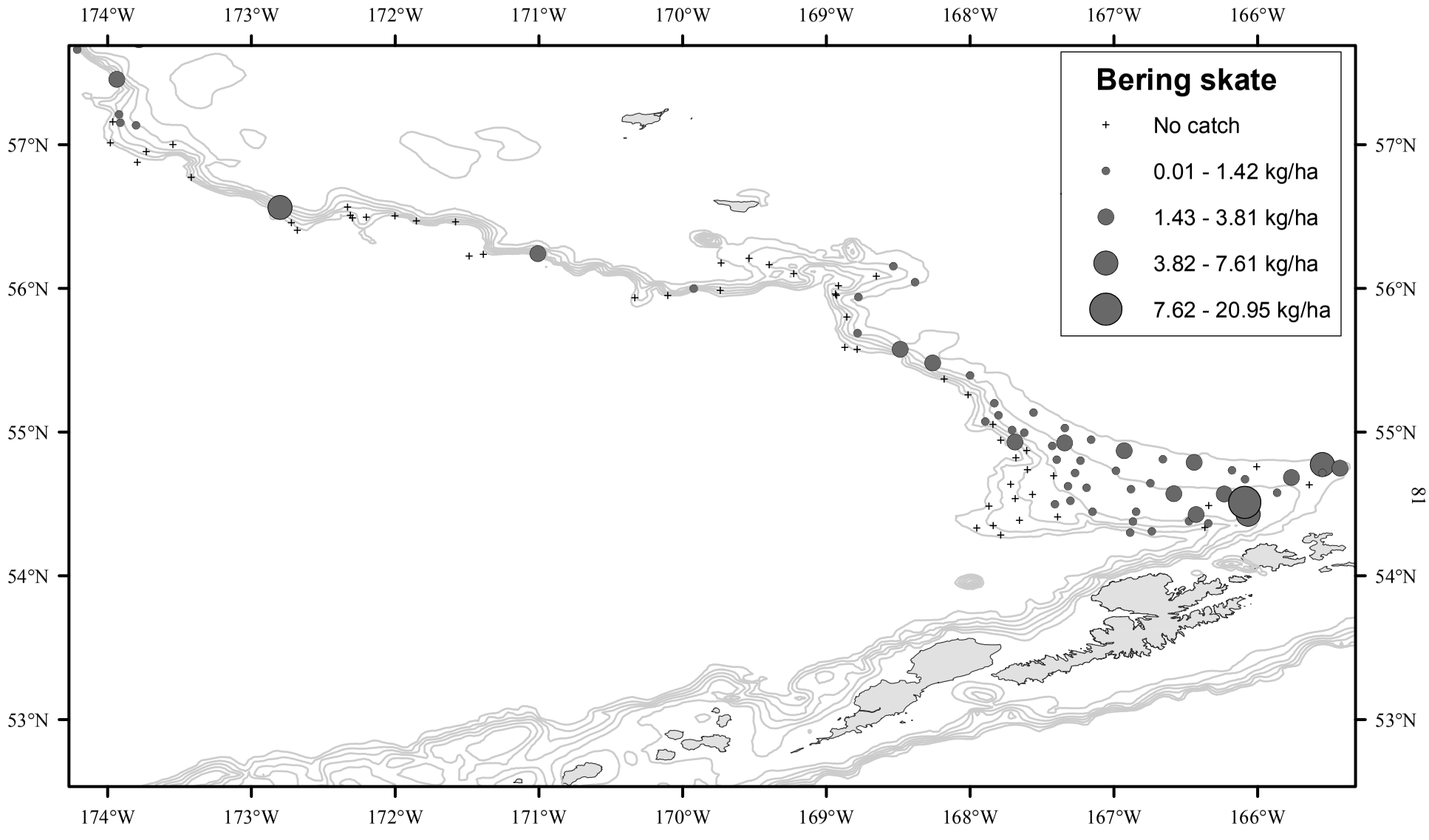


**Figure 10.** - - Continued.

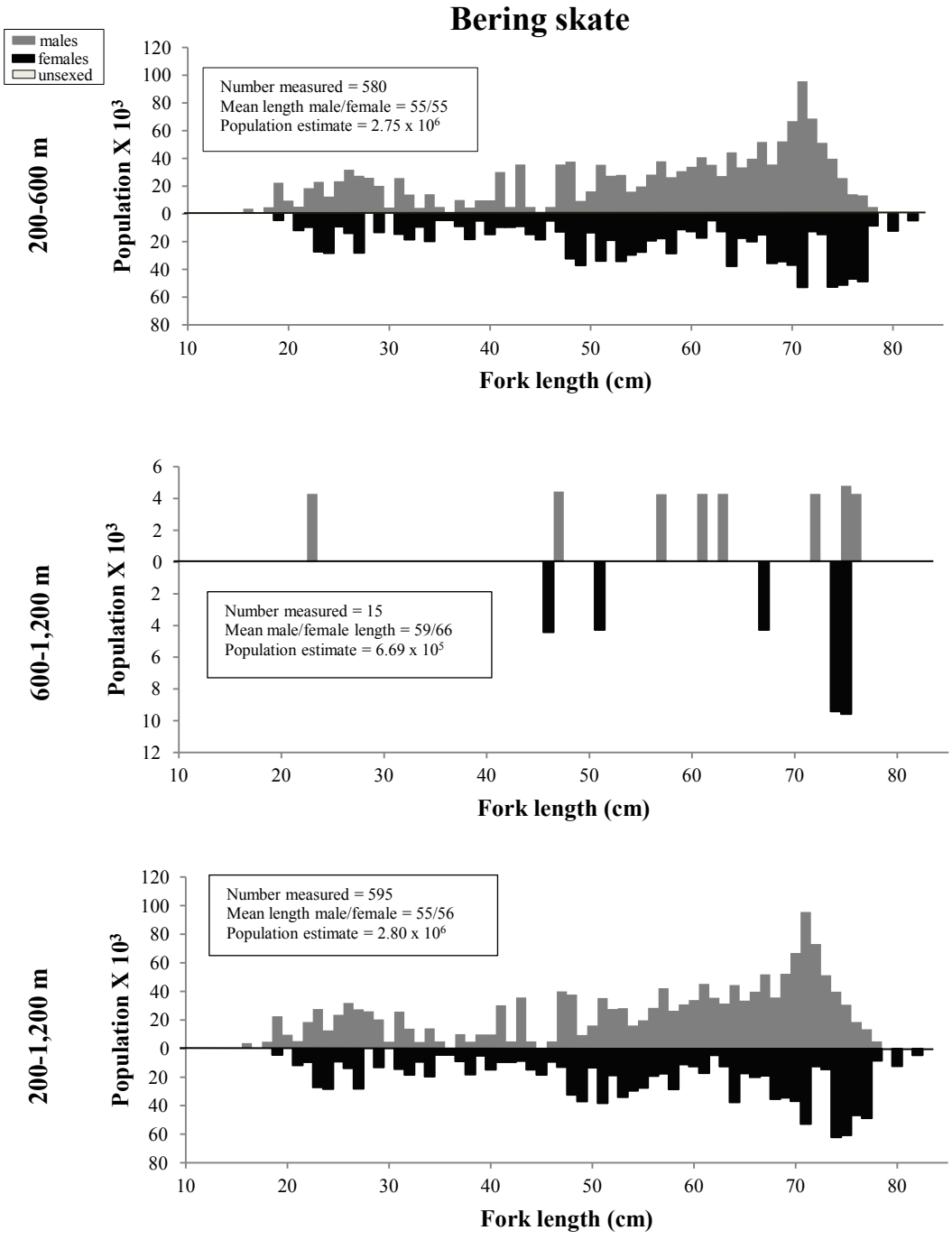


**Figure 11.** - - Size composition of the estimated Bering skate population from the 2012 EBSS survey for all subareas by depth.

**Table 13. - -** Abundance estimates by subarea and depth stratum for Bering skate (*Bathyraja interrupta* ) from the 2012 EBSS survey.

***Bathyraja interrupta*** **Bering skate**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 5.80E+02 | 5.34E+05 | 1.39E+04 | 1.99E+10 | 1.45E+00 | 1.33E+00 |
| | 400-600 | 7.39E+02 | 4.06E+05 | 1.34E+05 | 3.55E+10 | 1.82E+00 | 1.00E+00 |
| | 600-800 | 9.69E+01 | 5.76E+04 | 1.50E+03 | 3.98E+08 | 5.56E-01 | 3.30E-01 |
| | 800-1,000 | 1.21E+01 | 5.10E+03 | 1.47E+02 | 2.60E+07 | 8.96E-02 | 3.76E-02 |
| | 1,000-1,200 | 2.40E-01 | 4.29E+03 | 5.76E-02 | 1.84E+07 | 2.17E-03 | 3.87E-02 |
| 2 | 200-400 | 3.90E+01 | 4.74E+04 | 2.51E+02 | 5.69E+08 | 3.37E-01 | 4.10E-01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 2.37E+02 | 1.44E+05 | 8.73E+03 | 3.87E+09 | 2.62E+00 | 1.59E+00 |
| | 400-600 | 2.91E+01 | 1.96E+04 | 5.65E+02 | 2.15E+08 | 3.28E-01 | 2.21E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 3.16E+02 | 2.63E+05 | 1.55E+04 | 1.57E+10 | 2.56E+00 | 2.13E+00 |
| | 400-600 | 2.89E+02 | 1.64E+05 | 4.69E+04 | 1.35E+10 | 3.95E+00 | 2.25E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 9.40E+01 | 8.40E+04 | 4.93E+03 | 2.50E+09 | 2.22E+00 | 1.98E+00 |
| | 400-600 | 5.23E+01 | 2.77E+04 | 1.06E+03 | 2.79E+08 | 1.23E+00 | 6.51E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 7.33E+02 | 8.91E+05 | 5.01E+04 | 1.18E+11 | 2.82E+00 | 3.43E+00 |
| | 400-600 | 2.26E+02 | 1.54E+05 | 1.11E+04 | 5.72E+09 | 1.32E+00 | 9.01E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **3.44E+03** | **2.80E+06** | **2.88E+05** | **2.16E+11** | **1.09E+00** | **8.88E-01** |

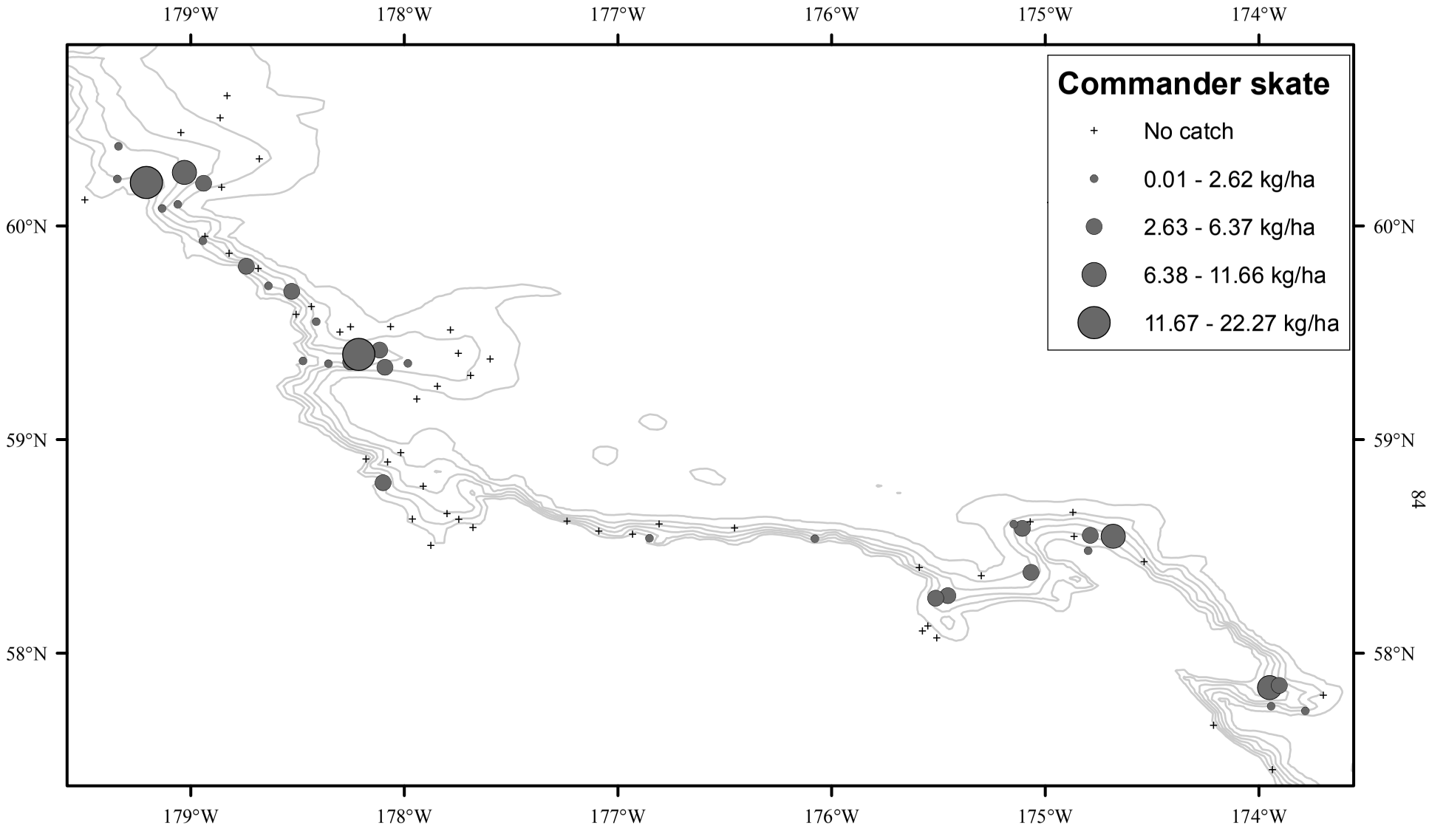


**Figure 12.** - - Distribution and relative abundance of Commander skate from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

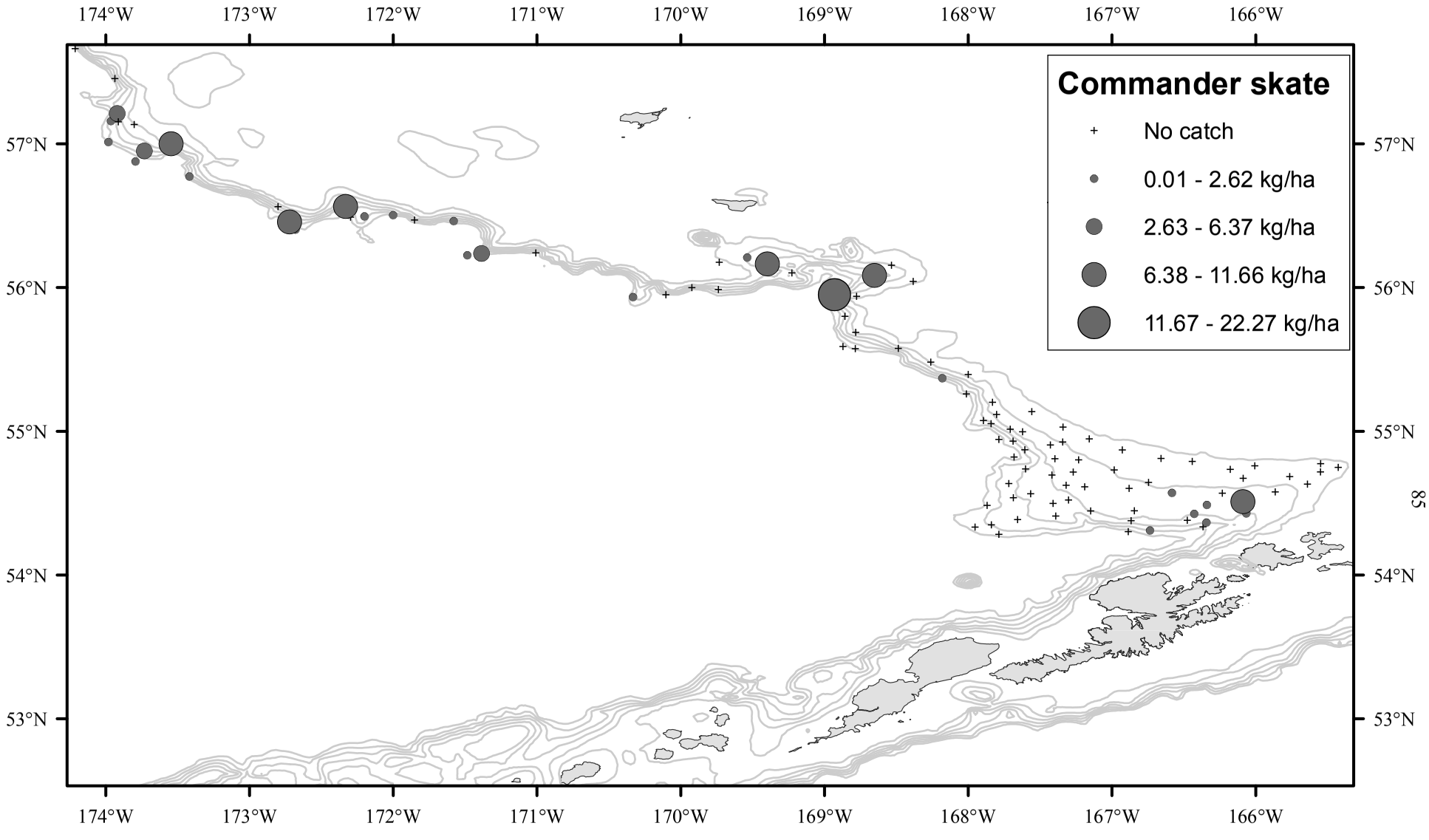




**Figure 12.** - - Continued.

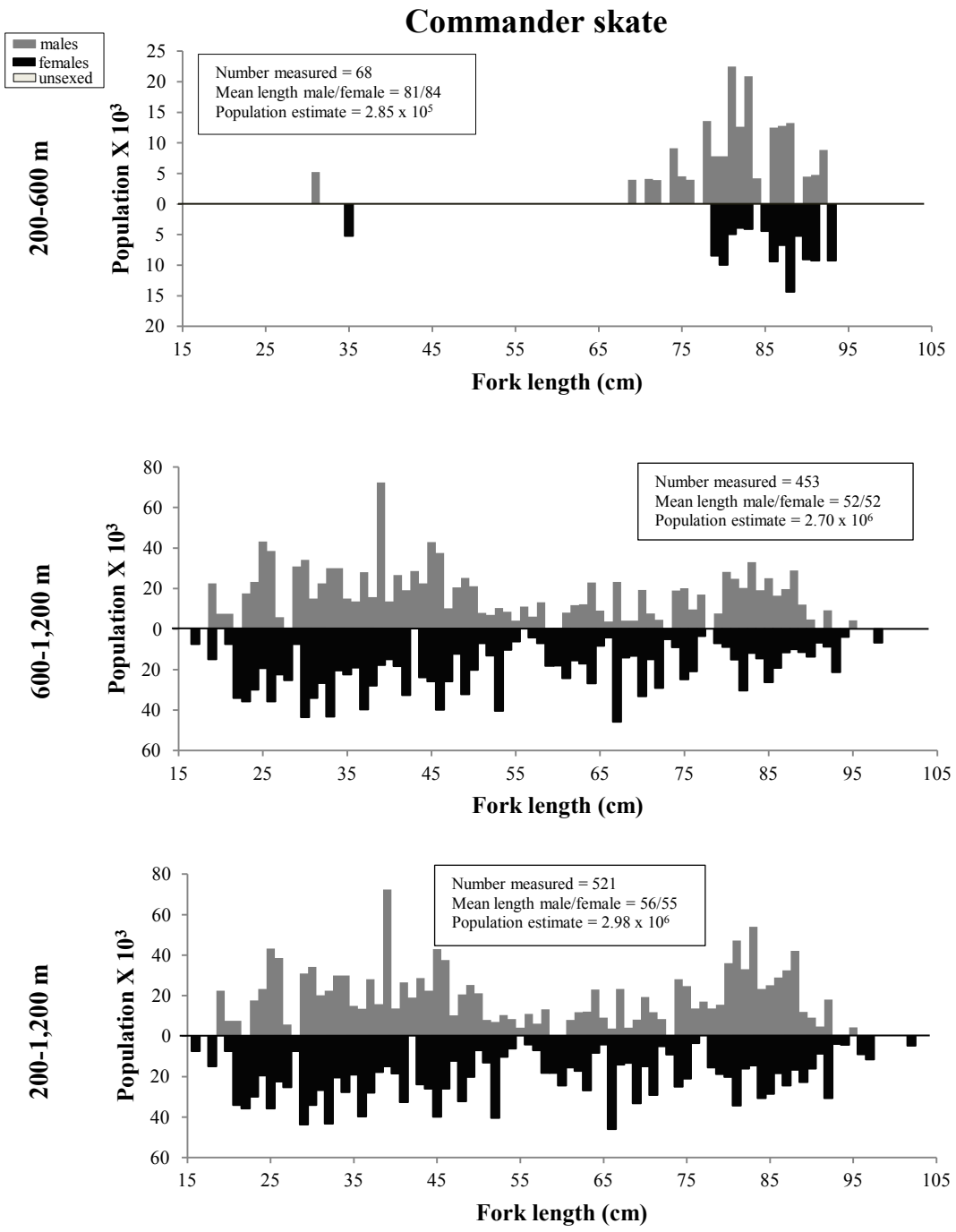


**Figure 13.** - - Size composition of the estimated Commander skate population from the 2012 EBSS survey for all subareas by depth.

**Table 14. - -** Abundance estimates by subarea and depth stratum for Commander skate (*Bathyraja lindbergi* ) from the 2012 EBSS survey.

***Bathyraja lindbergi*** **Commander skate**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | | | | | | |
| | 400-600 | 2.78E+02 | 5.91E+04 | 2.27E+04 | 9.13E+08 | 6.84E-01 | 1.45E-01 |
| | 600-800 | 3.95E+01 | 8.58E+03 | 1.56E+03 | 7.35E+07 | 2.27E-01 | 4.92E-02 |
| | 800-1,000 | 1.13E+01 | 5.10E+03 | 1.28E+02 | 2.60E+07 | 8.35E-02 | 3.76E-02 |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | | | | | | |
| | 400-600 | 3.71E+01 | 9.92E+03 | 1.38E+03 | 9.84E+07 | 5.26E-01 | 1.41E-01 |
| | 600-800 | 7.25E+02 | 2.34E+05 | 2.36E+04 | 8.34E+09 | 1.23E+01 | 3.96E+00 |
| | 800-1,000 | 9.17E+01 | 2.55E+04 | 3.80E+03 | 3.36E+08 | 1.66E+00 | 4.62E-01 |
| | 1,000-1,200 | 2.55E+01 | 1.21E+04 | 6.51E+02 | 1.48E+08 | 4.76E-01 | 2.27E-01 |
| 3 | 200-400 | | | | | | |
| | 400-600 | 1.34E+02 | 4.43E+04 | 2.22E+03 | 1.98E+08 | 1.51E+00 | 5.00E-01 |
| | 600-800 | 4.77E+02 | 1.64E+05 | 1.17E+04 | 2.16E+09 | 5.24E+00 | 1.81E+00 |
| | 800-1,000 | 2.67E+02 | 1.01E+06 | 3.83E+04 | 9.66E+11 | 3.65E+00 | 1.38E+01 |
| | 1,000-1,200 | 3.99E+01 | 2.53E+04 | 9.78E+02 | 1.09E+08 | 5.91E-01 | 3.74E-01 |
| 4 | 200-400 | 1.97E+01 | 4.76E+03 | 3.89E+02 | 2.27E+07 | 1.59E-01 | 3.85E-02 |
| | 400-600 | 2.51E+02 | 7.03E+04 | 7.08E+03 | 6.02E+08 | 3.44E+00 | 9.63E-01 |
| | 600-800 | 4.19E+02 | 1.74E+05 | 5.13E+03 | 6.39E+08 | 6.03E+00 | 2.50E+00 |
| | 800-1,000 | 4.25E+01 | 1.04E+04 | 1.80E+03 | 1.09E+08 | 6.00E-01 | 1.47E-01 |
| | 1,000-1,200 | 3.06E+01 | 6.92E+03 | 9.36E+02 | 4.79E+07 | 4.62E-01 | 1.04E-01 |
| 5 | 200-400 | | | | | | |
| | 400-600 | 1.35E+01 | 2.79E+03 | 1.83E+02 | 7.80E+06 | 3.18E-01 | 6.56E-02 |
| | 600-800 | 6.86E+01 | 3.27E+04 | 2.61E+03 | 6.50E+08 | 1.59E+00 | 7.57E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 1.47E+01 | 4.70E+03 | 2.15E+02 | 2.21E+07 | 5.65E-02 | 1.81E-02 |
| | 400-600 | 3.30E+02 | 1.12E+05 | 7.29E+03 | 8.86E+08 | 1.94E+00 | 6.57E-01 |
| | 600-800 | 6.98E+02 | 4.16E+05 | 9.08E+04 | 2.68E+10 | 7.60E+00 | 4.53E+00 |
| | 800-1,000 | 8.68E+01 | 2.10E+05 | 4.27E+03 | 1.40E+10 | 1.34E+00 | 3.26E+00 |
| | 1,000-1,200 | 3.22E+02 | 3.72E+05 | 9.73E+04 | 1.10E+11 | 6.49E+00 | 7.49E+00 |
| **1-6** | **200-1,200** | **4.42E+03** | **3.01E+06** | **3.25E+05** | **1.13E+12** | **1.40E+00** | **9.41E-01** |

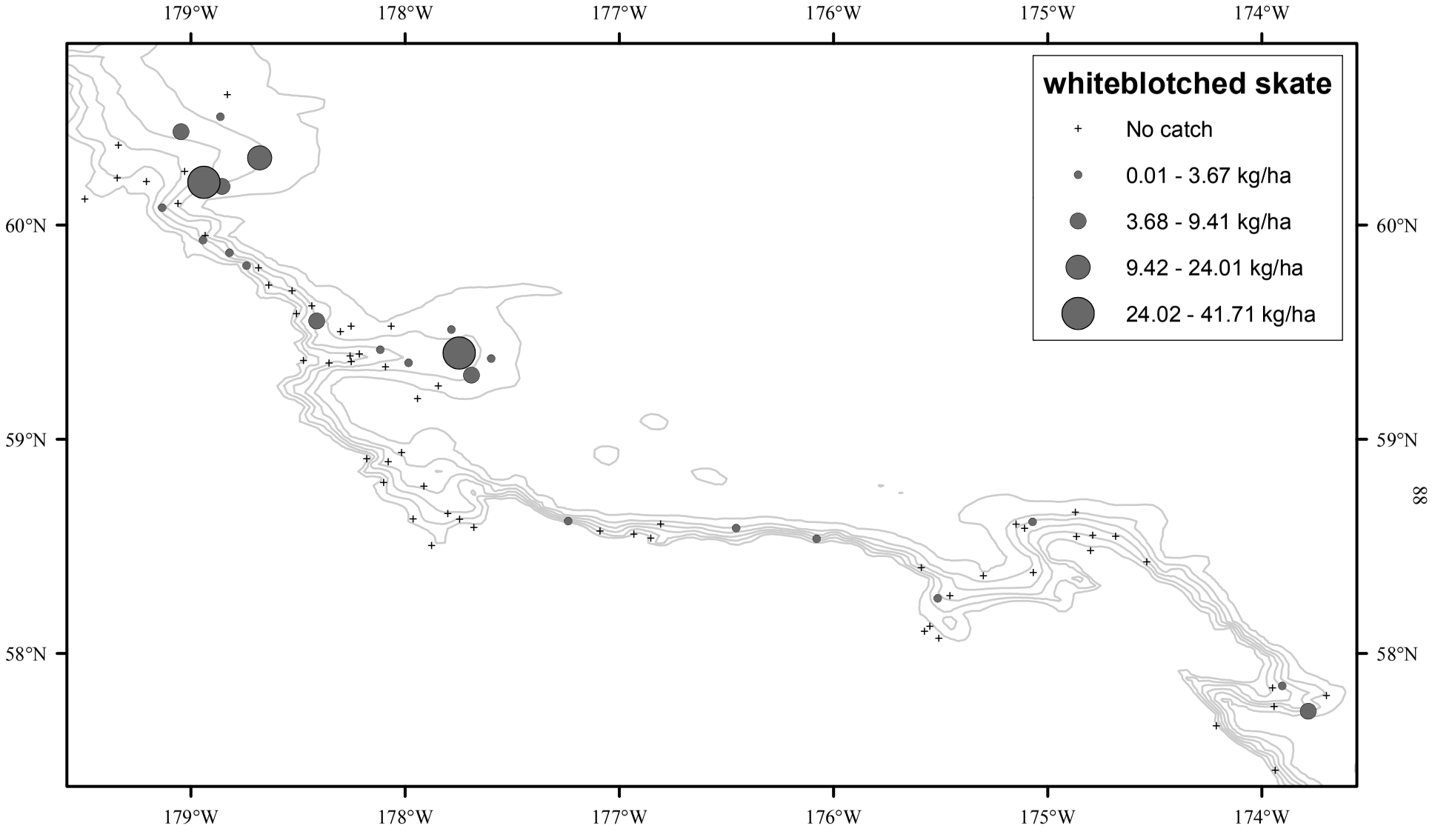


**Figure 14.** - - Distribution and relative abundance of whiteblotched skate from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

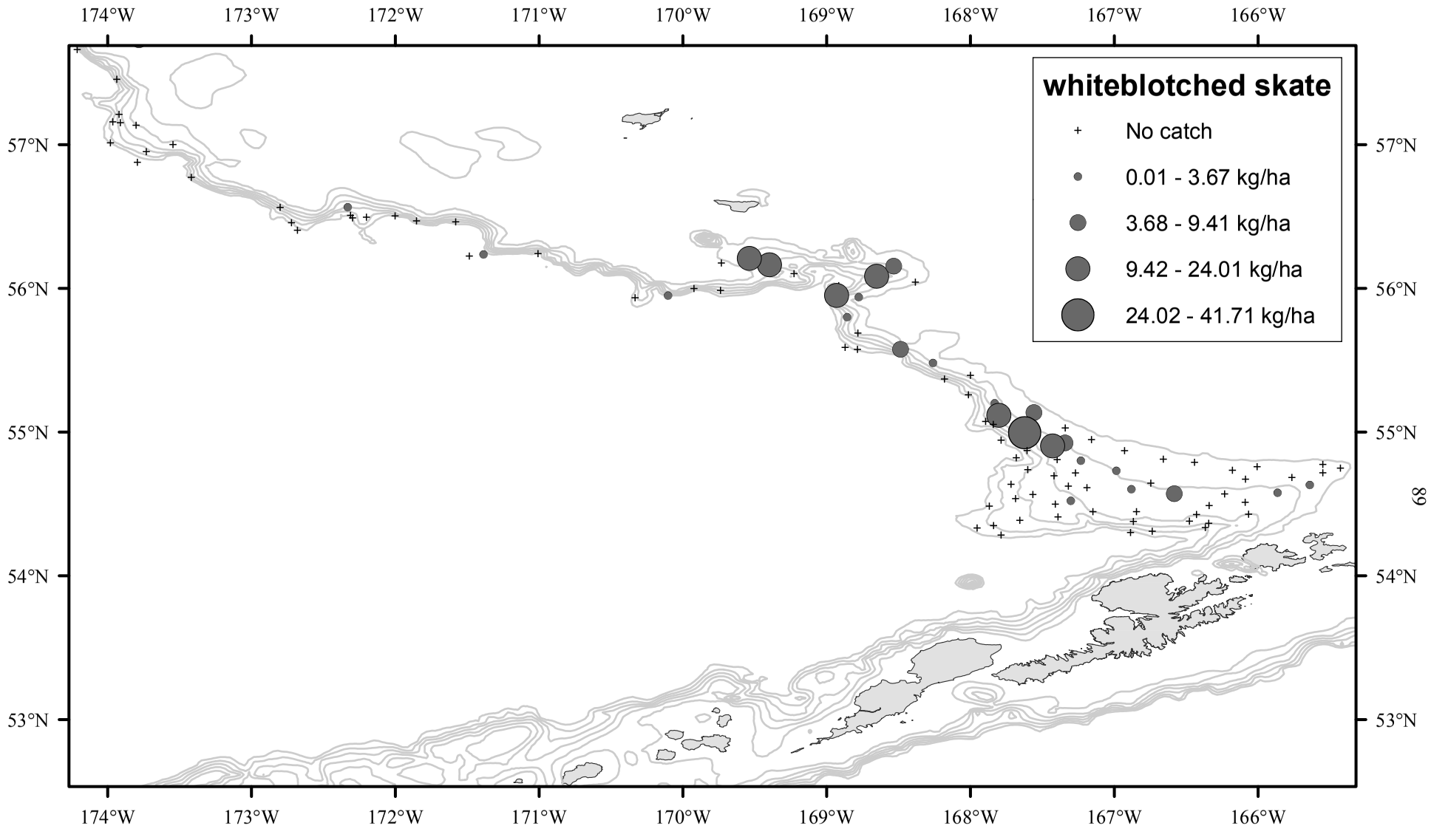


**Figure 14.** - - Continued.

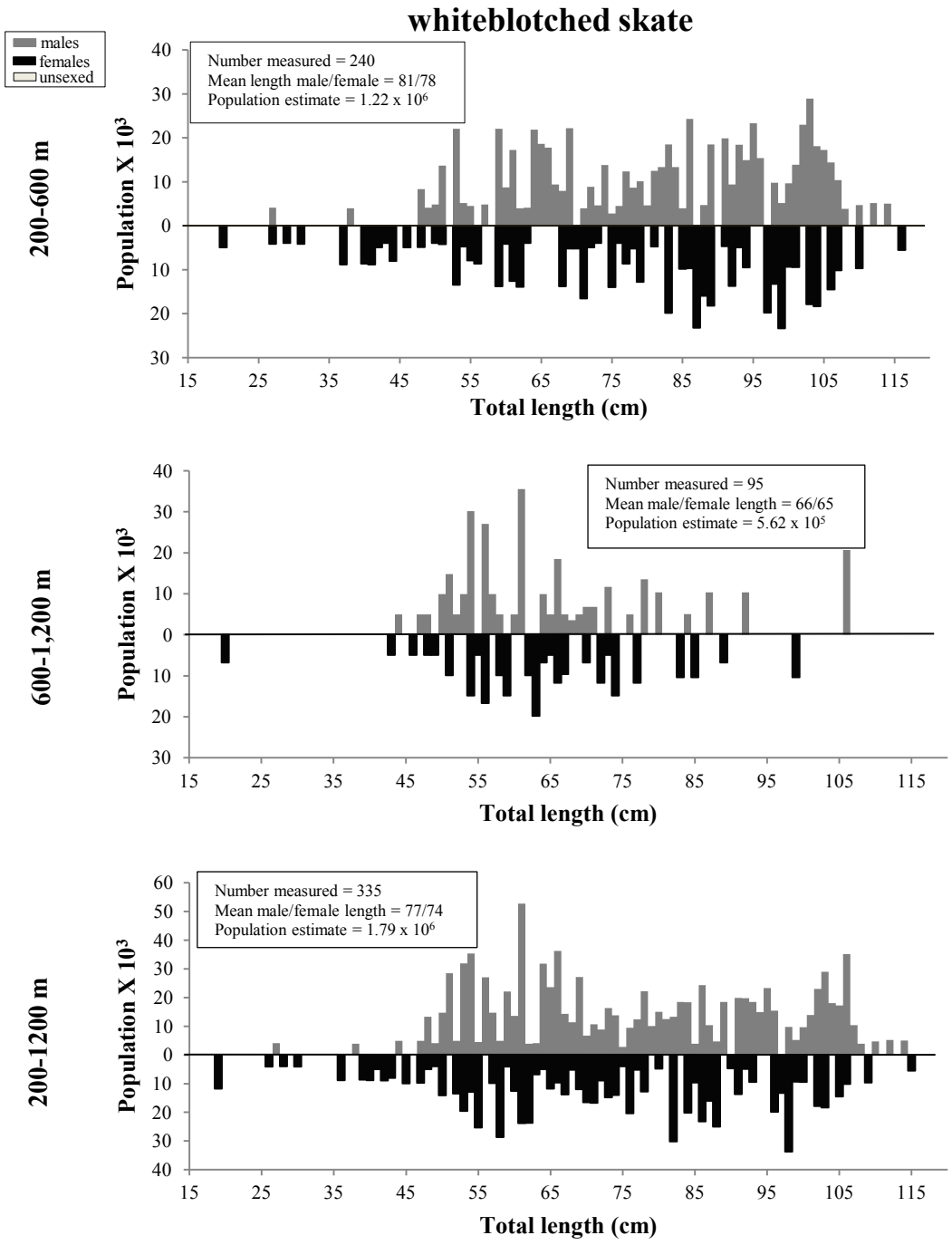


**Figure 15.** - - Size composition of the estimated whiteblotched skate population from the 2012 EBSS survey for all subareas by depth.

**Table 15. - -** Abundance estimates by subarea and depth stratum for whiteblotched skate (*Bathyraja maculata* ) from the 2012 EBSS survey.

***Bathyraja maculata*** **whiteblotched skate**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 4.47E+02 | 6.04E+04 | 2.45E+04 | 4.52E+08 | 1.12E+00 | 1.50E-01 |
| | 400-600 | 1.34E+03 | 2.59E+05 | 4.43E+05 | 1.79E+10 | 3.31E+00 | 6.37E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 1.24E+02 | 1.52E+04 | 6.60E+03 | 1.08E+08 | 1.07E+00 | 1.31E-01 |
| | 400-600 | 3.81E+02 | 9.27E+04 | 8.06E+04 | 5.67E+09 | 5.40E+00 | 1.31E+00 |
| | 600-800 | 1.11E+03 | 5.49E+05 | 4.56E+04 | 4.02E+10 | 1.88E+01 | 9.29E+00 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | 2.69E+01 | 9.73E+03 | 3.07E+02 | 3.56E+07 | 2.96E-01 | 1.07E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 1.66E+02 | 4.29E+04 | 2.76E+04 | 1.84E+09 | 1.34E+00 | 3.47E-01 |
| | 400-600 | 3.08E+01 | 3.67E+04 | 4.28E+02 | 1.03E+09 | 4.21E-01 | 5.02E-01 |
| | 600-800 | 6.43E+00 | 3.53E+03 | 4.13E+01 | 1.25E+07 | 9.27E-02 | 5.09E-02 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 3.03E+01 | 5.65E+03 | 3.18E+02 | 1.07E+07 | 7.16E-01 | 1.33E-01 |
| | 400-600 | 7.71E+00 | 2.79E+03 | 5.94E+01 | 7.80E+06 | 1.81E-01 | 6.56E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 6.35E+02 | 2.04E+05 | 8.75E+04 | 1.80E+10 | 2.45E+00 | 7.88E-01 |
| | 400-600 | 1.44E+03 | 5.05E+05 | 5.52E+05 | 6.77E+10 | 8.45E+00 | 2.96E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **5.75E+03** | **1.79E+06** | **1.27E+06** | **1.53E+11** | **1.76E+00** | **5.47E-01** |

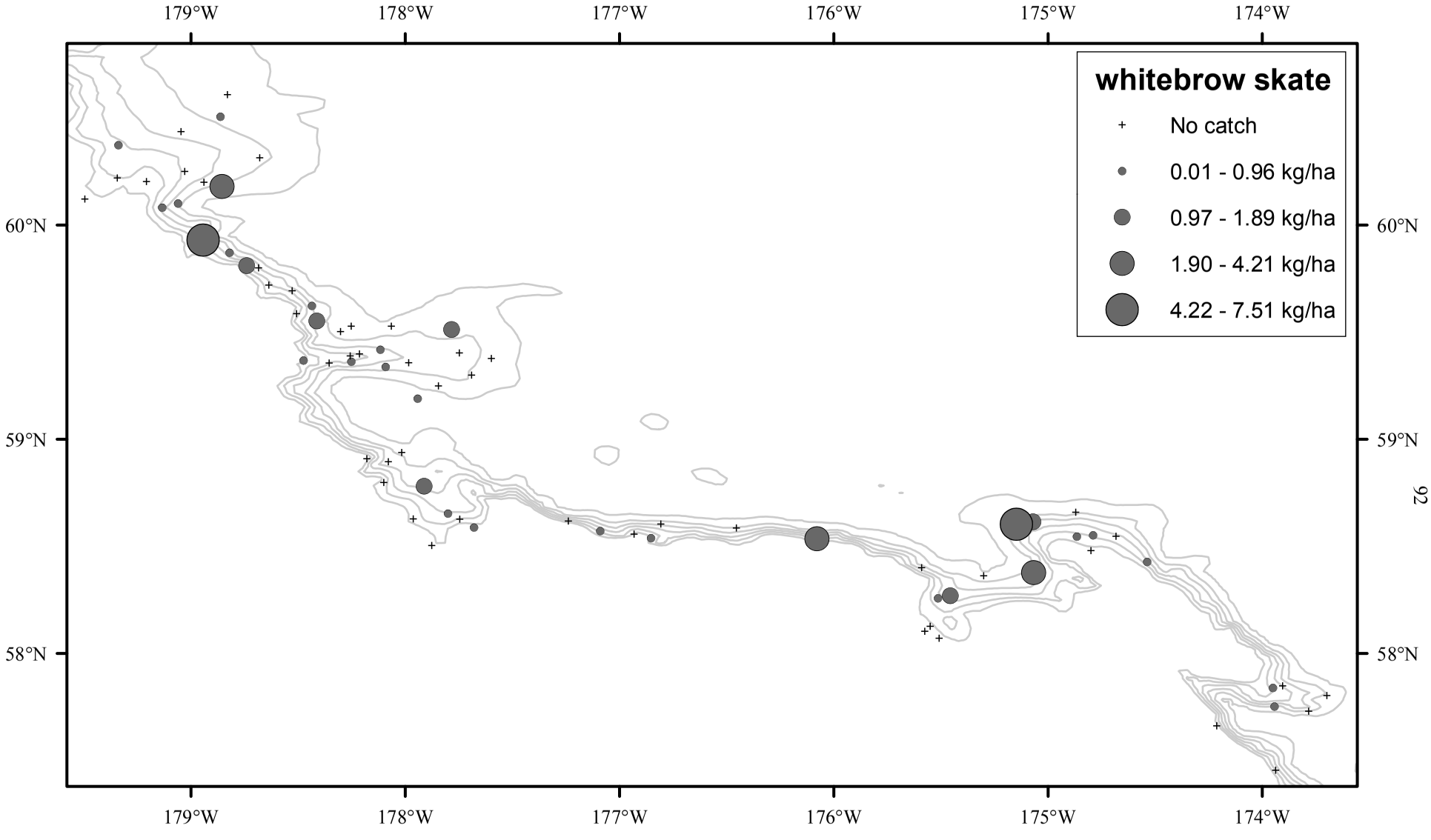


**Figure 16.** - - Distribution and relative abundance of whitebrow skate from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

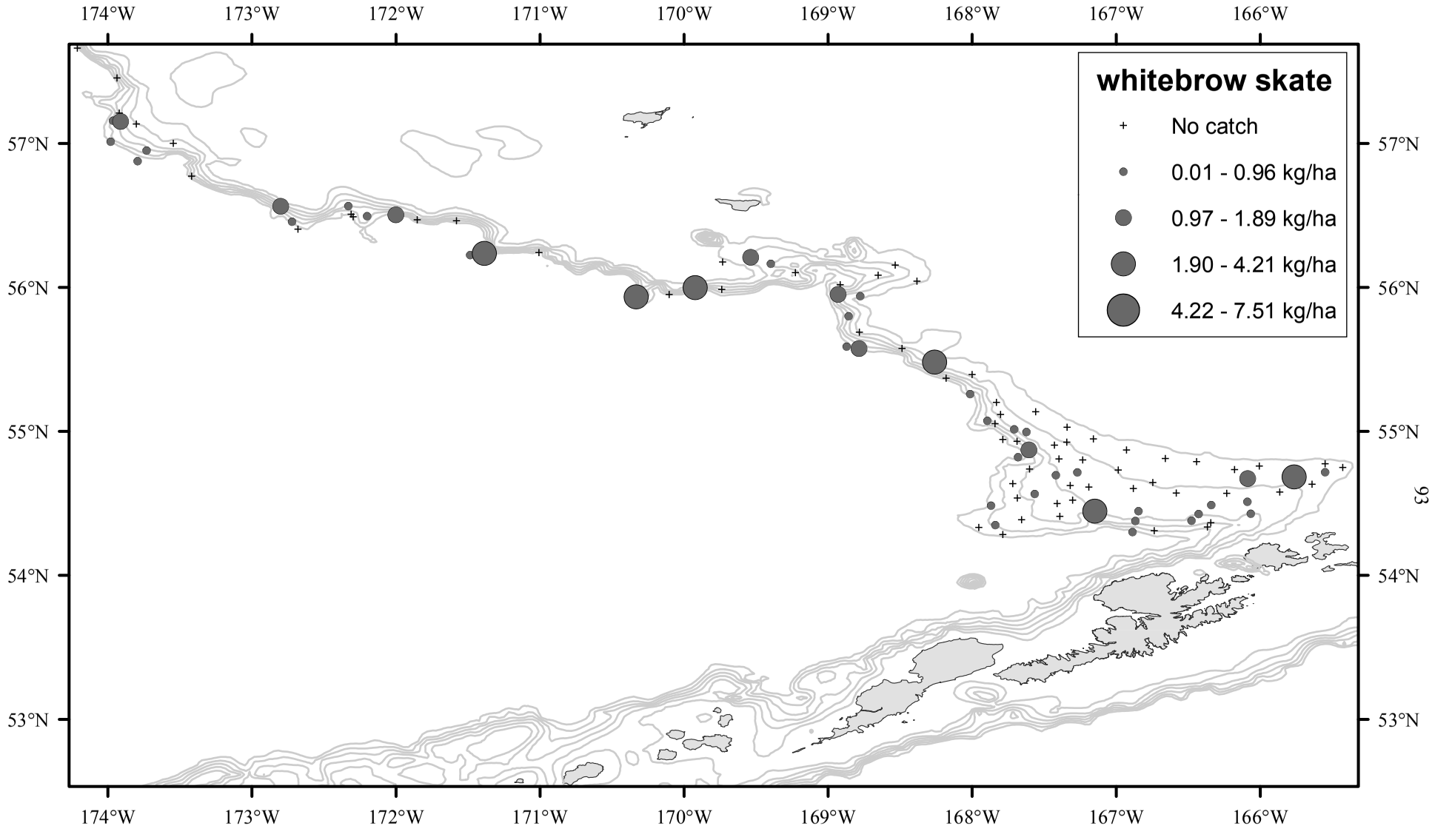


**Figure 16.** - - Continued.

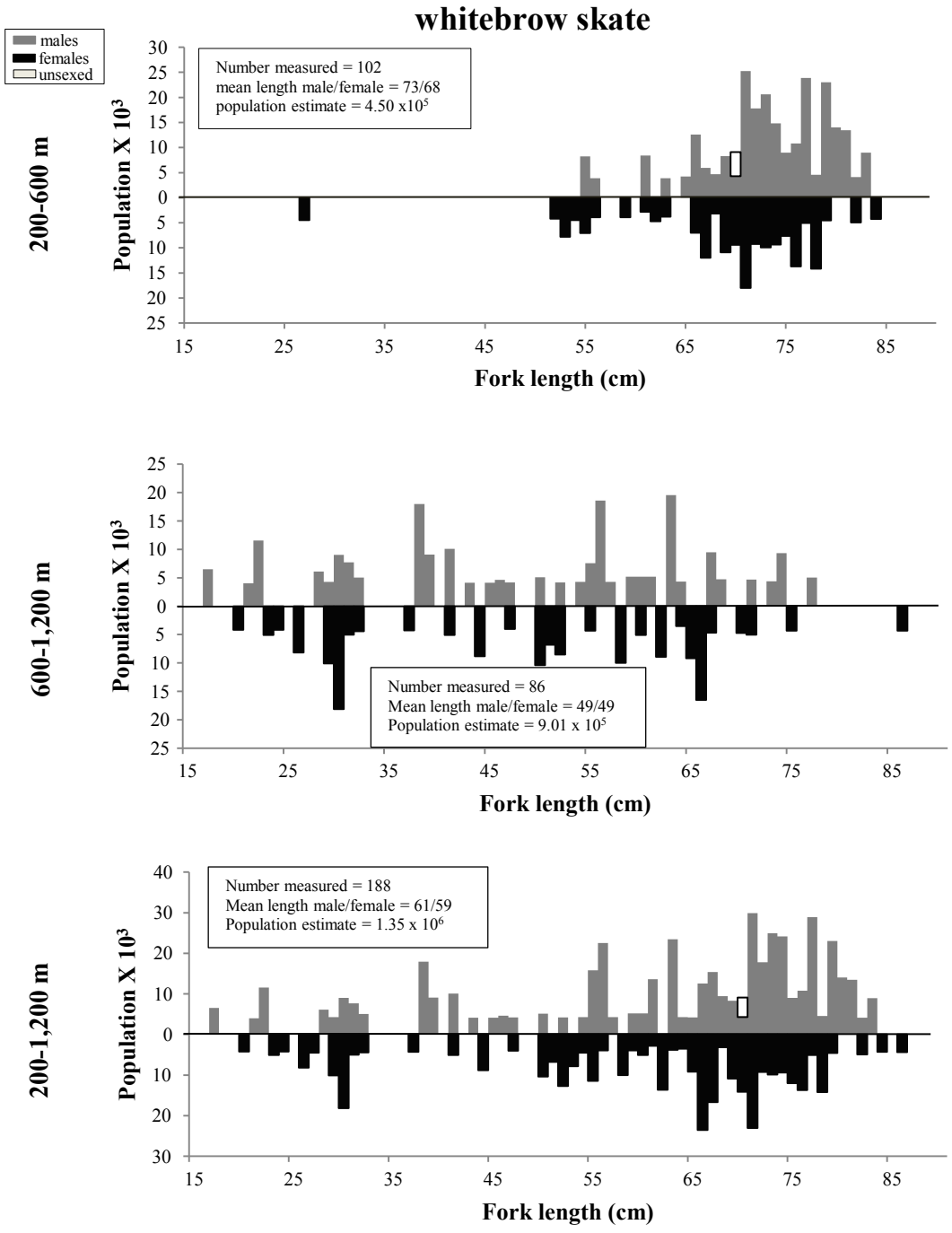


**Figure 17.** - - Size composition of the estimated whitebrow skate population from the 2012 EBSS survey for all subareas by depth.

**Table 16. - -** Abundance estimates by subarea and depth stratum for whitebrow skate (*Bathyraja minispinosa* ) from the 2012 EBSS survey.

***Bathyraja minispinosa*** **whitebrow skate**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 1.71E+02 | 5.99E+04 | 8.66E+03 | 1.13E+09 | 4.26E-01 | 1.49E-01 |
| | 400-600 | 1.55E+02 | 6.74E+04 | 2.36E+03 | 4.47E+08 | 3.81E-01 | 1.66E-01 |
| | 600-800 | 7.62E+01 | 4.72E+04 | 1.01E+03 | 2.25E+08 | 4.37E-01 | 2.71E-01 |
| | 800-1,000 | 6.20E-01 | 4.43E+03 | 3.84E-01 | 1.96E+07 | 4.57E-03 | 3.27E-02 |
| | 1,000-1,200 | 8.78E+00 | 4.59E+04 | 1.96E+01 | 4.29E+08 | 7.93E-02 | 4.15E-01 |
| 2 | 200-400 | 5.47E+01 | 1.87E+04 | 1.72E+03 | 1.85E+08 | 4.72E-01 | 1.62E-01 |
| | 400-600 | 3.28E+01 | 1.44E+04 | 4.15E+02 | 8.89E+07 | 4.65E-01 | 2.05E-01 |
| | 600-800 | 3.67E+01 | 3.33E+04 | 3.72E+02 | 3.07E+08 | 6.21E-01 | 5.64E-01 |
| | 800-1,000 | 7.86E+01 | 6.57E+04 | 1.13E+03 | 4.61E+08 | 1.42E+00 | 1.19E+00 |
| | 1,000-1,200 | 7.59E+00 | 4.68E+03 | 5.76E+01 | 2.19E+07 | 1.42E-01 | 8.74E-02 |
| 3 | 200-400 | 2.34E+01 | 8.68E+03 | 5.49E+02 | 7.53E+07 | 2.59E-01 | 9.60E-02 |
| | 400-600 | 5.23E+01 | 1.98E+04 | 1.05E+03 | 1.47E+08 | 5.91E-01 | 2.23E-01 |
| | 600-800 | 7.75E+01 | 5.62E+04 | 9.63E+02 | 2.86E+08 | 8.51E-01 | 6.18E-01 |
| | 800-1,000 | 1.43E+01 | 1.40E+04 | 7.10E+01 | 7.90E+07 | 1.96E-01 | 1.91E-01 |
| | 1,000-1,200 | 8.75E-01 | 8.92E+03 | 2.78E-01 | 2.65E+07 | 1.30E-02 | 1.32E-01 |
| 4 | 200-400 | 1.34E+01 | 4.86E+03 | 1.80E+02 | 2.36E+07 | 1.08E-01 | 3.93E-02 |
| | 400-600 | 1.92E+02 | 1.09E+05 | 9.02E+03 | 1.35E+09 | 2.62E+00 | 1.50E+00 |
| | 600-800 | 1.17E+01 | 1.84E+04 | 5.81E+01 | 6.64E+07 | 1.68E-01 | 2.66E-01 |
| | 800-1,000 | 1.37E+00 | 1.69E+04 | 1.43E+00 | 8.33E+07 | 1.93E-02 | 2.39E-01 |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | | | | | | |
| | 400-600 | 4.75E+01 | 2.61E+04 | 5.47E+02 | 1.61E+08 | 1.12E+00 | 6.13E-01 |
| | 600-800 | 9.30E+00 | 2.73E+04 | 2.36E+01 | 1.93E+08 | 2.15E-01 | 6.33E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | 2.26E+00 | 2.31E+04 | 5.12E+00 | 5.33E+08 | 3.97E-02 | 4.05E-01 |
| 6 | 200-400 | 9.82E+01 | 4.66E+04 | 1.27E+03 | 2.79E+08 | 3.78E-01 | 1.79E-01 |
| | 400-600 | 1.51E+02 | 7.42E+04 | 1.00E+04 | 2.06E+09 | 8.85E-01 | 4.35E-01 |
| | 600-800 | 1.47E+01 | 3.72E+04 | 9.46E+01 | 6.56E+08 | 1.60E-01 | 4.05E-01 |
| | 800-1,000 | 3.62E+00 | 8.20E+03 | 1.31E+01 | 6.73E+07 | 5.61E-02 | 1.27E-01 |
| | 1,000-1,200 | 2.01E+00 | 5.55E+03 | 4.04E+00 | 3.08E+07 | 4.05E-02 | 1.12E-01 |
| **1-6** | **200-1,200** | **1.34E+03** | **8.67E+05** | **3.96E+04** | **9.44E+09** | **4.25E-01** | **2.75E-01** |

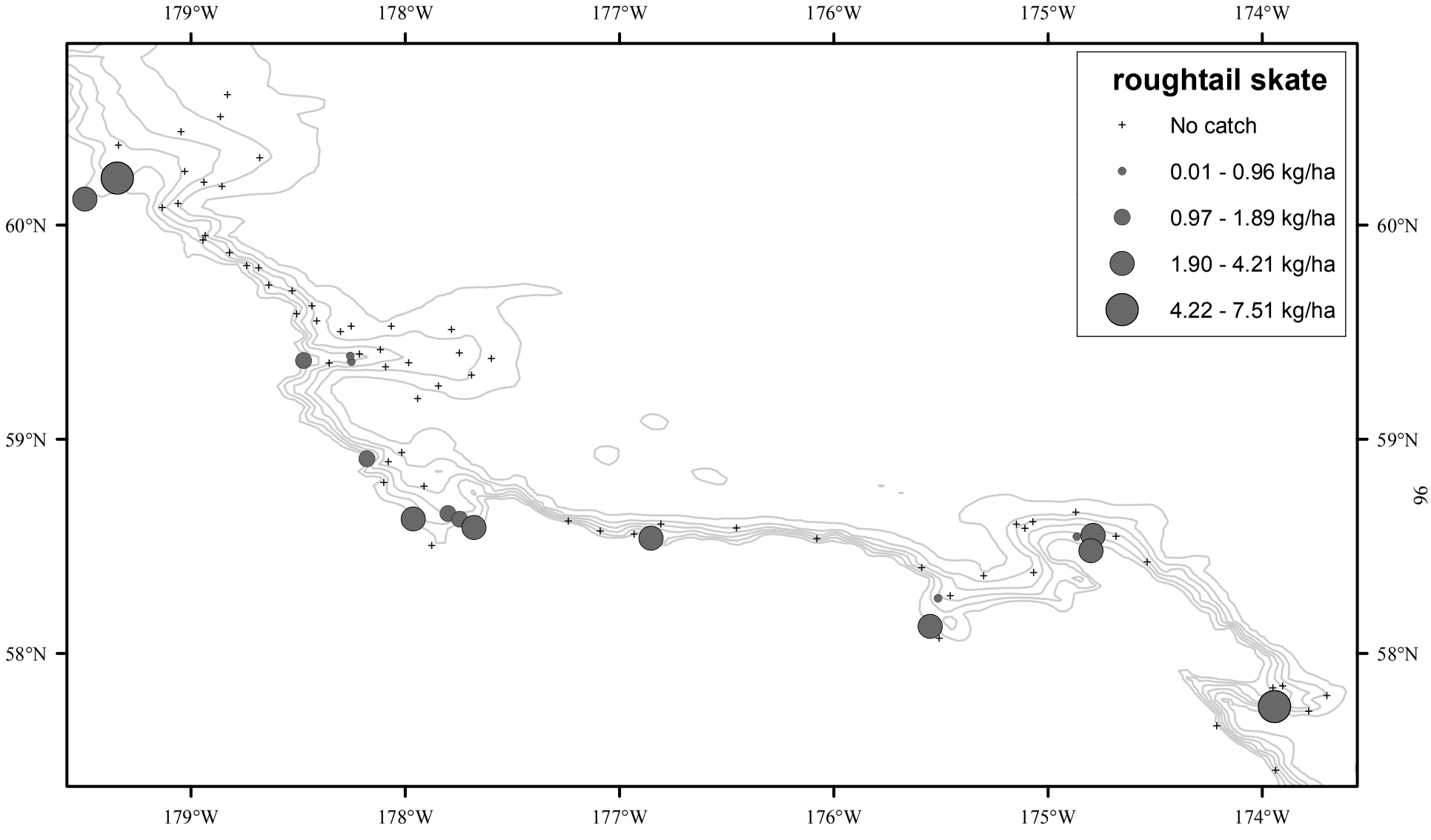


**Figure 18.** - - Distribution and relative abundance of roughtail skate from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

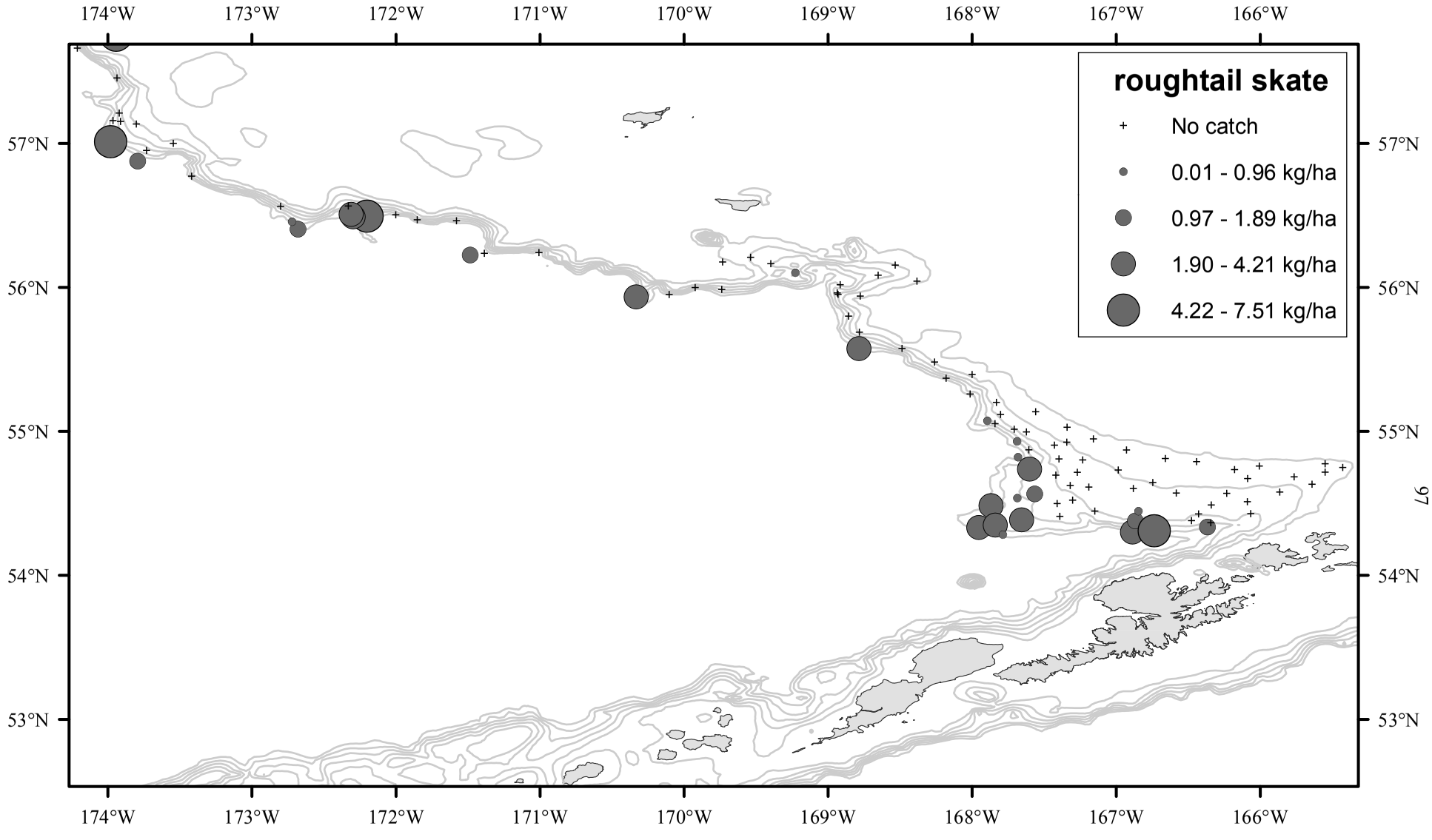


**Figure 18.** - - Continued.

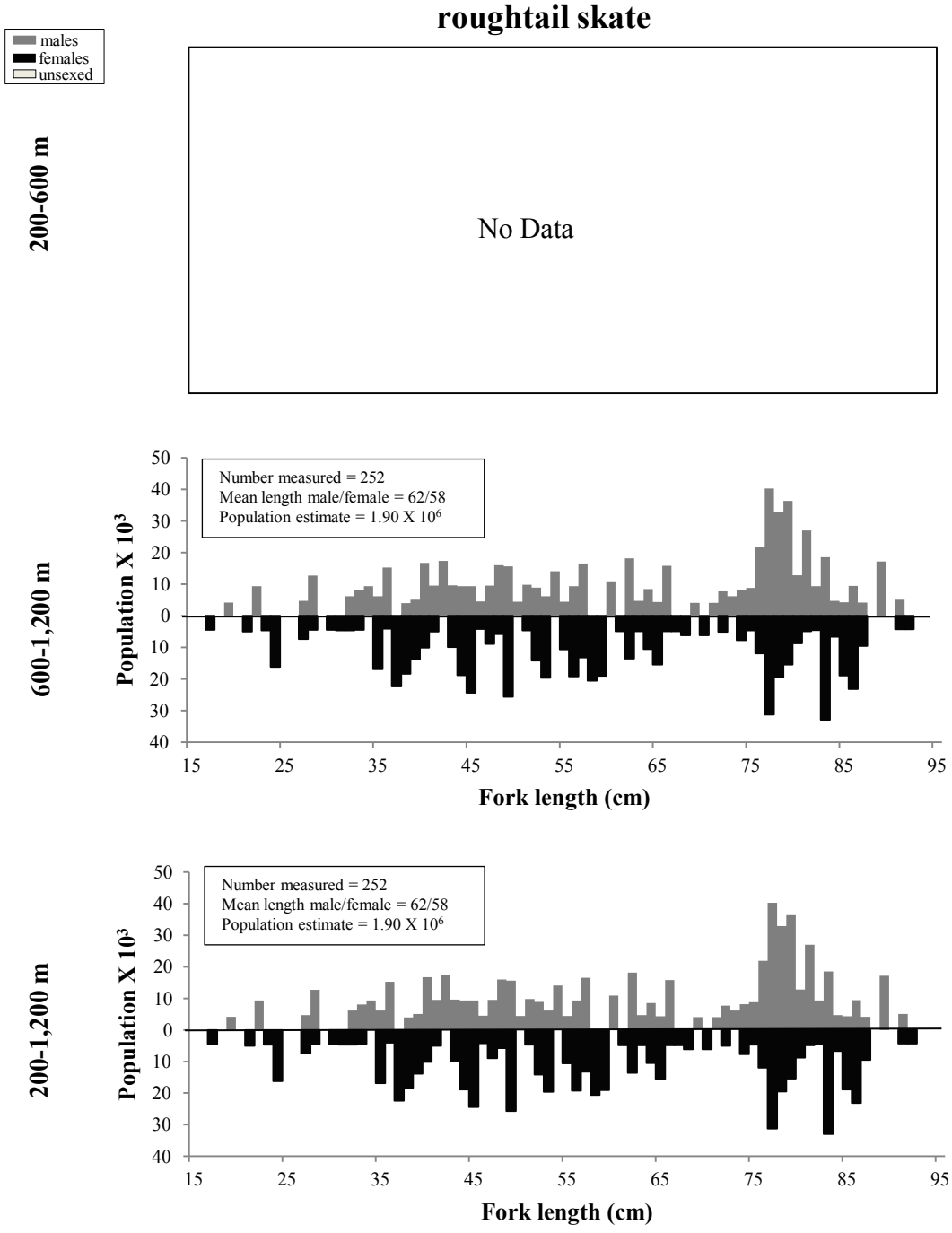


**Figure 19.** - - Size composition of the estimated roughtail skate population from the 2012 EBSS survey for all subareas by depth.

**Table 17. - -** Abundance estimates by subarea and depth stratum for roughtail skate (*Bathyraja trachura* ) from the 2012 EBSS survey.

***Bathyraja trachura*** **roughtail skate**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| | **200-400** | | | | | | |
| | **400-600** | 5.82E+00 | 4.22E+03 | 3.39E+01 | 1.78E+07 | 1.43E-02 | 1.04E-02 |
| **1** | **600-800** | 6.02E+01 | 1.76E+04 | 7.82E+02 | 5.19E+07 | 3.46E-01 | 1.01E-01 |
| | **800-1,000** | 4.38E+02 | 1.46E+05 | 1.81E+04 | 1.60E+09 | 3.23E+00 | 1.08E+00 |
| | **1,000-1,200** | 3.94E+02 | 2.55E+05 | 2.40E+04 | 1.95E+10 | 3.56E+00 | 2.30E+00 |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **2** | **600-800** | | | | | | |
| | **800-1,000** | 7.55E+01 | 2.93E+04 | 1.43E+03 | 2.70E+08 | 1.37E+00 | 5.30E-01 |
| | **1,000-1,200** | 1.47E+02 | 8.10E+04 | 1.95E+04 | 5.20E+09 | 2.74E+00 | 1.51E+00 |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **3** | **600-800** | 1.26E+01 | 4.15E+03 | 1.59E+02 | 1.72E+07 | 1.38E-01 | 4.55E-02 |
| | **800-1,000** | 1.71E+02 | 1.38E+05 | 5.09E+03 | 6.65E+09 | 2.34E+00 | 1.89E+00 |
| | **1,000-1,200** | 1.70E+02 | 1.24E+05 | 2.91E+03 | 1.17E+09 | 2.52E+00 | 1.84E+00 |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **4** | **600-800** | 4.48E+01 | 1.48E+04 | 1.05E+03 | 1.19E+08 | 6.45E-01 | 2.13E-01 |
| | **800-1,000** | 1.70E+02 | 5.11E+04 | 6.03E+03 | 4.92E+08 | 2.40E+00 | 7.22E-01 |
| | **1,000-1,200** | 6.68E+01 | 2.08E+04 | 4.46E+03 | 4.31E+08 | 1.01E+00 | 3.13E-01 |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **5** | **600-800** | 6.50E+01 | 2.73E+04 | 1.59E+03 | 1.93E+08 | 1.50E+00 | 6.33E-01 |
| | **800-1,000** | 4.22E+01 | 2.90E+04 | 4.75E+02 | 2.63E+08 | 7.65E-01 | 5.25E-01 |
| | **1,000-1,200** | 1.20E+02 | 7.57E+04 | 4.02E+03 | 1.64E+09 | 2.10E+00 | 1.33E+00 |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **6** | **600-800** | 2.56E+00 | 8.38E+03 | 6.58E+00 | 7.02E+07 | 2.80E-02 | 9.13E-02 |
| | **800-1,000** | 8.30E+01 | 3.30E+04 | 5.01E+03 | 7.75E+08 | 1.29E+00 | 5.12E-01 |
| | **1,000-1,200** | 2.30E+02 | 2.21E+05 | 1.94E+04 | 1.05E+10 | 4.64E+00 | 4.45E+00 |
| **1-6** | **200-1,200** | **2.30E+03** | **1.28E+06** | **1.14E+05** | **4.90E+10** | **6.66E-01** | **3.78E-01** |

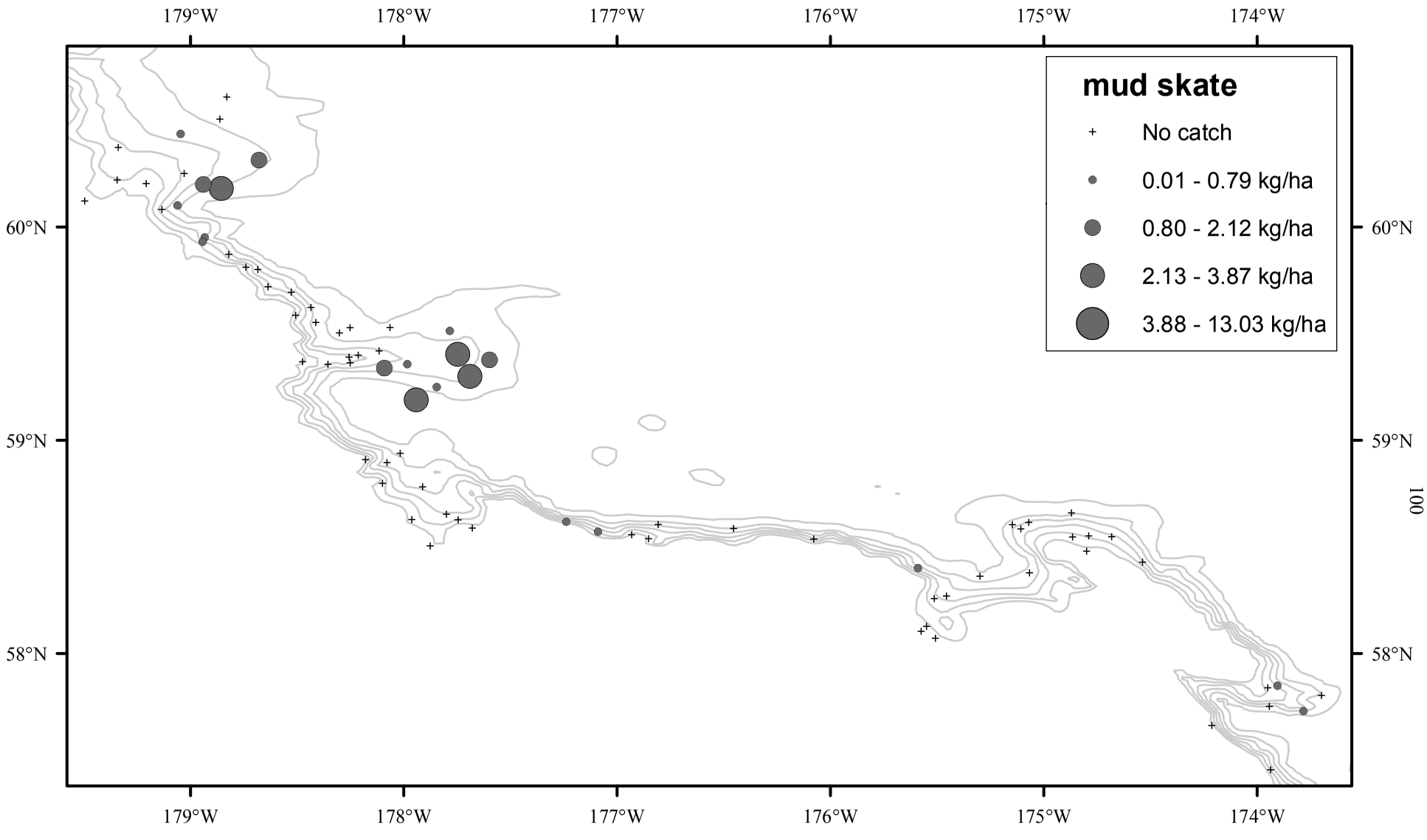


**Figure 20.** - - Distribution and relative abundance of mud skate from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

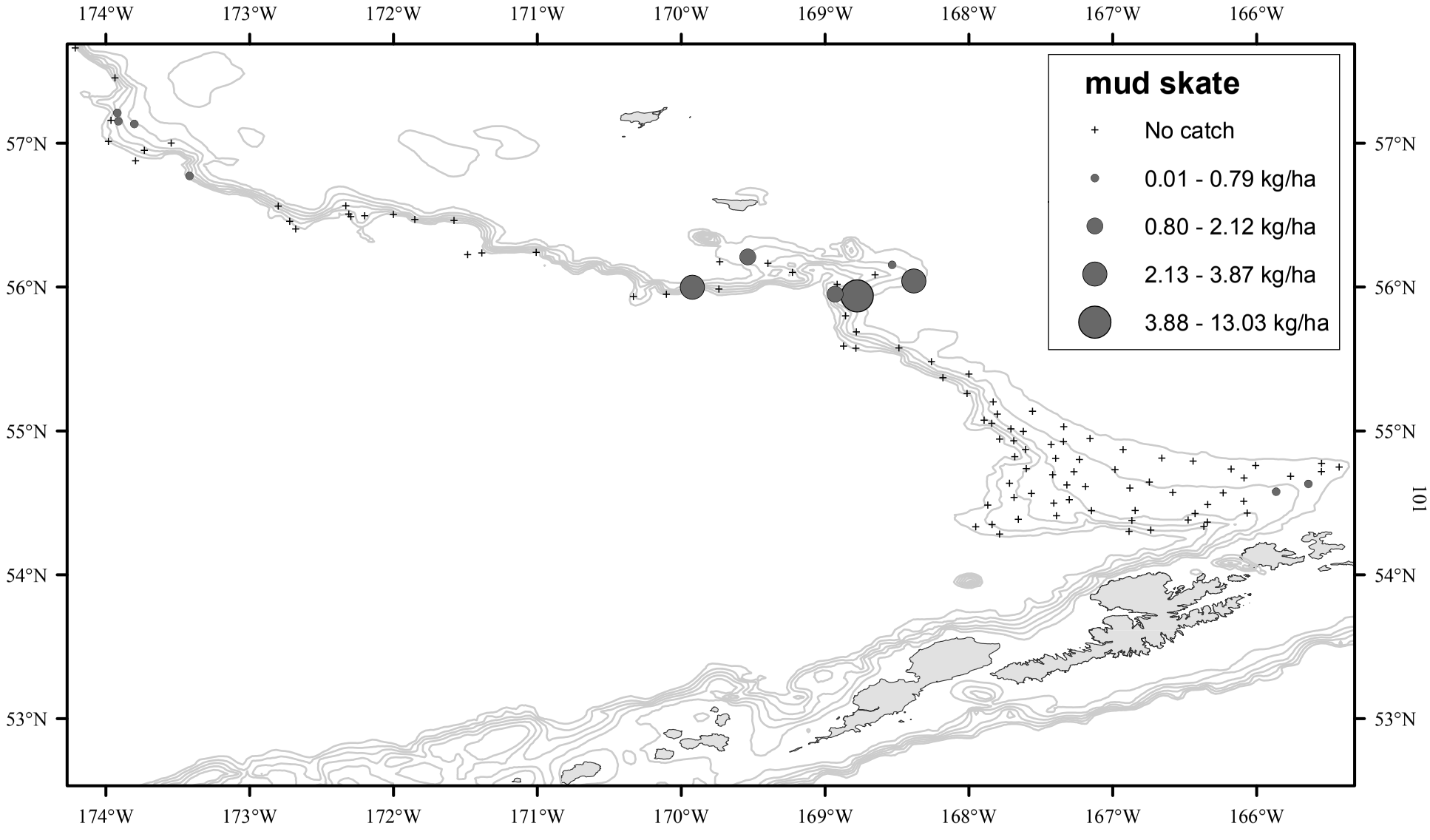


**Figure 20.** - - Continued.

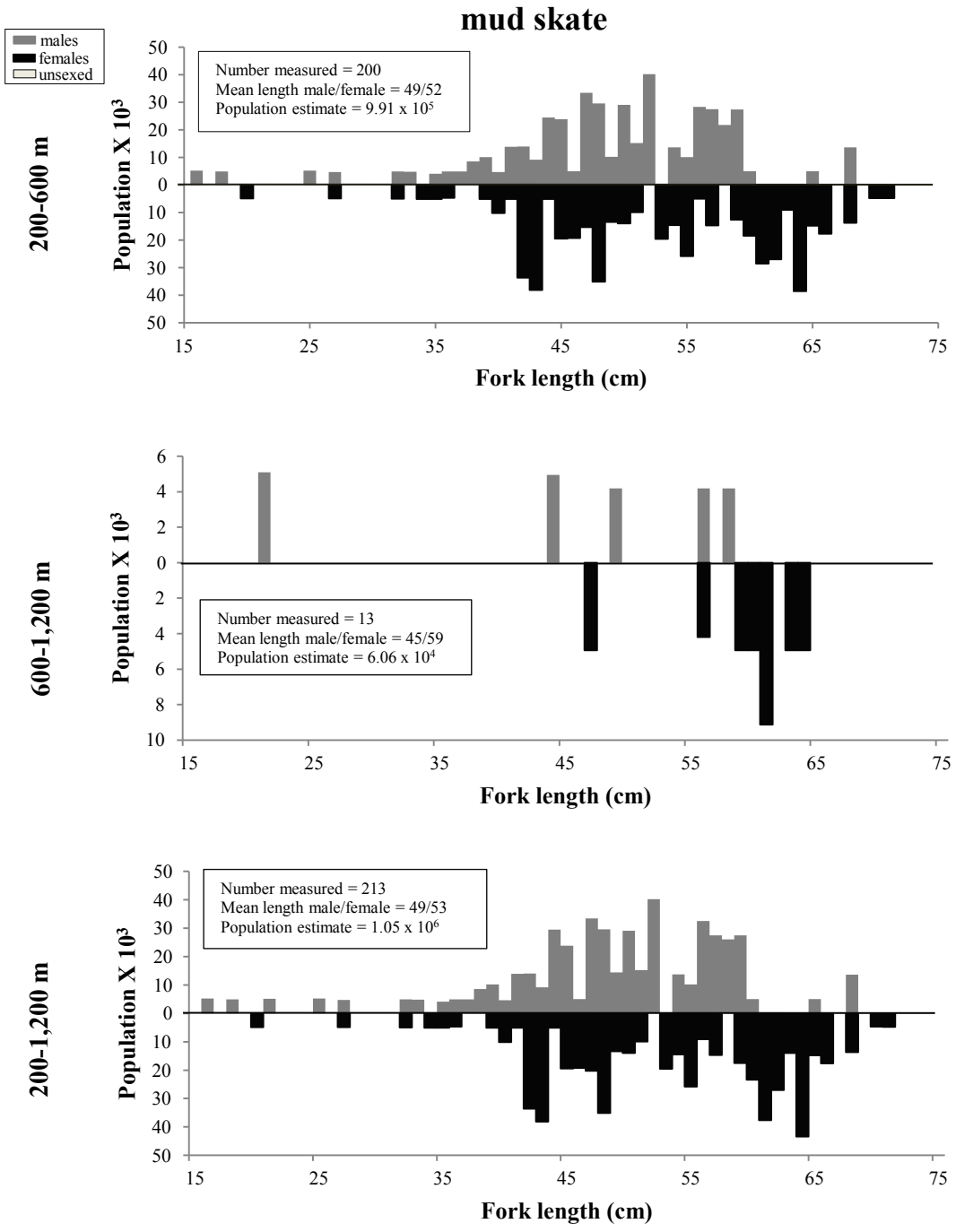


**Figure 21.** - - Size composition of the estimated mud skate population from the 2012 EBSS survey for all subareas by depth.

**Table 18. - -** Abundance estimates by subarea and depth stratum for mud skate (*Bathyraja taranetzi* ) from the 2012 EBSS survey.

***Bathyraja taranetzi*** **mud skate**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | **200-400** | 8.88E+00 | 1.10E+04 | 7.89E+01 | 1.22E+08 | 2.21E-02 | 2.75E-02 |
| | **400-600** | 1.28E+01 | 8.77E+03 | 1.63E+02 | 7.70E+07 | 3.14E-02 | 2.16E-02 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 2 | **200-400** | 3.60E+02 | 4.23E+05 | 5.63E+04 | 1.14E+11 | 3.11E+00 | 3.65E+00 |
| | **400-600** | 3.74E+01 | 6.94E+04 | 1.40E+03 | 4.82E+09 | 5.31E-01 | 9.85E-01 |
| | **600-800** | 3.86E+01 | 3.46E+04 | 1.49E+03 | 1.20E+09 | 6.53E-01 | 5.85E-01 |
| | **800-1,000** | 2.24E-01 | 5.09E+03 | 5.02E-02 | 2.59E+07 | 4.05E-03 | 9.21E-02 |
| | **1,000-1,200** | | | | | | |
| 3 | **200-400** | 1.02E+01 | 4.72E+03 | 1.04E+02 | 2.23E+07 | 1.13E-01 | 5.22E-02 |
| | **400-600** | 2.72E+01 | 1.92E+04 | 1.49E+02 | 7.39E+07 | 3.07E-01 | 2.17E-01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 4 | **200-400** | 1.99E+01 | 1.91E+04 | 1.67E+02 | 2.04E+08 | 1.61E-01 | 1.54E-01 |
| | **400-600** | 3.78E+00 | 1.23E+04 | 1.43E+01 | 1.52E+08 | 5.18E-02 | 1.69E-01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 5 | **200-400** | 4.56E+00 | 2.68E+03 | 2.08E+01 | 7.18E+06 | 1.08E-01 | 6.32E-02 |
| | **400-600** | 8.45E+00 | 5.49E+03 | 7.14E+01 | 3.01E+07 | 1.98E-01 | 1.29E-01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 6 | **200-400** | 2.47E+02 | 3.12E+05 | 7.72E+03 | 1.77E+10 | 9.53E-01 | 1.20E+00 |
| | **400-600** | 6.90E+01 | 1.03E+05 | 1.55E+03 | 1.86E+09 | 4.04E-01 | 6.04E-01 |
| | **600-800** | 1.78E+01 | 2.09E+04 | 3.15E+02 | 4.38E+08 | 1.94E-01 | 2.28E-01 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **8.66E+02** | **1.05E+06** | **6.96E+04** | **1.41E+11** | **2.62E-01** | **3.19E-01** |

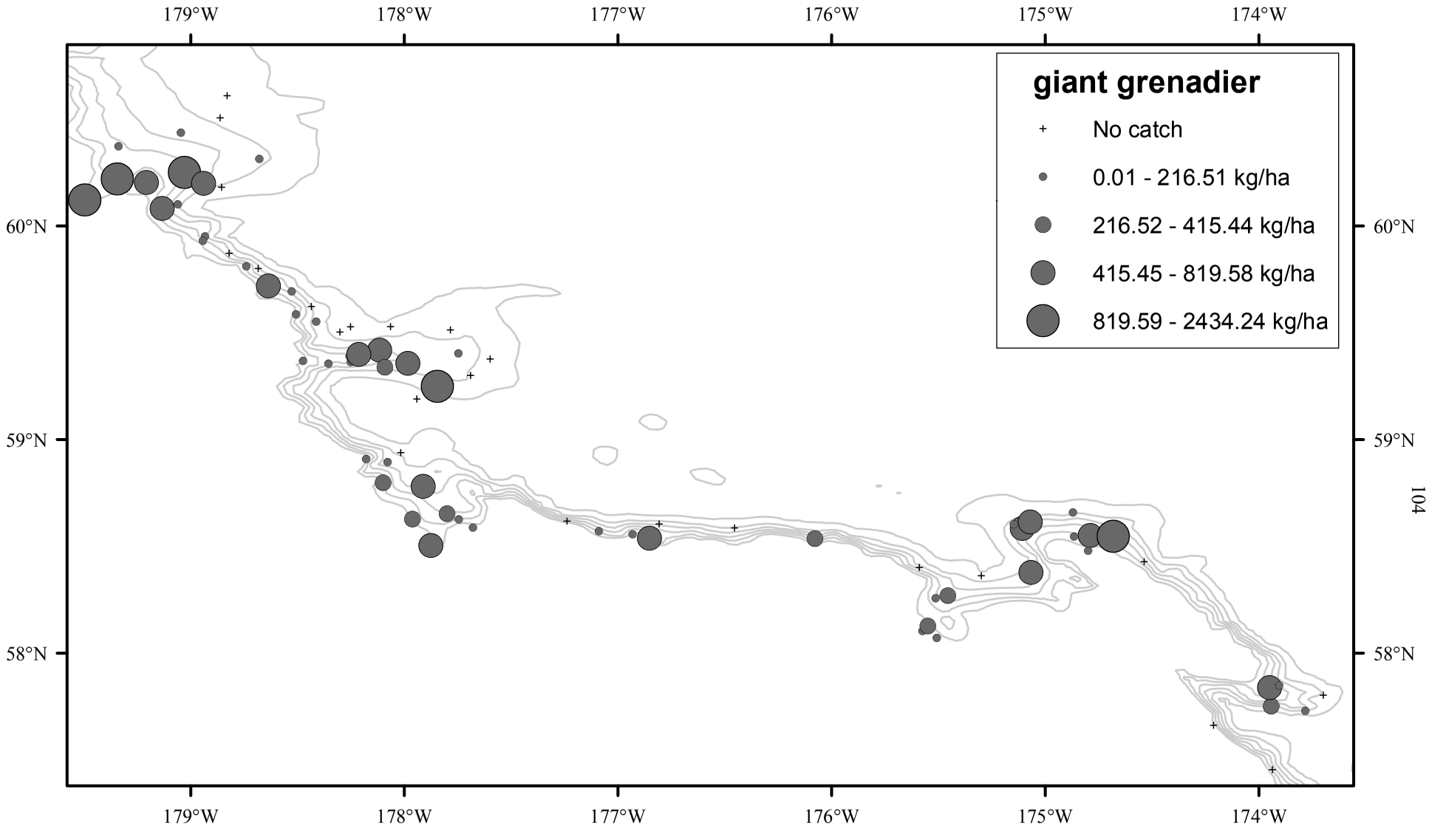


**Figure 22.** - - Distribution and relative abundance of giant grenadier from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

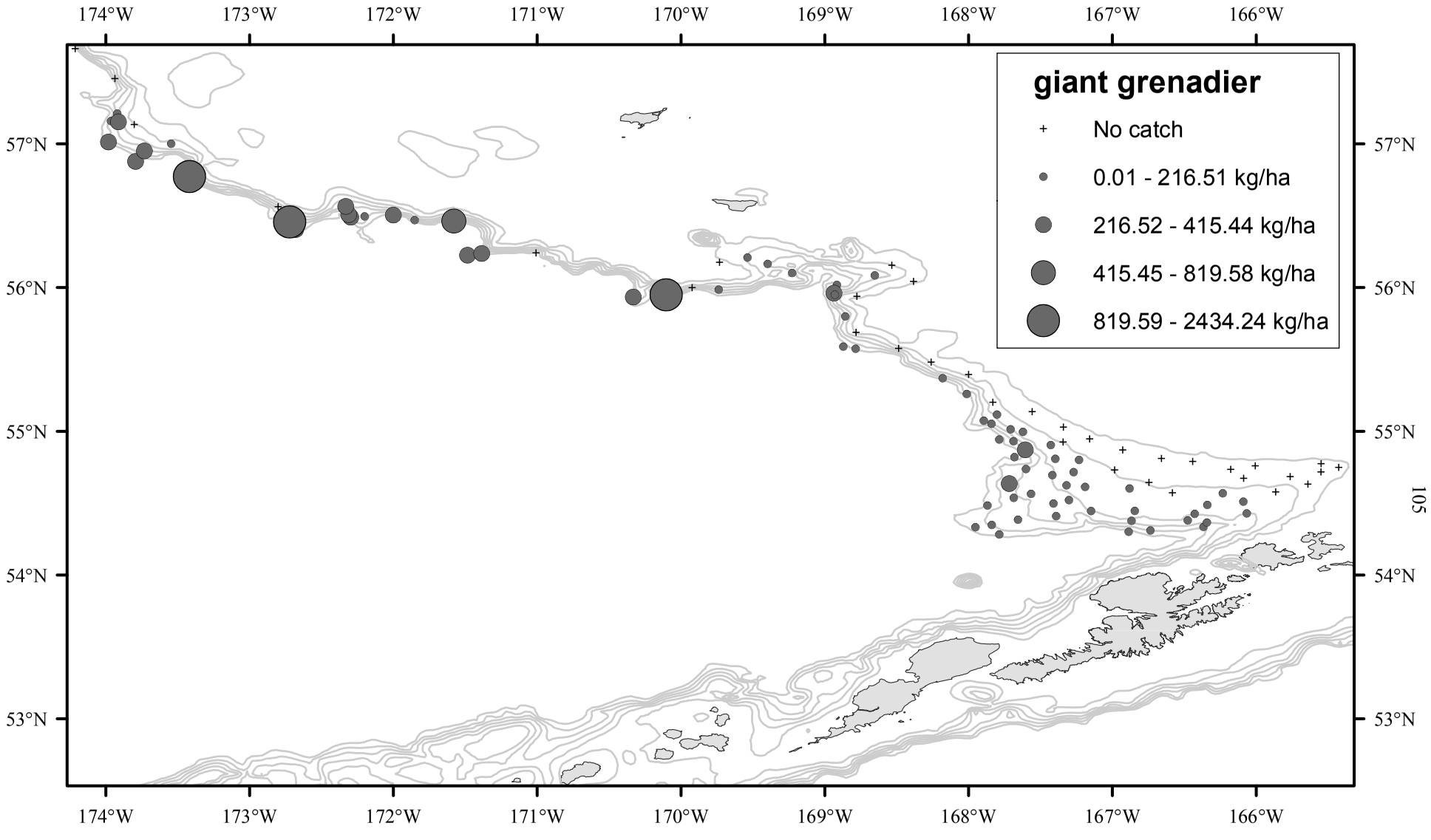


**Figure 22.** - - Continued.

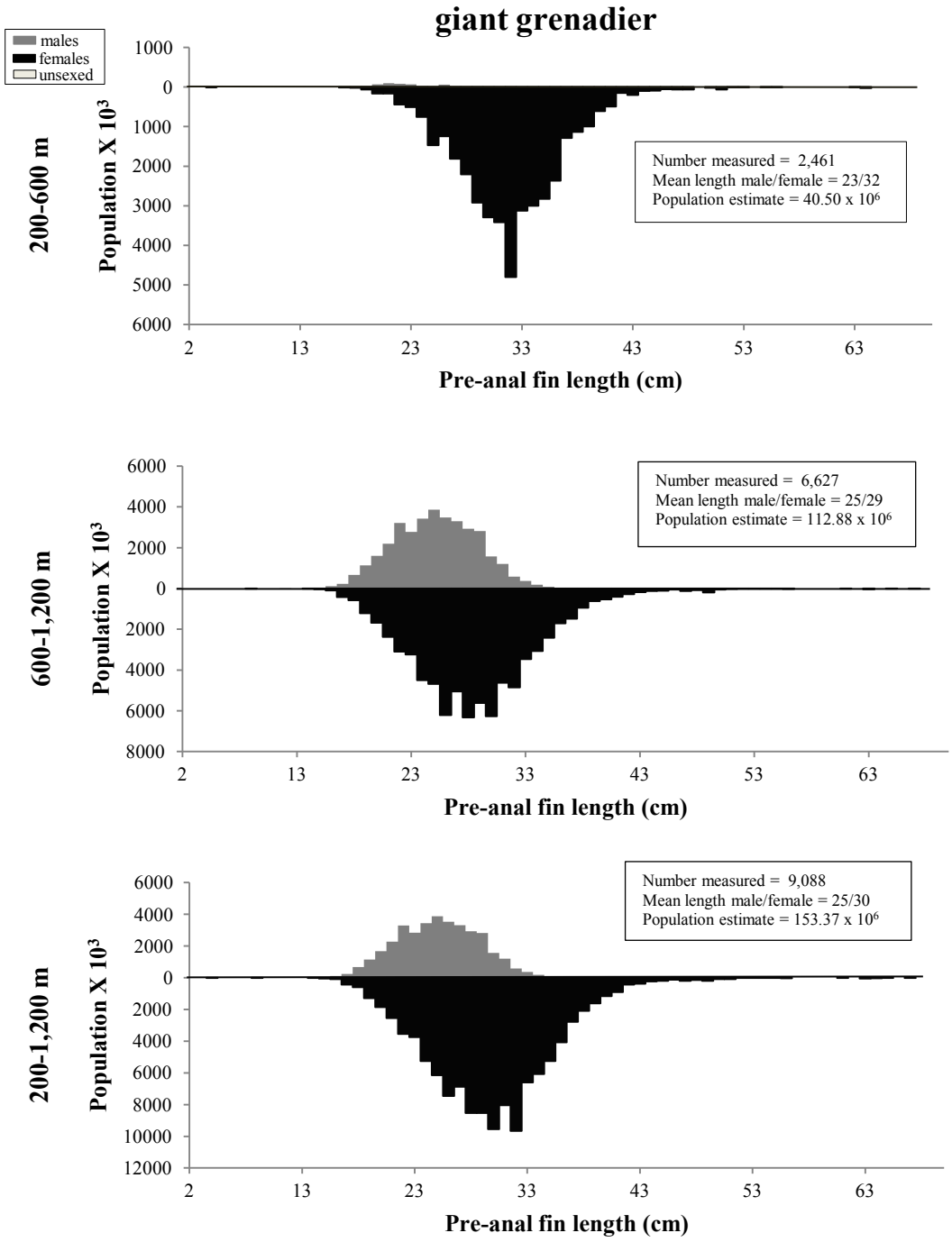


**Figure 23.** - - Size composition of the estimated giant grenadier population from the 2012 EBSS survey for all subareas by depth.

**Table 19. - -** Abundance estimates by subarea and depth stratum for giant grenadier (*Albatrossia pectoralis* ) from the 2012 EBSS survey.

***Albatrossia pectoralis*** **giant grenadier**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| | **200-400** | | | | | | |
| | **400-600** | 1.83E+04 | 4.91E+06 | 1.82E+07 | 1.49E+12 | 4.50E+01 | 1.21E+01 |
| **1** | **600-800** | 1.63E+04 | 5.07E+06 | 1.73E+07 | 1.34E+12 | 9.33E+01 | 2.91E+01 |
| | **800-1,000** | 1.89E+04 | 7.30E+06 | 1.62E+07 | 2.99E+12 | 1.39E+02 | 5.39E+01 |
| | **1,000-1,200** | 1.35E+04 | 5.94E+06 | 3.83E+06 | 1.02E+12 | 1.22E+02 | 5.36E+01 |
| | **200-400** | | | | | | |
| | **400-600** | 2.24E+04 | 4.03E+06 | 3.03E+08 | 9.67E+12 | 3.17E+02 | 5.71E+01 |
| **2** | **600-800** | 1.22E+03 | 3.14E+05 | 2.52E+04 | 7.58E+09 | 2.06E+01 | 5.31E+00 |
| | **800-1,000** | 1.75E+04 | 4.44E+06 | 1.52E+07 | 8.82E+10 | 3.17E+02 | 8.04E+01 |
| | **1,000-1,200** | 1.34E+03 | 5.30E+05 | 8.17E+05 | 1.04E+11 | 2.50E+01 | 9.89E+00 |
| | **200-400** | 3.91E+03 | 7.66E+05 | 1.53E+07 | 5.86E+11 | 4.33E+01 | 8.47E+00 |
| | **400-600** | 4.27E+04 | 9.47E+06 | 2.14E+08 | 8.44E+12 | 4.82E+02 | 1.07E+02 |
| **3** | **600-800** | 3.61E+04 | 9.50E+06 | 2.65E+08 | 1.13E+13 | 3.97E+02 | 1.04E+02 |
| | **800-1,000** | 2.16E+04 | 6.65E+06 | 2.18E+07 | 3.27E+12 | 2.95E+02 | 9.09E+01 |
| | **1,000-1,200** | 1.84E+04 | 5.08E+06 | 6.18E+06 | 4.50E+11 | 2.72E+02 | 7.52E+01 |
| | **200-400** | 2.99E+03 | 4.78E+05 | 8.48E+06 | 2.11E+11 | 2.42E+01 | 3.86E+00 |
| | **400-600** | 2.35E+04 | 4.82E+06 | 7.03E+07 | 3.36E+12 | 3.22E+02 | 6.60E+01 |
| **4** | **600-800** | 3.97E+04 | 1.02E+07 | 1.01E+08 | 7.01E+12 | 5.72E+02 | 1.46E+02 |
| | **800-1,000** | 1.74E+04 | 5.11E+06 | 4.87E+07 | 3.47E+12 | 2.46E+02 | 7.22E+01 |
| | **1,000-1,200** | 7.17E+03 | 1.97E+06 | 2.75E+06 | 1.06E+11 | 1.08E+02 | 2.97E+01 |
| | **200-400** | | | | | | |
| | **400-600** | 7.96E+03 | 1.74E+06 | 2.10E+07 | 1.20E+12 | 1.87E+02 | 4.09E+01 |
| **5** | **600-800** | 1.42E+04 | 3.41E+06 | 6.33E+06 | 6.37E+11 | 3.29E+02 | 7.91E+01 |
| | **800-1,000** | 6.99E+03 | 2.82E+06 | 3.27E+06 | 7.43E+11 | 1.27E+02 | 5.11E+01 |
| | **1,000-1,200** | 1.61E+04 | 5.67E+06 | 3.47E+07 | 4.67E+12 | 2.82E+02 | 9.94E+01 |
| | **200-400** | 1.00E+03 | 1.88E+05 | 5.69E+05 | 2.20E+10 | 3.87E+00 | 7.25E-01 |
| | **400-600** | 6.88E+04 | 1.41E+07 | 5.56E+08 | 2.12E+13 | 4.03E+02 | 8.27E+01 |
| **6** | **600-800** | 4.02E+04 | 1.24E+07 | 1.17E+08 | 1.21E+13 | 4.39E+02 | 1.35E+02 |
| | **800-1,000** | 4.61E+04 | 1.59E+07 | 1.37E+09 | 1.56E+14 | 7.14E+02 | 2.47E+02 |
| | **1,000-1,200** | 2.90E+04 | 1.06E+07 | 2.03E+08 | 2.74E+13 | 5.85E+02 | 2.14E+02 |
| **1-6** | **200-1,200** | **5.53E+05** | **1.53E+08** | **3.44E+09** | **2.78E+14** | **1.76E+02** | **4.84E+01** |

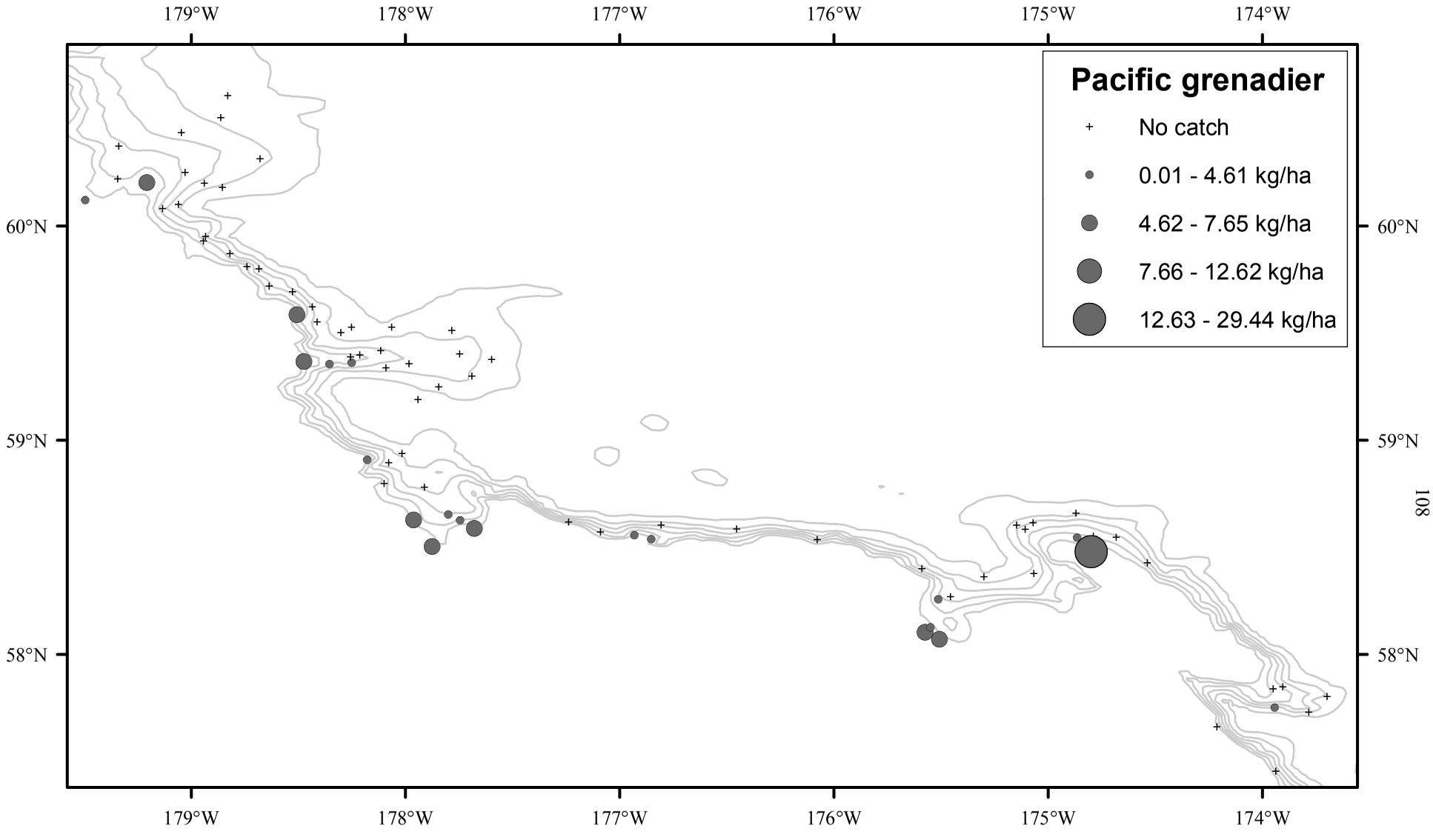




**Figure 24.** - - Distribution and relative abundance of Pacific grenadier from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

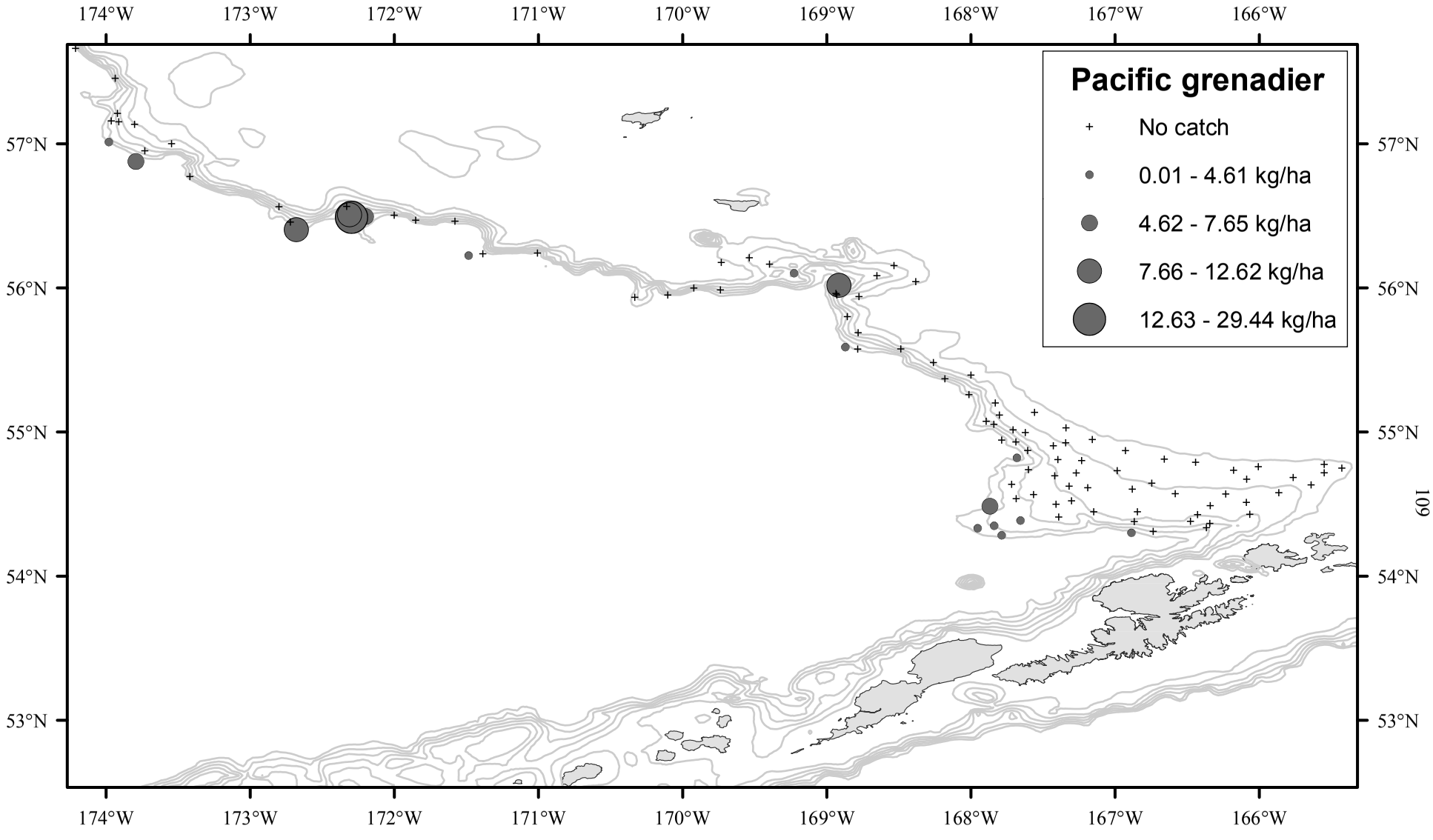


**Figure 24.** - - Continued.

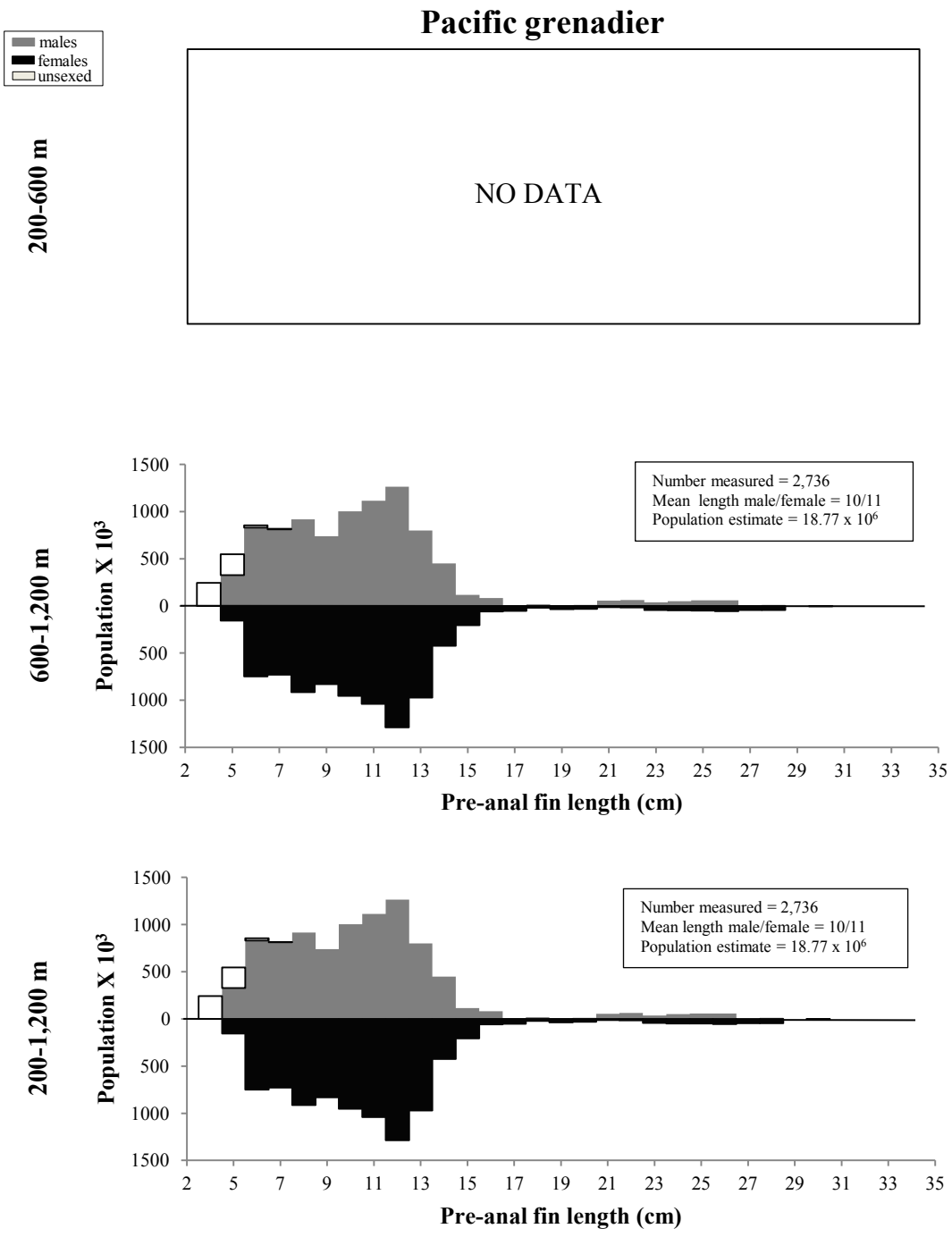


**Figure 25.** - - Size composition of the estimated Pacific grenadier population from the 2012 EBSS survey for all subareas by depth.

**Table 20. - -** Abundance estimates by subarea and depth stratum for Pacific grenadier (*Coryphaenoides acrolepis* ) from the 2012 EBSS survey.

***Coryphaenoides acrolepis*** **Pacific grenadier**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 7.87E+00 | 2.20E+04 | 4.94E+01 | 2.13E+08 | 5.81E-02 | 1.62E-01 |
| | 1,000-1,200 | 3.20E+02 | 1.18E+06 | 1.09E+04 | 2.37E+11 | 2.89E+00 | 1.06E+01 |
| 2 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | 2.40E+02 | 2.66E+05 | 4.77E+04 | 1.14E+10 | 4.48E+00 | 4.96E+00 |
| 3 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 2.19E+02 | 1.14E+06 | 3.35E+04 | 4.49E+11 | 2.98E+00 | 1.56E+01 |
| | 1,000-1,200 | 7.20E+02 | 2.68E+06 | 5.13E+04 | 3.71E+11 | 1.07E+01 | 3.97E+01 |
| 4 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | 6.92E-01 | 3.53E+03 | 4.79E-01 | 1.25E+07 | 9.98E-03 | 5.09E-02 |
| | 800-1,000 | 1.23E+02 | 7.12E+05 | 2.98E+03 | 3.49E+11 | 1.74E+00 | 1.01E+01 |
| | 1,000-1,200 | 9.53E+02 | 6.25E+06 | 2.49E+05 | 1.11E+13 | 1.44E+01 | 9.44E+01 |
| 5 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | 3.45E+01 | 2.71E+05 | 1.11E+03 | 6.16E+10 | 7.99E-01 | 6.27E+00 |
| | 800-1,000 | 1.11E+02 | 8.78E+05 | 6.98E+02 | 1.09E+11 | 2.01E+00 | 1.59E+01 |
| | 1,000-1,200 | 3.73E+02 | 2.57E+06 | 1.01E+03 | 7.74E+10 | 6.55E+00 | 4.51E+01 |
| 6 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 1.73E+02 | 1.05E+06 | 9.57E+03 | 2.36E+11 | 2.69E+00 | 1.63E+01 |
| | 1,000-1,200 | 2.95E+02 | 1.74E+06 | 1.16E+03 | 7.33E+10 | 5.94E+00 | 3.50E+01 |
| **1-6** | **200-1,200** | **3.57E+03** | **1.88E+07** | **4.09E+05** | **1.31E+13** | **1.01E+00** | **5.22E+00** |

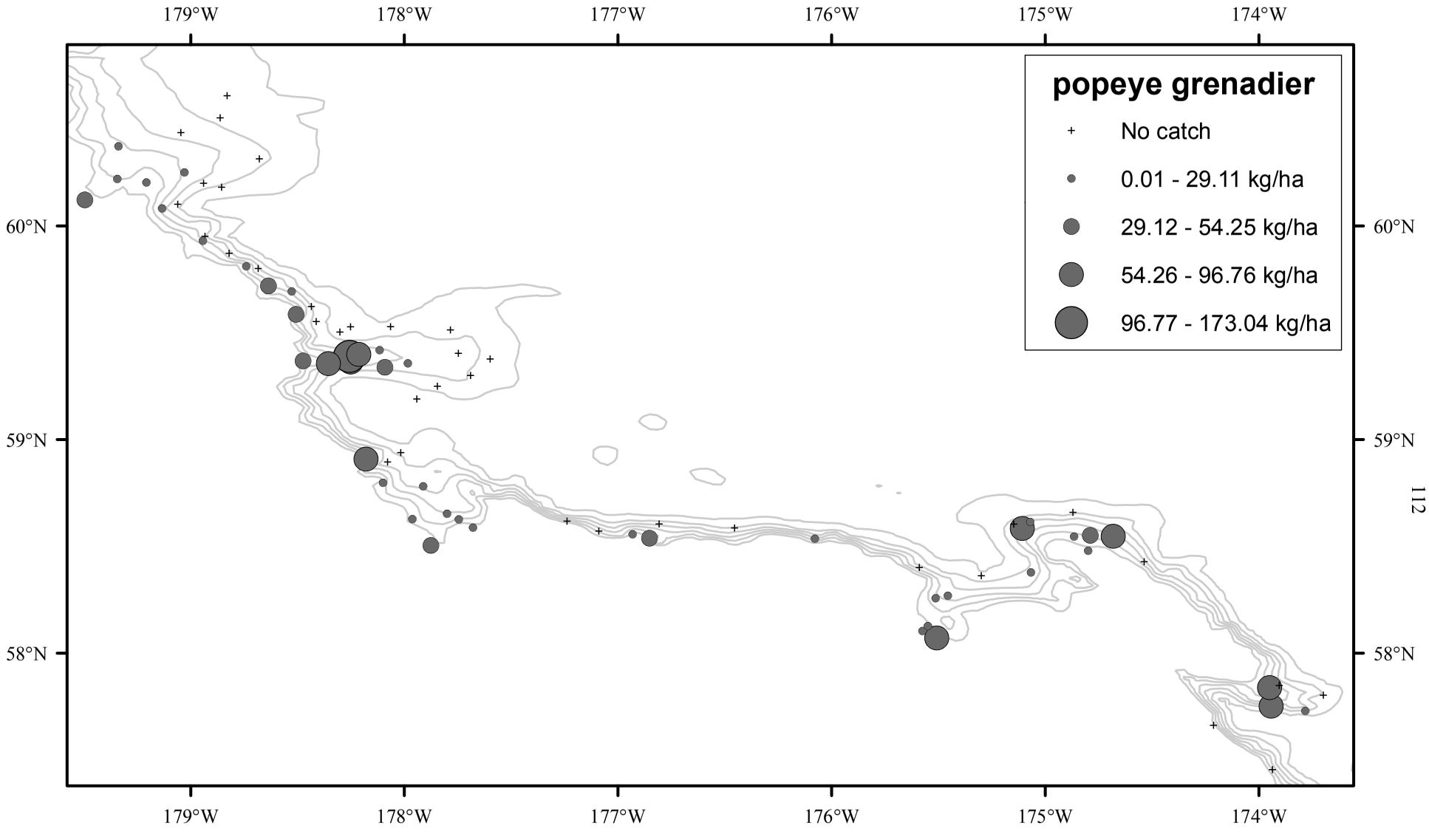


**Figure 26.** - - Distribution and relative abundance of popeye grenadier from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

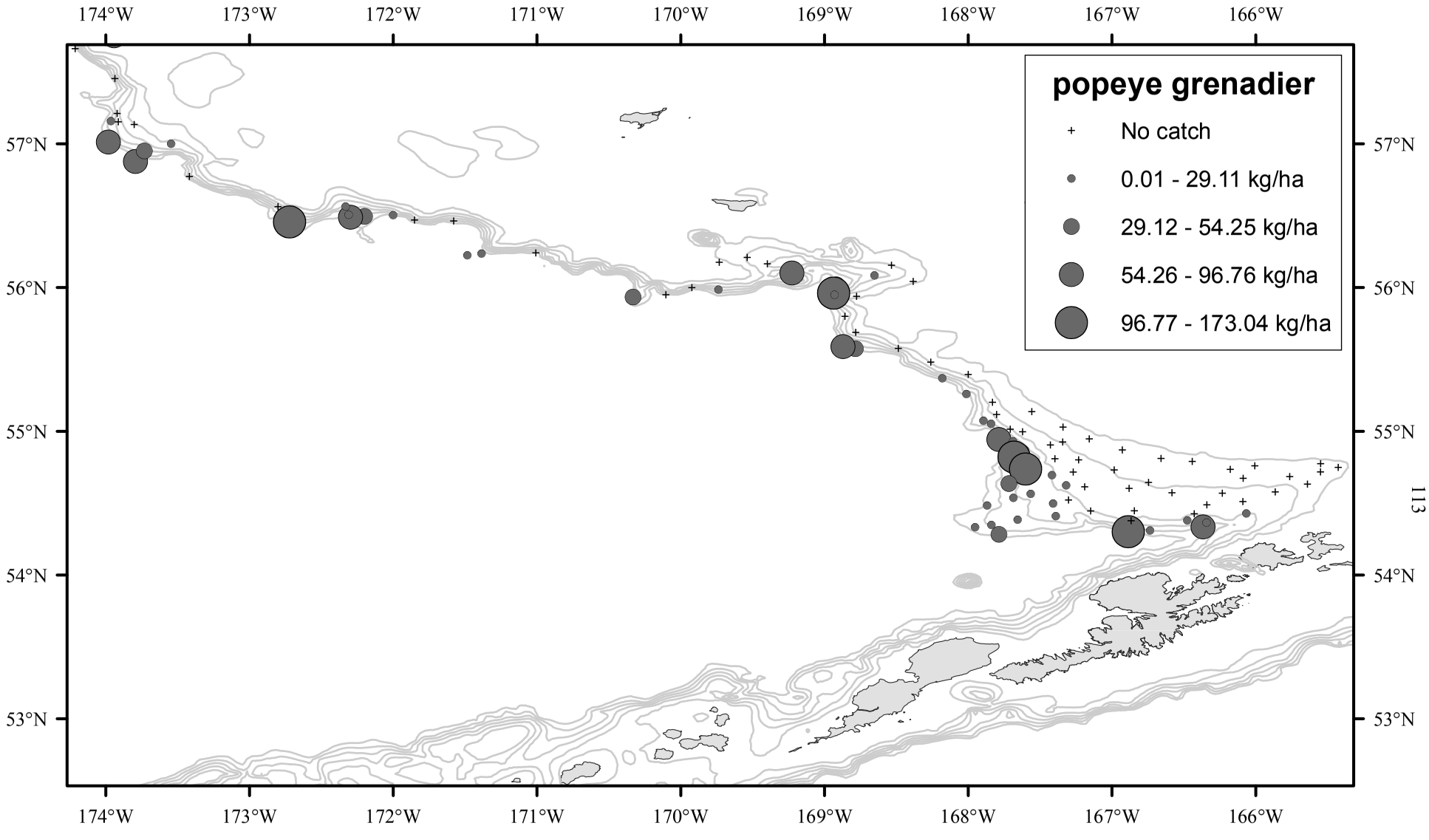


**Figure 26.** - - Continued.

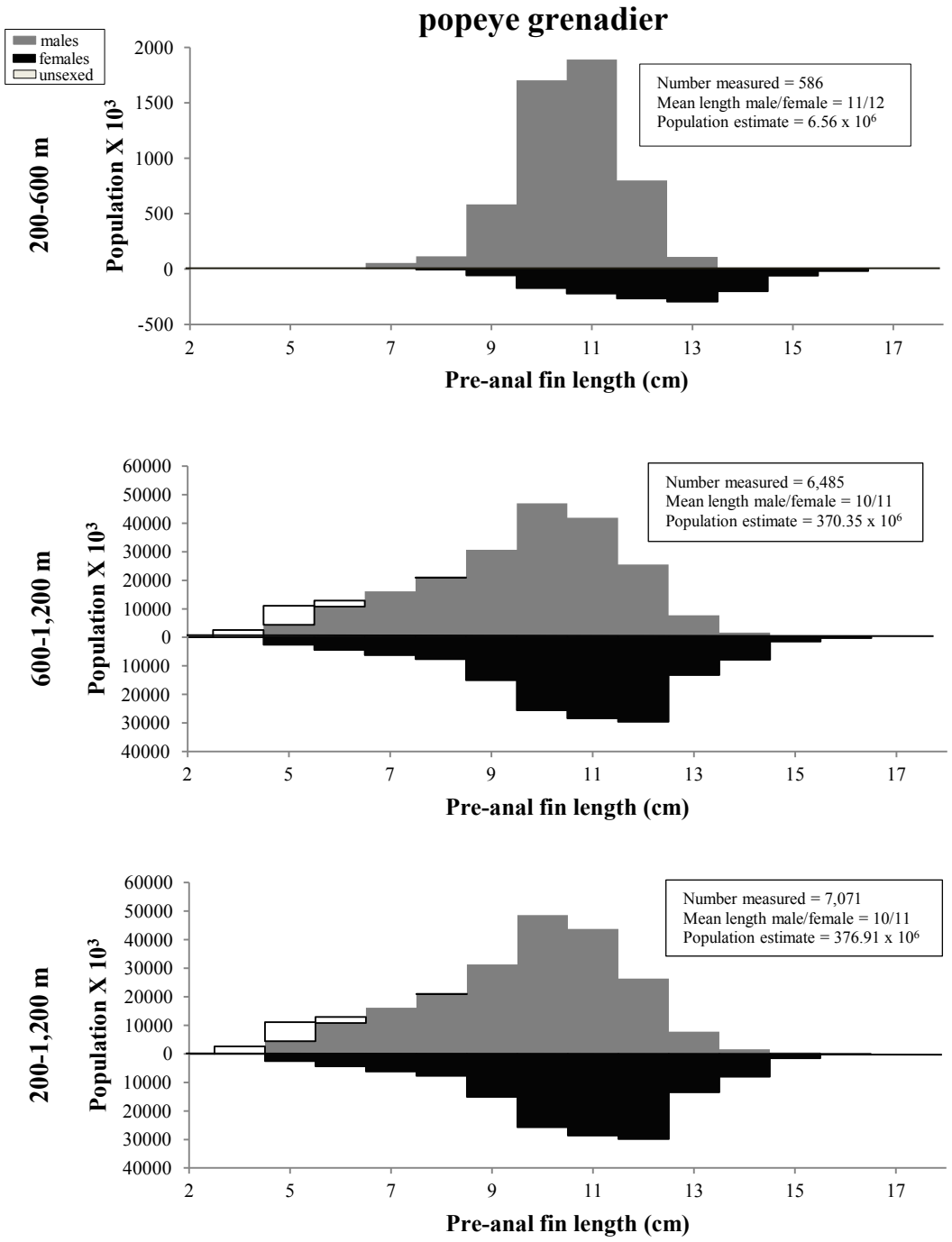


**Figure 27.** - - Size composition of the estimated popeye grenadier population from the 2012 EBSS survey for all subareas by depth.

**Table 21. - -** Abundance estimates by subarea and depth stratum for popeye grenadier *(Coryphaenoides cinereus* ) from the 2012 EBSS survey.

***Coryphaenoides cinereus*** **popeye grenadier**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | **200-400** | | | | | | |
| | **400-600** | 1.84E+02 | 5.50E+05 | 1.13E+04 | 1.02E+11 | 4.54E-01 | 1.35E+00 |
| | **600-800** | 1.54E+03 | 5.48E+06 | 2.45E+05 | 2.85E+12 | 8.82E+00 | 3.14E+01 |
| | **800-1,000** | 6.27E+03 | 3.45E+07 | 5.51E+06 | 1.36E+14 | 4.63E+01 | 2.55E+02 |
| | **1,000-1,200** | 8.93E+03 | 4.25E+07 | 1.03E+07 | 1.99E+14 | 8.07E+01 | 3.84E+02 |
| 2 | **200-400** | | | | | | |
| | **400-600** | 9.56E+00 | 2.71E+04 | 9.14E+01 | 7.32E+08 | 1.36E-01 | 3.84E-01 |
| | **600-800** | 2.56E+02 | 8.83E+05 | 1.93E+04 | 2.64E+11 | 4.32E+00 | 1.49E+01 |
| | **800-1,000** | 3.76E+03 | 1.74E+07 | 2.22E+06 | 3.06E+13 | 6.81E+01 | 3.14E+02 |
| | **1,000-1,200** | 3.60E+03 | 1.95E+07 | 3.10E+05 | 1.63E+13 | 6.71E+01 | 3.64E+02 |
| 3 | **200-400** | | | | | | |
| | **400-600** | 2.23E+02 | 1.15E+06 | 4.96E+04 | 1.32E+12 | 2.51E+00 | 1.30E+01 |
| | **600-800** | 3.86E+03 | 2.22E+07 | 3.35E+06 | 1.11E+14 | 4.24E+01 | 2.44E+02 |
| | **800-1,000** | 2.08E+03 | 2.72E+07 | 6.87E+05 | 4.03E+14 | 2.84E+01 | 3.72E+02 |
| | **1,000-1,200** | 3.66E+03 | 1.99E+07 | 9.85E+05 | 3.23E+13 | 5.42E+01 | 2.95E+02 |
| 4 | **200-400** | 9.81E+00 | 5.24E+04 | 9.62E+01 | 2.74E+09 | 7.93E-02 | 4.24E-01 |
| | **400-600** | 4.70E+02 | 2.57E+06 | 8.92E+04 | 2.60E+12 | 6.44E+00 | 3.52E+01 |
| | **600-800** | 4.05E+03 | 2.25E+07 | 6.05E+05 | 1.60E+13 | 5.83E+01 | 3.25E+02 |
| | **800-1,000** | 2.81E+03 | 1.86E+07 | 1.91E+06 | 7.17E+13 | 3.98E+01 | 2.62E+02 |
| | **1,000-1,200** | 2.38E+03 | 1.78E+07 | 1.09E+06 | 6.55E+13 | 3.59E+01 | 2.68E+02 |
| 5 | **200-400** | | | | | | |
| | **400-600** | 1.98E+00 | 9.06E+03 | 1.75E+00 | 3.54E+07 | 4.66E-02 | 2.13E-01 |
| | **600-800** | 1.04E+03 | 7.80E+06 | 1.55E+05 | 7.67E+12 | 2.40E+01 | 1.81E+02 |
| | **800-1,000** | 1.99E+03 | 2.73E+07 | 6.67E+05 | 2.24E+14 | 3.61E+01 | 4.95E+02 |
| | **1,000-1,200** | 1.50E+03 | 9.06E+06 | 9.74E+04 | 2.79E+12 | 2.63E+01 | 1.59E+02 |
| 6 | **200-400** | | | | | | |
| | **400-600** | 4.99E+02 | 2.23E+06 | 8.23E+04 | 1.56E+12 | 2.92E+00 | 1.31E+01 |
| | **600-800** | 4.22E+03 | 3.03E+07 | 2.44E+06 | 1.21E+14 | 4.60E+01 | 3.30E+02 |
| | **800-1,000** | 3.19E+03 | 3.35E+07 | 1.09E+06 | 1.53E+14 | 4.94E+01 | 5.20E+02 |
| | **1,000-1,200** | 1.78E+03 | 1.39E+07 | 4.46E+05 | 3.17E+13 | 3.58E+01 | 2.81E+02 |
| **1-6** | **200-1,200** | **5.83E+04** | **3.77E+08** | **3.23E+07** | **1.63E+15** | **1.75E+01** | **1.13E+02** |

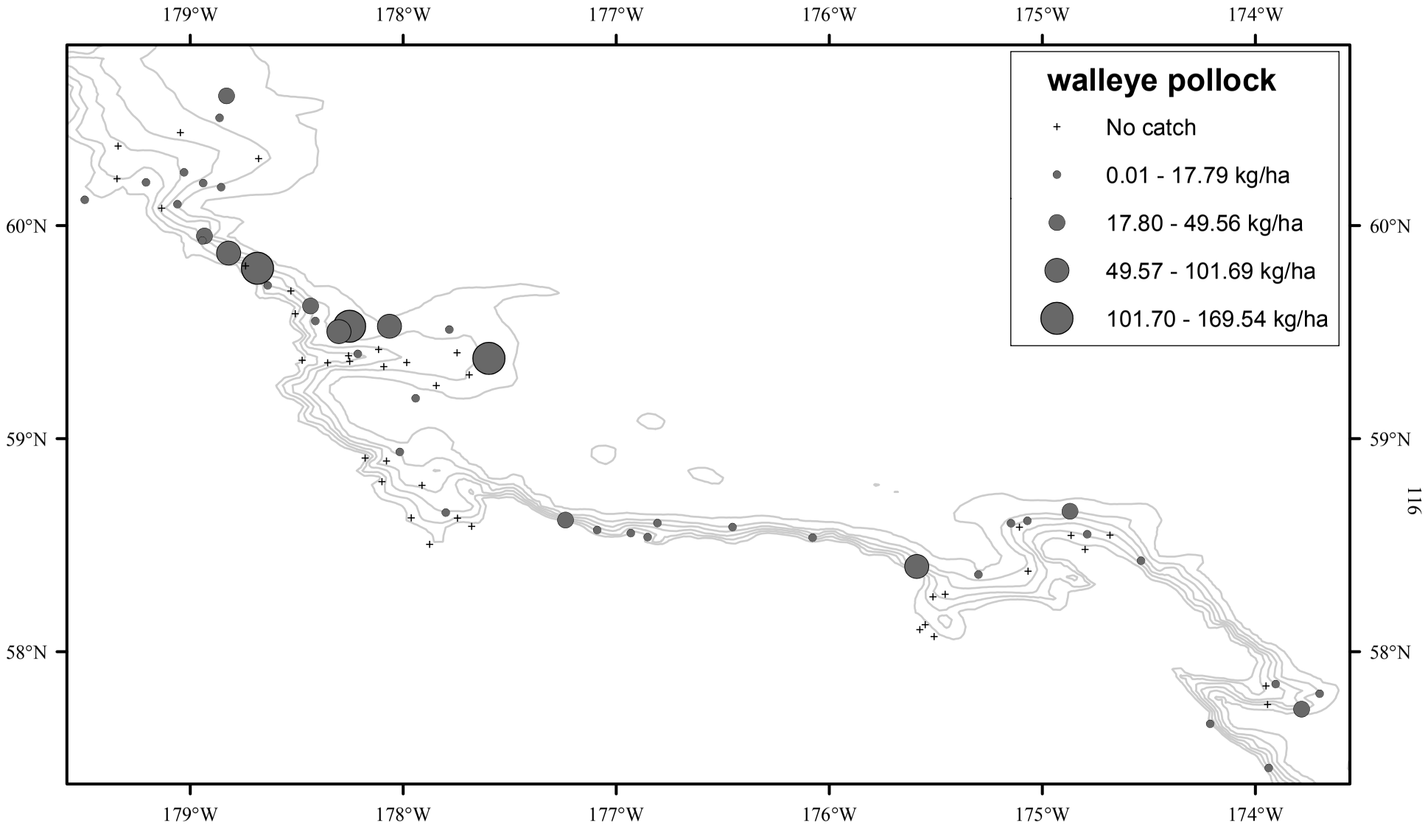




**Figure 28.** - - Distribution and relative abundance of walleye pollock from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

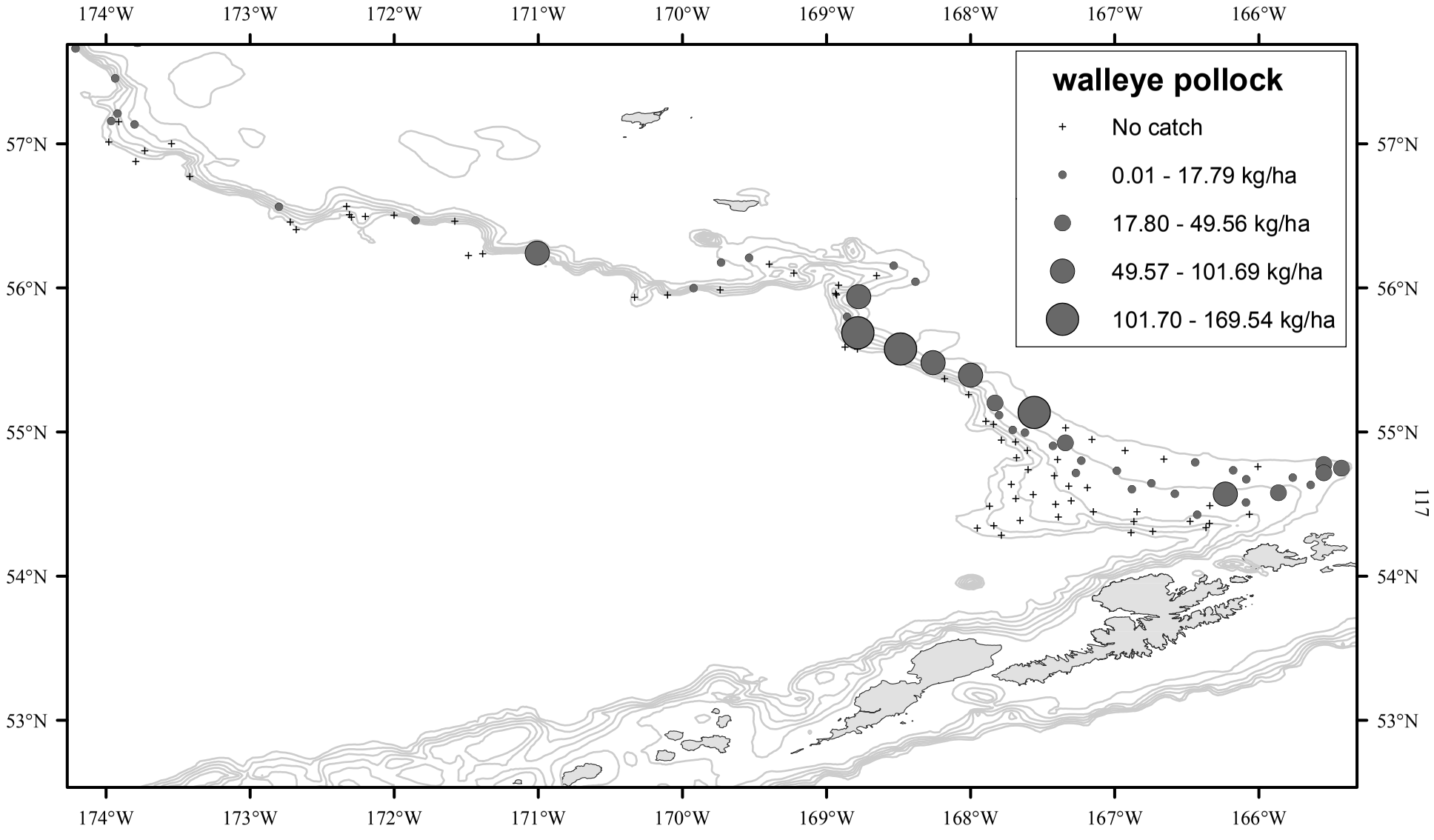


**Figure 28.** - - Continued.

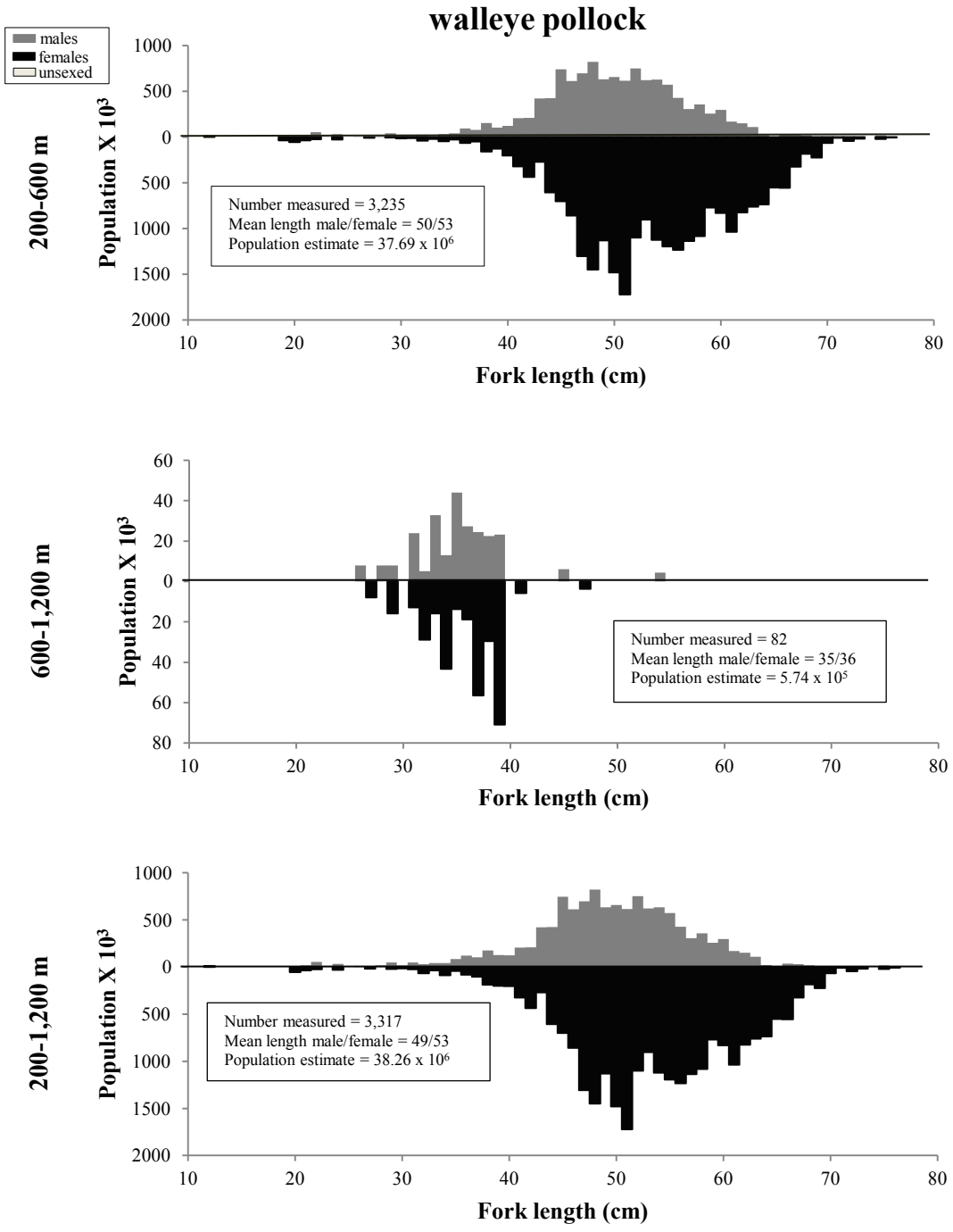


**Figure 29.** - - Size composition of the estimated walleye pollock population from the 2012 EBSS survey for all subareas by depth.

**Table 22. - -** Abundance estimates by subarea and depth stratum for walleye pollock (*Theragra chalcogramma* ) from the 2012 EBSS survey.

***Theragra chalcogramma*** **walleye pollock**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 1.18E+04 | 9.99E+06 | 1.54E+07 | 1.02E+13 | 2.94E+01 | 2.49E+01 |
| | 400-600 | 3.06E+03 | 2.75E+06 | 2.16E+06 | 1.75E+12 | 7.54E+00 | 6.76E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 4.36E+03 | 3.48E+06 | 6.46E+06 | 4.21E+12 | 3.77E+01 | 3.01E+01 |
| | 400-600 | 1.40E+02 | 1.22E+05 | 1.28E+04 | 8.86E+09 | 1.98E+00 | 1.73E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 1.44E+03 | 1.04E+06 | 1.13E+06 | 5.11E+11 | 1.59E+01 | 1.15E+01 |
| | 400-600 | 1.14E+01 | 8.97E+03 | 1.31E+02 | 8.04E+07 | 1.29E-01 | 1.01E-01 |
| | 600-800 | 3.98E+00 | 4.37E+03 | 1.59E+01 | 1.91E+07 | 4.37E-02 | 4.80E-02 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 2.55E+03 | 2.48E+06 | 8.54E+05 | 7.46E+11 | 2.06E+01 | 2.00E+01 |
| | 400-600 | 1.01E+02 | 6.37E+04 | 4.07E+03 | 1.35E+09 | 1.38E+00 | 8.72E-01 |
| | 600-800 | 2.64E+00 | 3.74E+03 | 6.99E+00 | 1.40E+07 | 3.81E-02 | 5.40E-02 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 6.62E+02 | 5.96E+05 | 8.41E+03 | 4.01E+09 | 1.56E+01 | 1.41E+01 |
| | 400-600 | 1.15E+01 | 8.33E+03 | 4.49E+01 | 2.85E+07 | 2.71E-01 | 1.96E-01 |
| | 600-800 | 8.81E+00 | 2.12E+04 | 2.18E+01 | 1.75E+08 | 2.04E-01 | 4.92E-01 |
| | 800-1,000 | 3.94E+01 | 1.23E+05 | 1.55E+03 | 1.51E+10 | 7.13E-01 | 2.23E+00 |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 1.40E+04 | 1.71E+07 | 1.63E+07 | 2.62E+13 | 5.41E+01 | 6.58E+01 |
| | 400-600 | 4.60E+01 | 8.75E+04 | 1.04E+03 | 4.78E+09 | 2.70E-01 | 5.13E-01 |
| | 600-800 | 1.08E+02 | 3.55E+05 | 5.35E+03 | 4.89E+10 | 1.18E+00 | 3.87E+00 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | 1.90E+01 | 6.67E+04 | 2.90E+02 | 3.33E+09 | 3.83E-01 | 1.34E+00 |
| **1-6** | **200-1,200** | **3.84E+04** | **3.83E+07** | **4.23E+07** | **4.37E+13** | **1.16E+01** | **1.17E+01** |

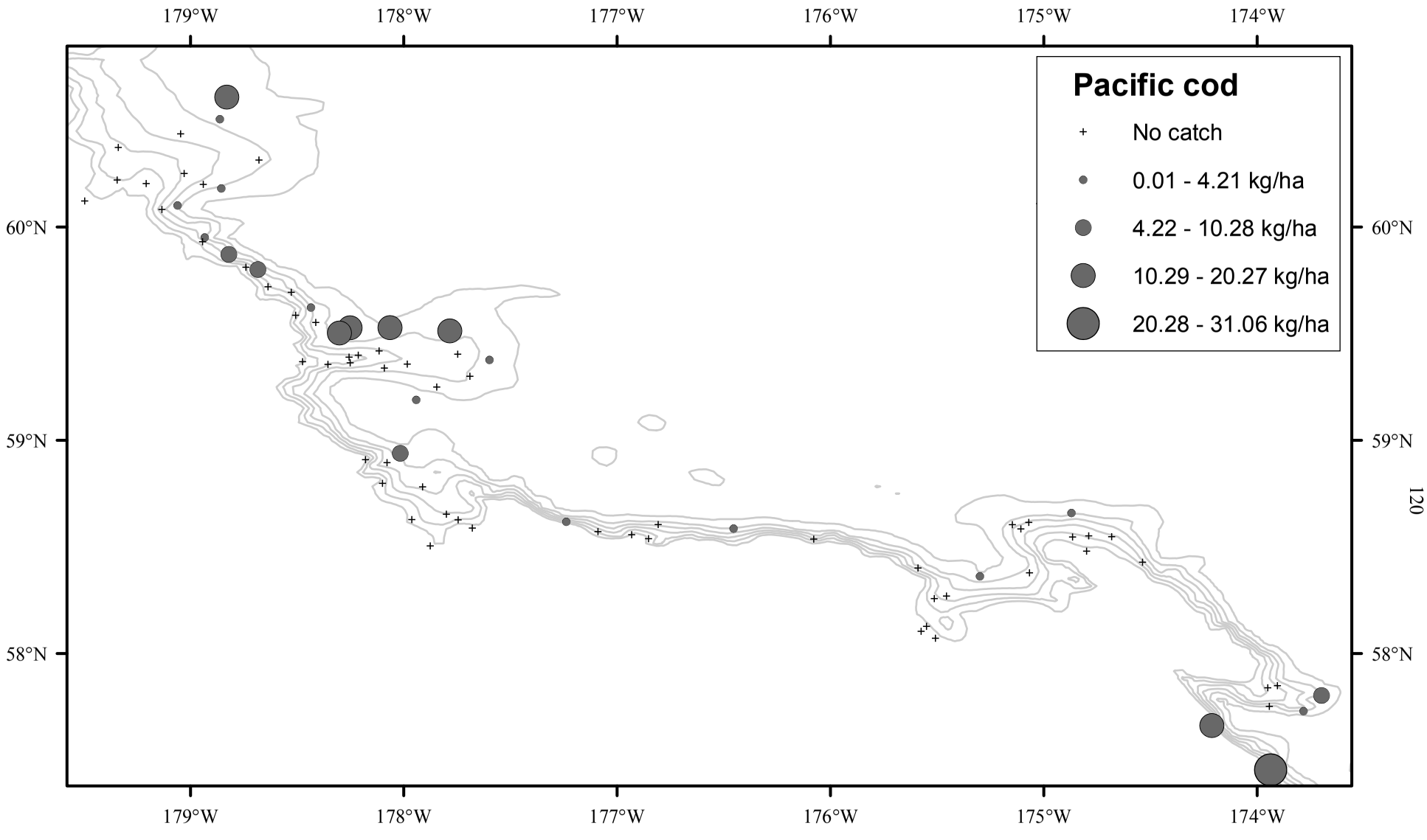


**Figure 30.** - - Distribution and relative abundance of Pacific cod from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

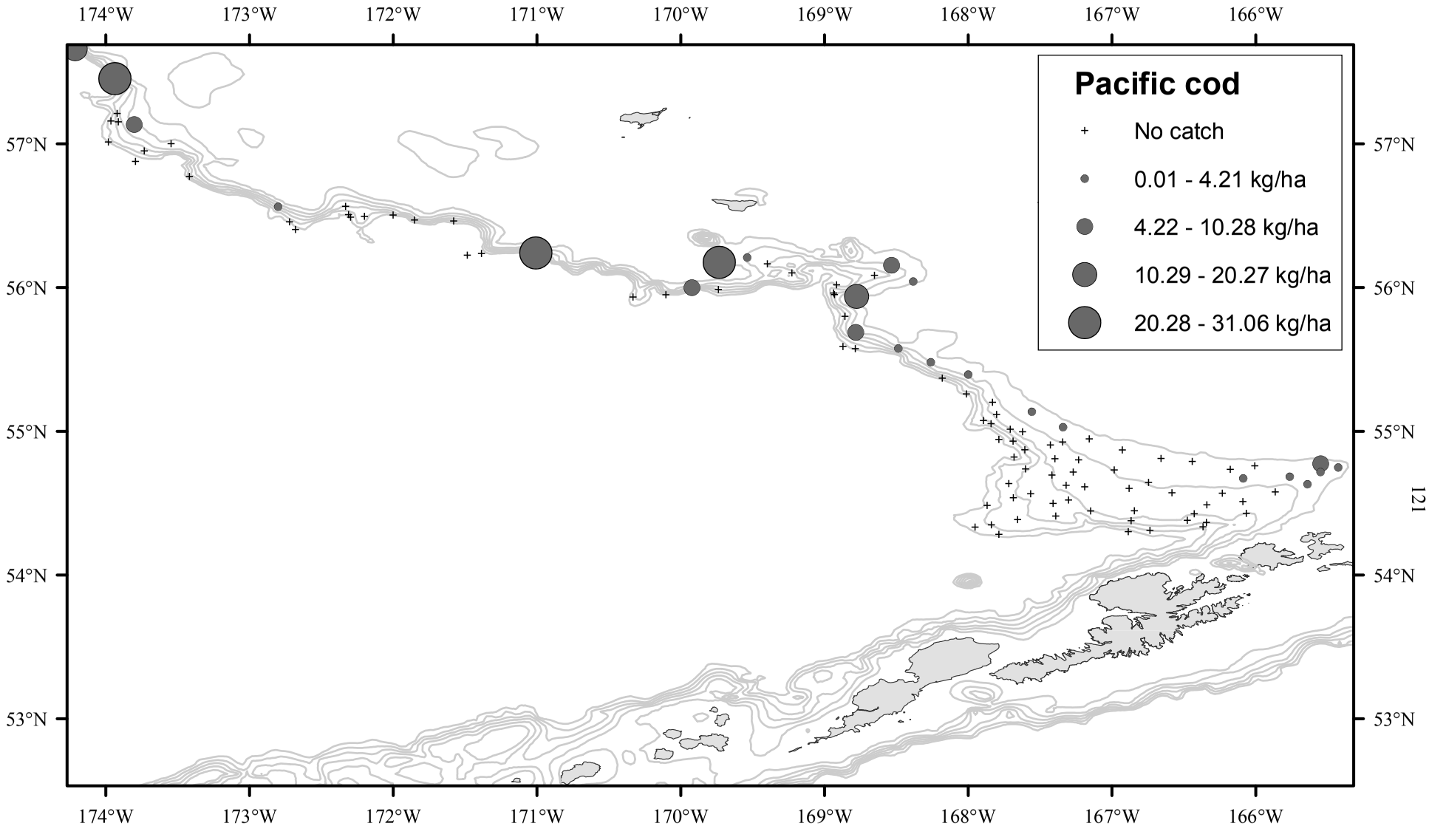


**Figure 30.** - - Continued.

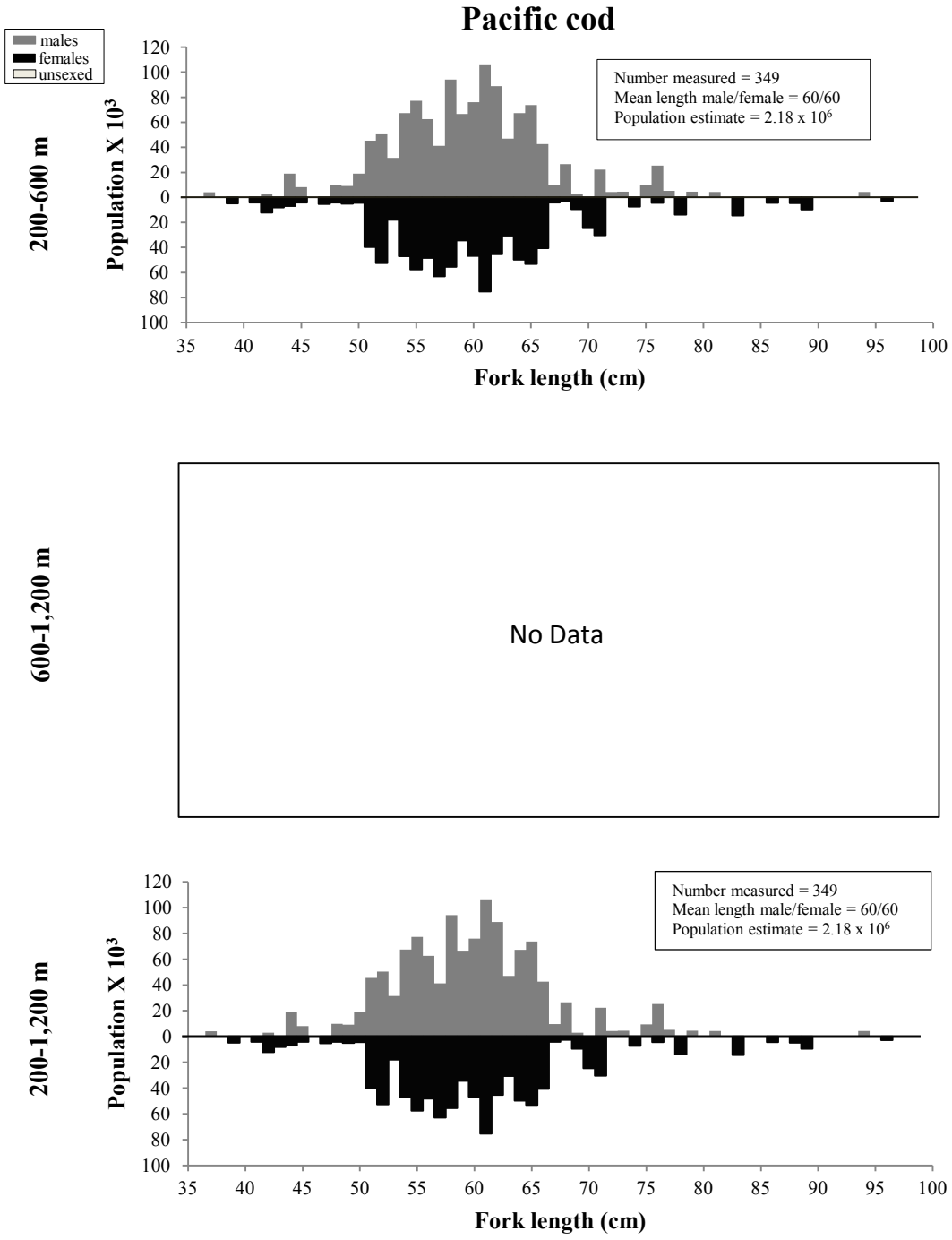


**Figure 31.** - - Size composition of the estimated Pacific cod population from the 2012 EBSS survey for all subareas by depth.

**Table 23. - -** Abundance estimates by subarea and depth strata for Pacific cod (*Gadus macrocephalus*) from the 2012 EBSS survey.

***Gadus macrocephalus*** **Pacific cod**

| Subarea | Depth strata (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 4.14E+02 | 2.15E+05 | 2.14E+04 | 6.23E+09 | 1.03E+00 | 5.37E-01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 1.40E+03 | 5.80E+05 | 1.84E+05 | 2.46E+10 | 1.21E+01 | 5.01E+00 |
| | 400-600 | 2.16E+01 | 4.96E+03 | 4.68E+02 | 2.46E+07 | 3.07E-01 | 7.04E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 1.21E+03 | 4.18E+05 | 3.52E+05 | 4.86E+10 | 1.34E+01 | 4.63E+00 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 5.58E+02 | 2.22E+05 | 7.42E+04 | 1.17E+10 | 4.51E+00 | 1.79E+00 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 1.63E+02 | 5.17E+04 | 5.55E+03 | 5.80E+08 | 3.86E+00 | 1.22E+00 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 1.73E+03 | 6.90E+05 | 1.74E+05 | 3.93E+10 | 6.65E+00 | 2.66E+00 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **5.50E+03** | **2.18E+06** | **8.12E+05** | **1.31E+11** | **1.67E+00** | **6.60E-01** |

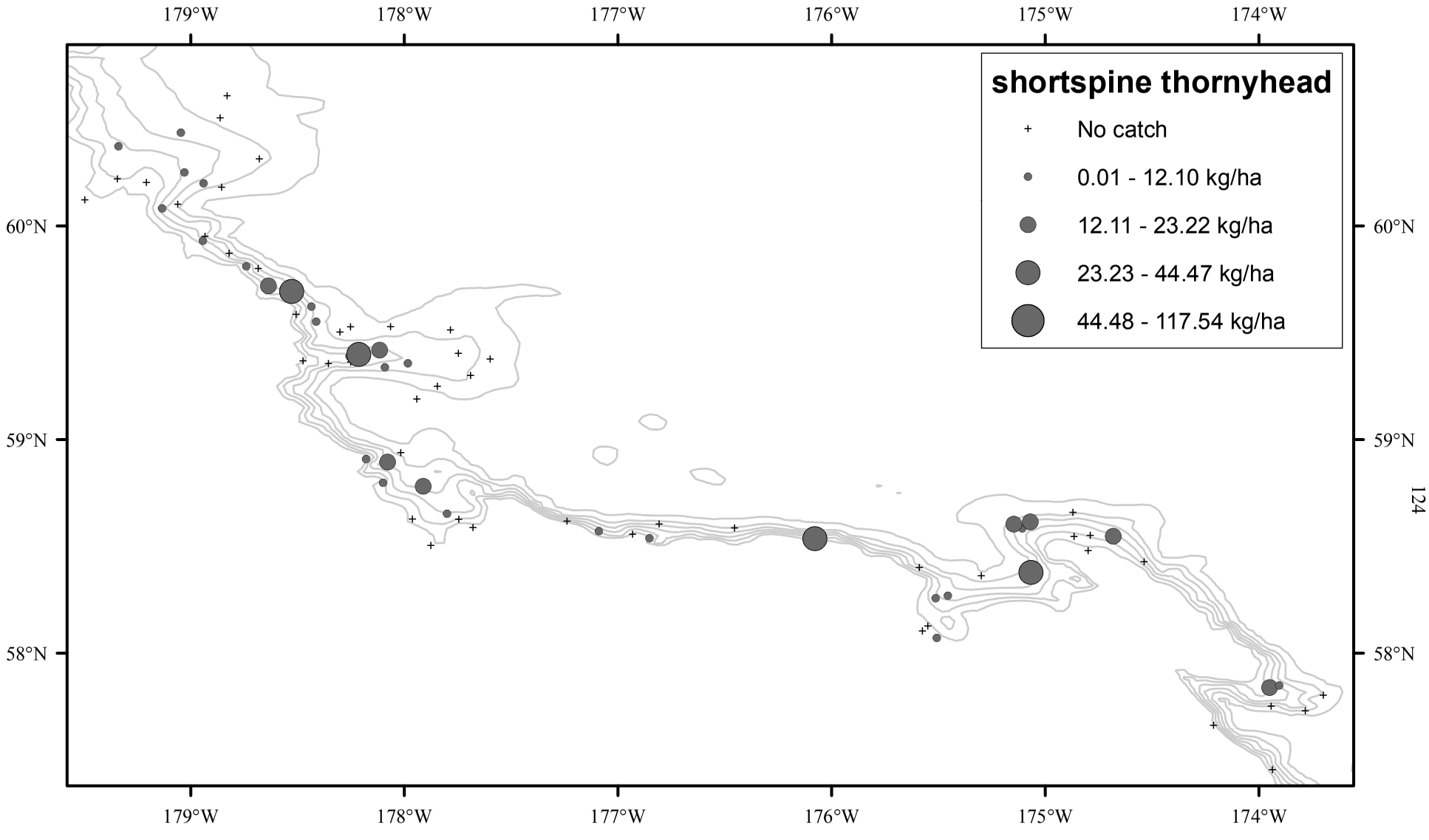


**Figure 32.** - - Distribution and relative abundance of shortspine thornyhead from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

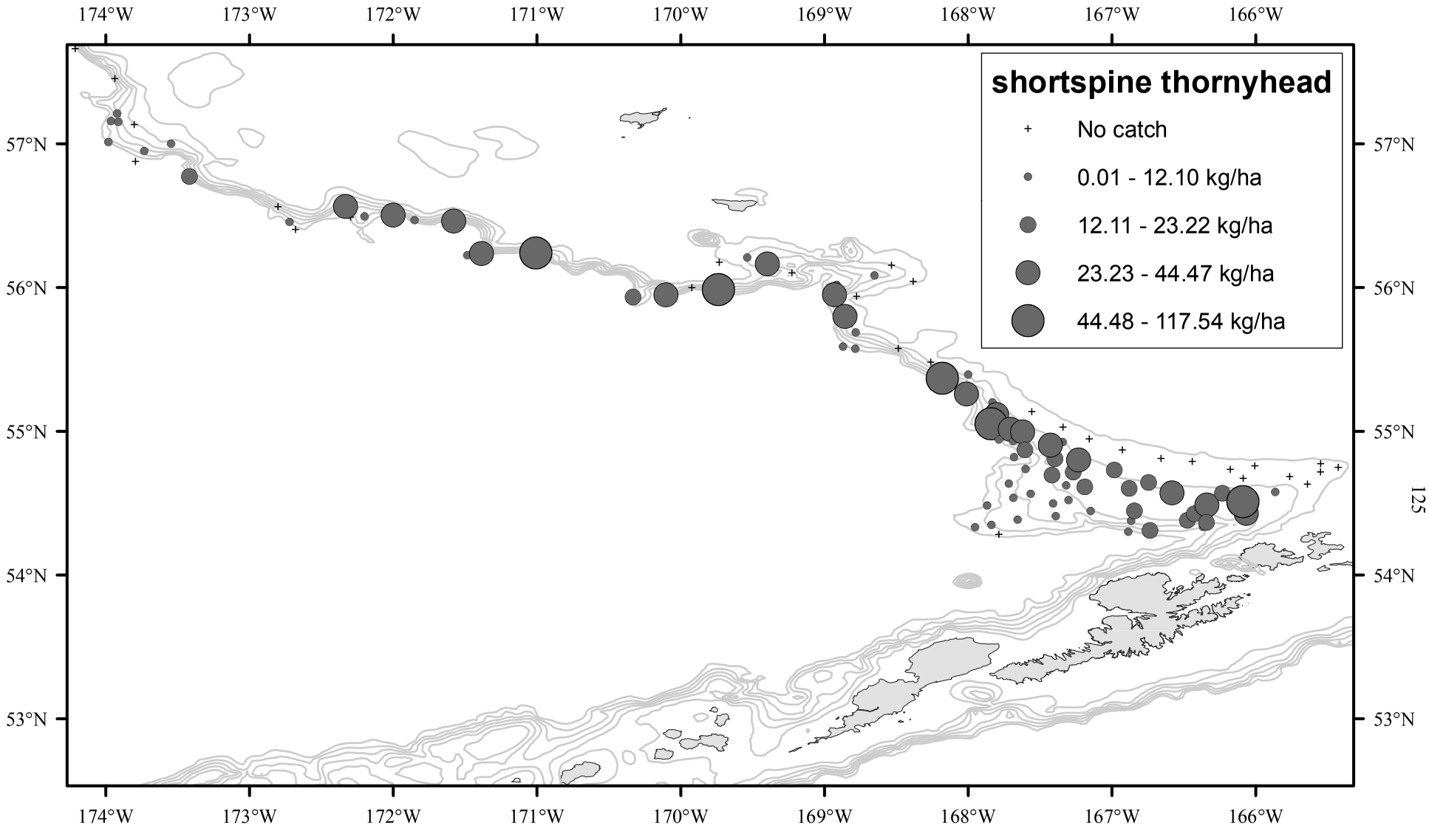


**Figure 32.** - - Continued.

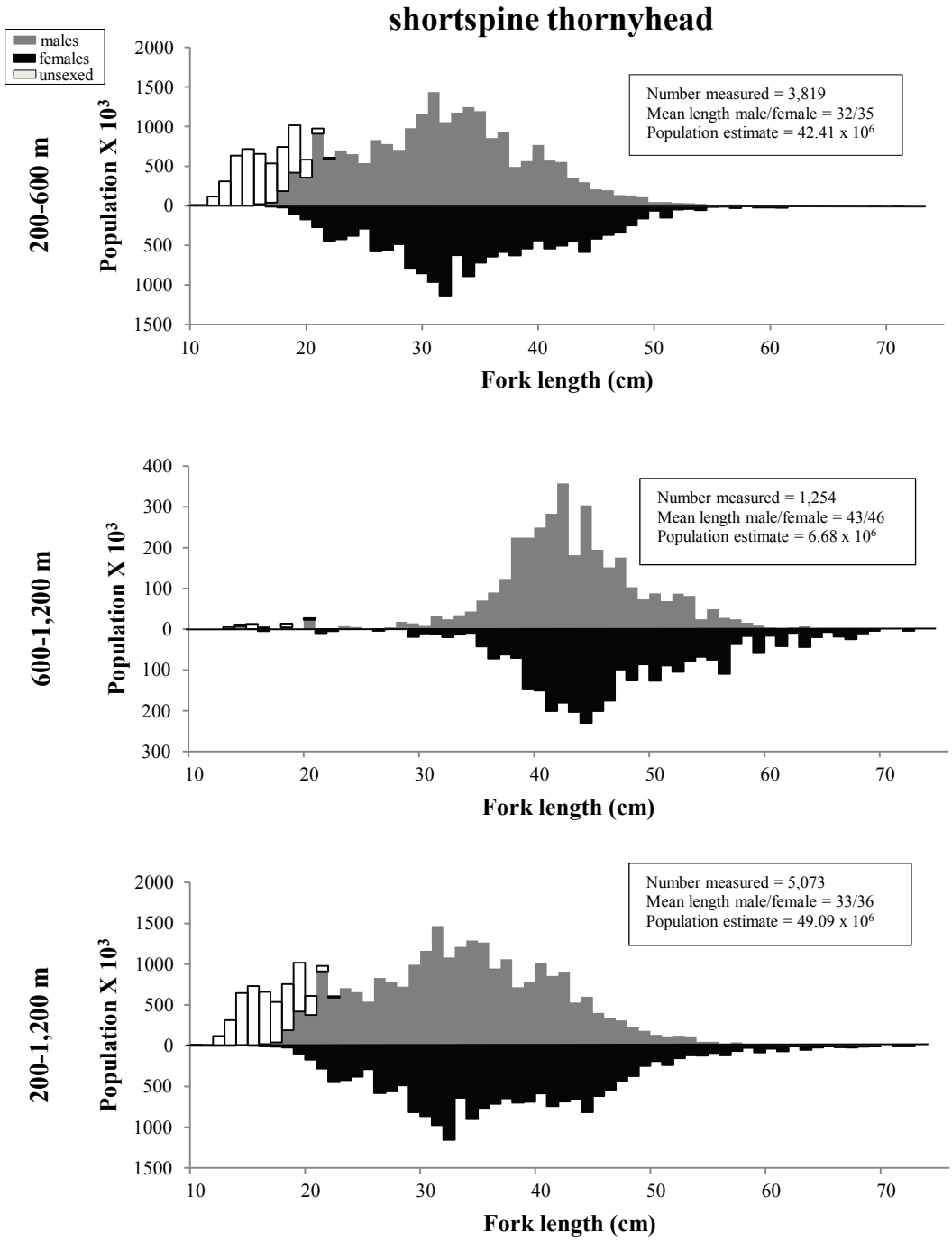


**Figure 33.** - - Size composition of the estimated shortspine thornyhead population from the 2012 EBSS survey for all subareas by depth.

**Table 24. - -** Abundance estimates by subarea and depth stratum for shortspine thornyhead (*Sebastolobus alascanus* ) from the 2012 EBSS survey.

***Sebastolobus alascanus*** **shortspine thornyhead**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 1.19E+03 | 5.05E+06 | 3.48E+05 | 7.23E+12 | 2.96E+00 | 1.26E+01 |
| | 400-600 | 1.07E+04 | 1.93E+07 | 2.48E+06 | 5.08E+12 | 2.63E+01 | 4.75E+01 |
| | 600-800 | 2.29E+03 | 2.27E+06 | 1.67E+05 | 2.01E+11 | 1.31E+01 | 1.30E+01 |
| | 800-1,000 | 9.53E+02 | 7.01E+05 | 1.21E+05 | 9.66E+10 | 7.03E+00 | 5.17E+00 |
| | 1,000-1,200 | 9.58E+01 | 5.07E+04 | 1.24E+03 | 2.71E+08 | 8.65E-01 | 4.58E-01 |
| 2 | 200-400 | 7.71E+00 | 4.88E+03 | 5.95E+01 | 2.38E+07 | 6.66E-02 | 4.22E-02 |
| | 400-600 | 2.25E+03 | 3.32E+06 | 6.84E+05 | 1.38E+12 | 3.20E+01 | 4.71E+01 |
| | 600-800 | 1.30E+03 | 8.00E+05 | 1.81E+05 | 1.19E+11 | 2.20E+01 | 1.35E+01 |
| | 800-1,000 | 7.01E+02 | 3.74E+05 | 1.94E+04 | 3.38E+09 | 1.27E+01 | 6.76E+00 |
| | 1,000-1,200 | 2.14E+01 | 1.08E+04 | 1.60E+02 | 3.04E+07 | 4.00E-01 | 2.01E-01 |
| 3 | 200-400 | 2.13E+03 | 6.24E+06 | 4.51E+06 | 3.88E+13 | 2.36E+01 | 6.90E+01 |
| | 400-600 | 1.77E+03 | 3.30E+06 | 4.71E+05 | 2.63E+12 | 1.99E+01 | 3.73E+01 |
| | 600-800 | 1.41E+03 | 1.23E+06 | 2.82E+05 | 2.59E+11 | 1.55E+01 | 1.35E+01 |
| | 800-1,000 | 2.72E+02 | 2.15E+05 | 3.13E+04 | 2.70E+10 | 3.71E+00 | 2.93E+00 |
| | 1,000-1,200 | 1.93E+01 | 8.88E+03 | 3.71E+02 | 7.88E+07 | 2.85E-01 | 1.31E-01 |
| 4 | 200-400 | | | | | | |
| | 400-600 | 8.77E+02 | 1.31E+06 | 9.11E+04 | 3.35E+11 | 1.20E+01 | 1.79E+01 |
| | 600-800 | 6.48E+02 | 3.23E+05 | 6.08E+04 | 1.43E+10 | 9.33E+00 | 4.65E+00 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | 4.22E+00 | 6.32E+03 | 1.78E+01 | 3.99E+07 | 6.37E-02 | 9.54E-02 |
| 5 | 200-400 | | | | | | |
| | 400-600 | 7.56E+02 | 1.89E+06 | 4.21E+04 | 9.99E+10 | 1.78E+01 | 4.43E+01 |
| | 600-800 | 2.53E+02 | 1.46E+05 | 1.07E+04 | 4.42E+09 | 5.86E+00 | 3.37E+00 |
| | 800-1,000 | 1.04E+01 | 1.03E+04 | 1.09E+02 | 1.07E+08 | 1.89E-01 | 1.87E-01 |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 6.52E+00 | 1.36E+04 | 4.24E+01 | 1.85E+08 | 2.51E-02 | 5.24E-02 |
| | 400-600 | 9.50E+02 | 1.98E+06 | 1.81E+05 | 8.71E+11 | 5.57E+00 | 1.16E+01 |
| | 600-800 | 9.51E+02 | 5.33E+05 | 2.49E+05 | 7.21E+10 | 1.04E+01 | 5.81E+00 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **2.96E+04** | **4.91E+07** | **9.93E+06** | **5.72E+13** | **9.09E+00** | **1.51E+01** |

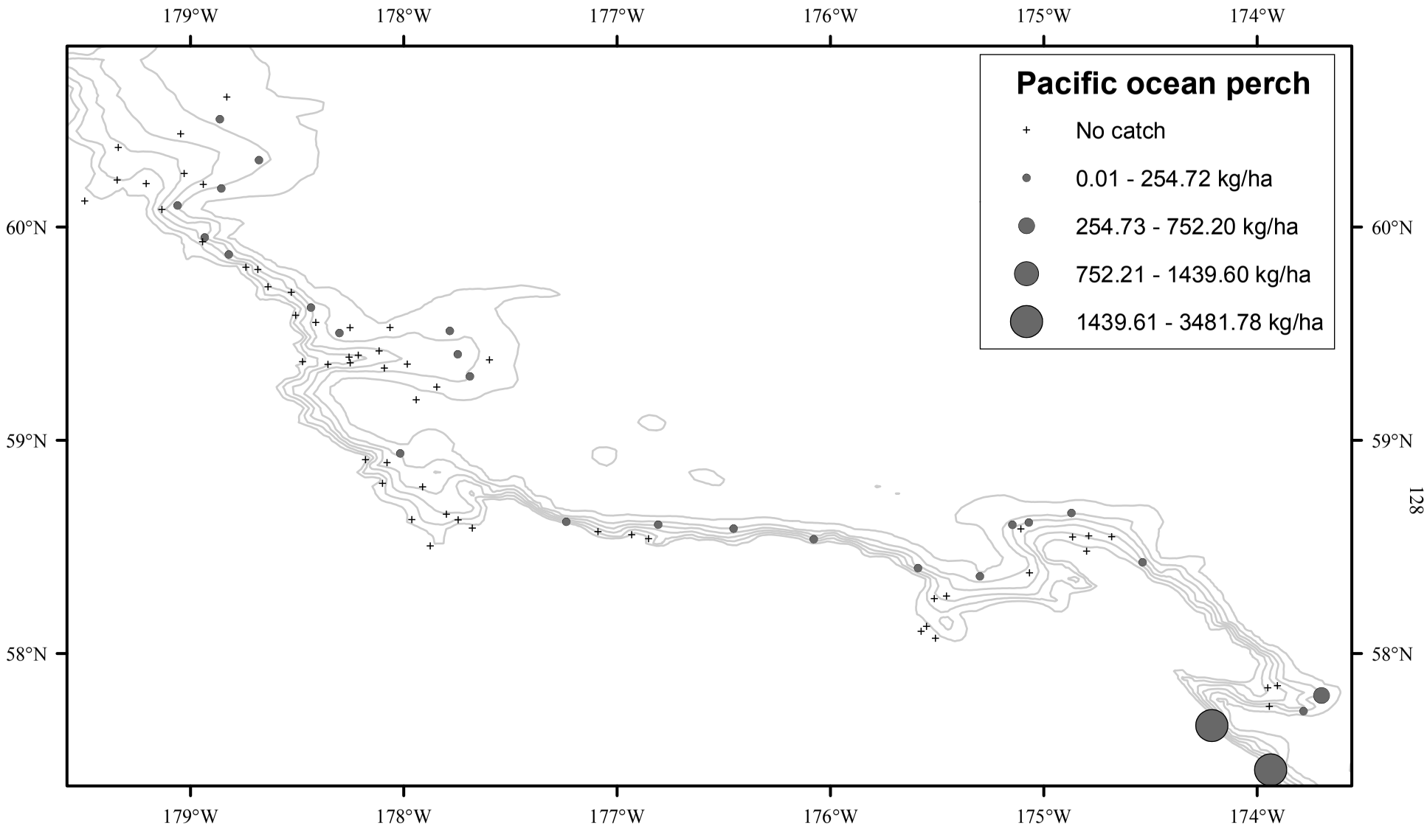


**Figure 35.** - - Distribution and relative abundance of Pacific ocean perch from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

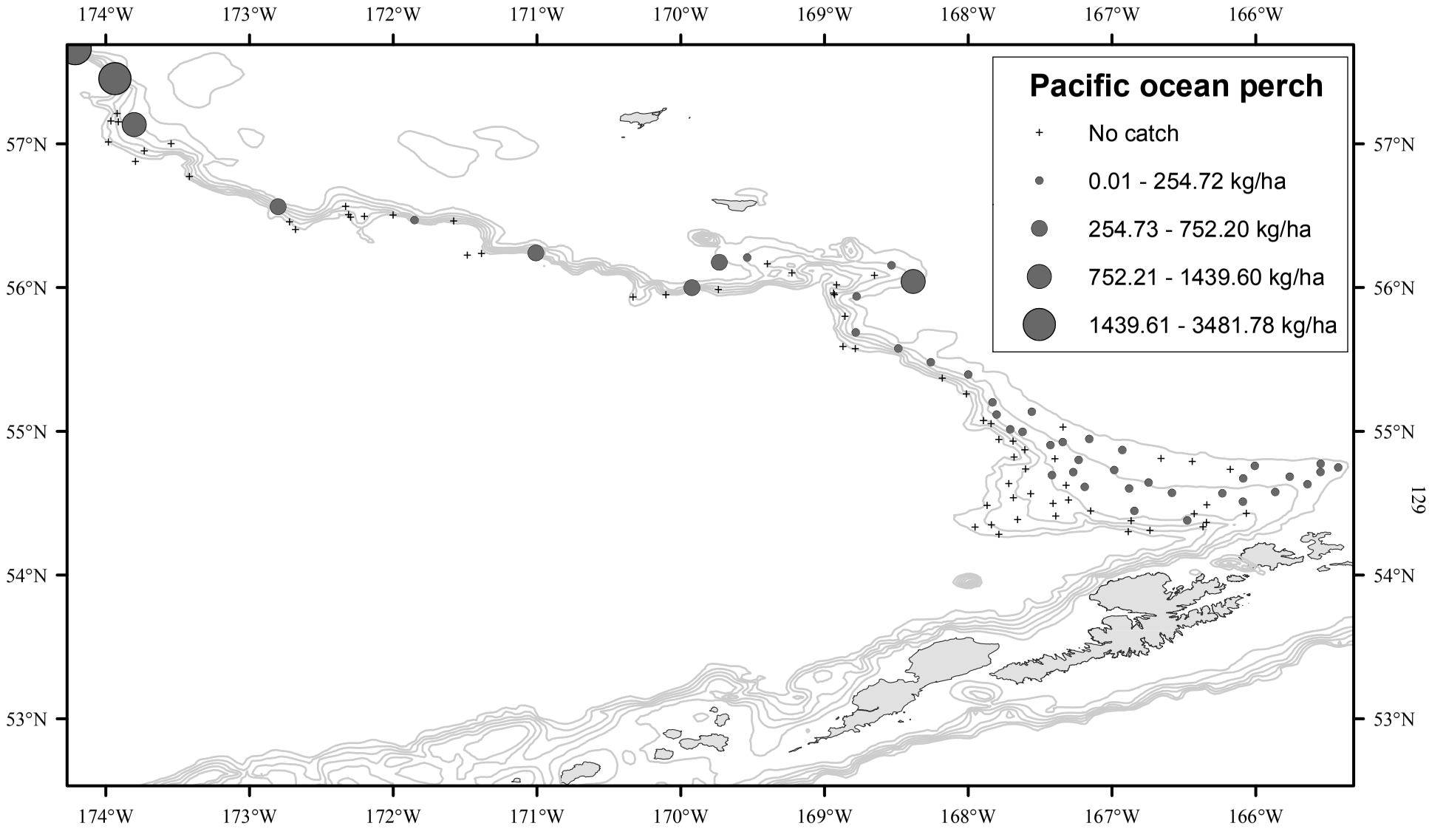


**Figure 35.** - - Continued.

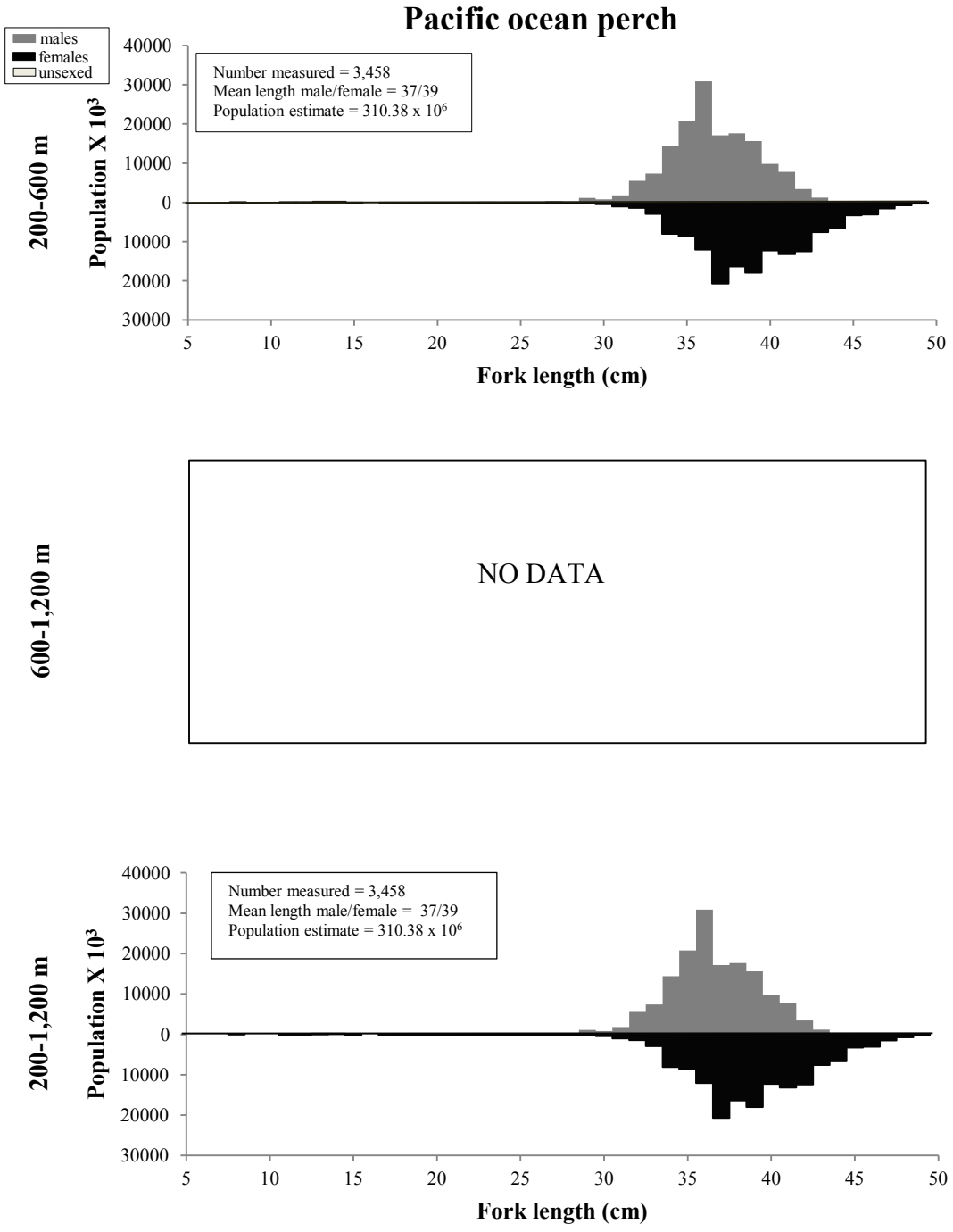


**Figure 35.** - - Size composition of the estimated Pacific ocean perch population from the 2012 EBSS survey for all subareas by depth.

**Table 25. - -** Abundance estimates by subarea and depth stratum for Pacific ocean perch (*Sebastes alutus* ) from the 2012 EBSS survey.

***Sebastes alutus*** **Pacific ocean perch**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 6.50E+03 | 7.34E+06 | 9.96E+06 | 1.20E+13 | 1.62E+01 | 1.83E+01 |
| | 400-600 | 5.75E+02 | 7.91E+05 | 2.26E+04 | 4.16E+10 | 1.42E+00 | 1.95E+00 |
| | 600-800 | 2.96E+00 | 4.31E+03 | 8.74E+00 | 1.86E+07 | 1.70E-02 | 2.47E-02 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 4.46E+04 | 4.68E+07 | 4.14E+08 | 4.32E+14 | 3.85E+02 | 4.04E+02 |
| | 400-600 | 2.90E+00 | 4.96E+03 | 8.39E+00 | 2.46E+07 | 4.11E-02 | 7.04E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 9.93E+04 | 1.42E+08 | 1.66E+09 | 4.10E+15 | 1.10E+03 | 1.57E+03 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 7.46E+04 | 1.05E+08 | 3.57E+09 | 7.22E+15 | 6.03E+02 | 8.50E+02 |
| | 400-600 | 6.32E+00 | 7.88E+03 | 1.50E+01 | 2.34E+07 | 8.65E-02 | 1.08E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 4.17E+03 | 4.54E+06 | 4.99E+06 | 6.08E+12 | 9.85E+01 | 1.07E+02 |
| | 400-600 | 1.84E+00 | 2.79E+03 | 3.40E+00 | 7.80E+06 | 4.33E-02 | 6.56E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 1.36E+03 | 3.57E+06 | 4.84E+05 | 5.18E+12 | 5.25E+00 | 1.37E+01 |
| | 400-600 | 8.77E+00 | 1.72E+04 | 7.69E+01 | 2.97E+08 | 5.14E-02 | 1.01E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **2.31E+05** | **3.10E+08** | **5.66E+09** | **1.18E+16** | **6.81E+01** | **9.17E+01** |

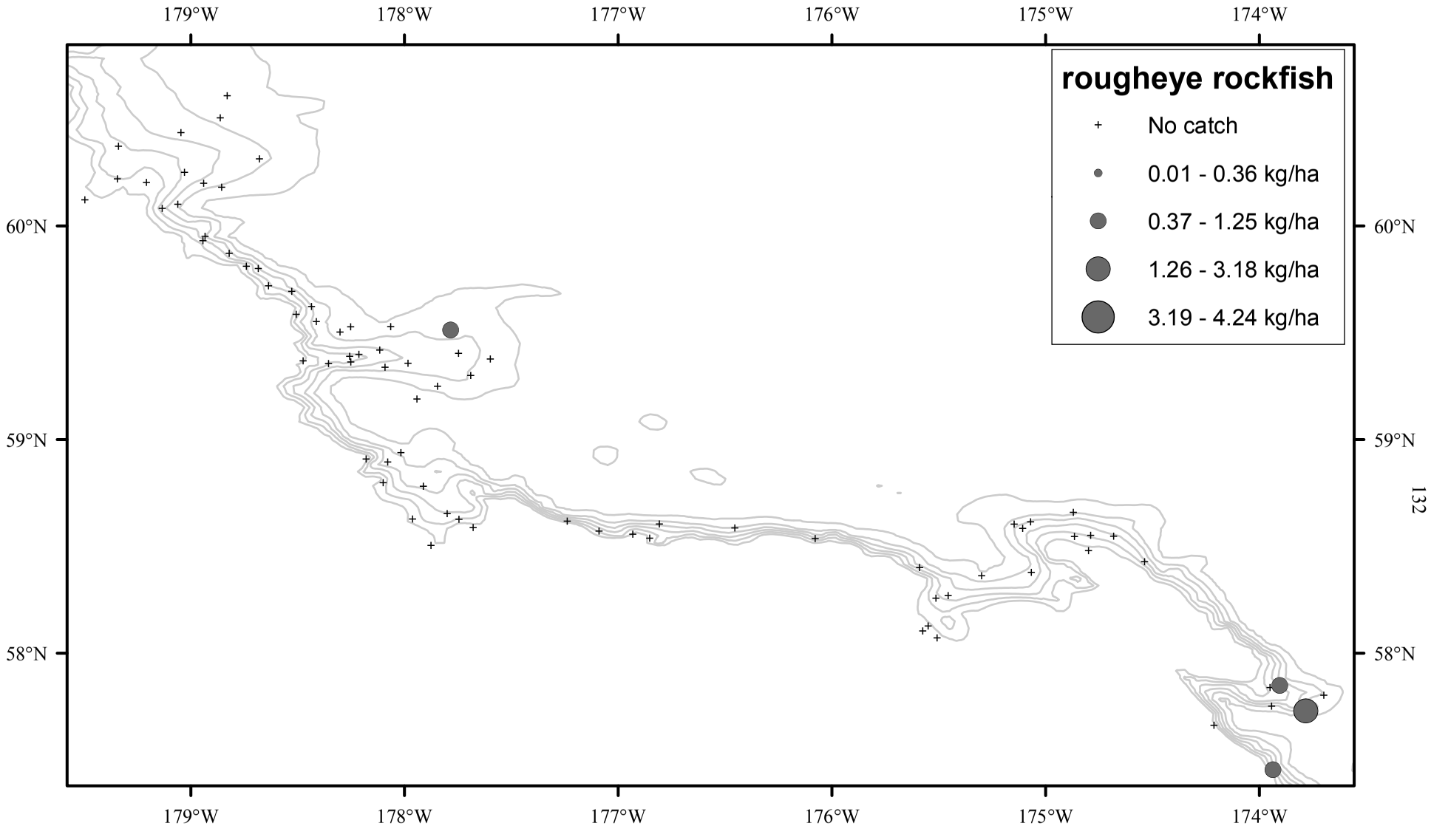




**Figure 36.** - - Distribution and relative abundance of rougheye rockfish from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

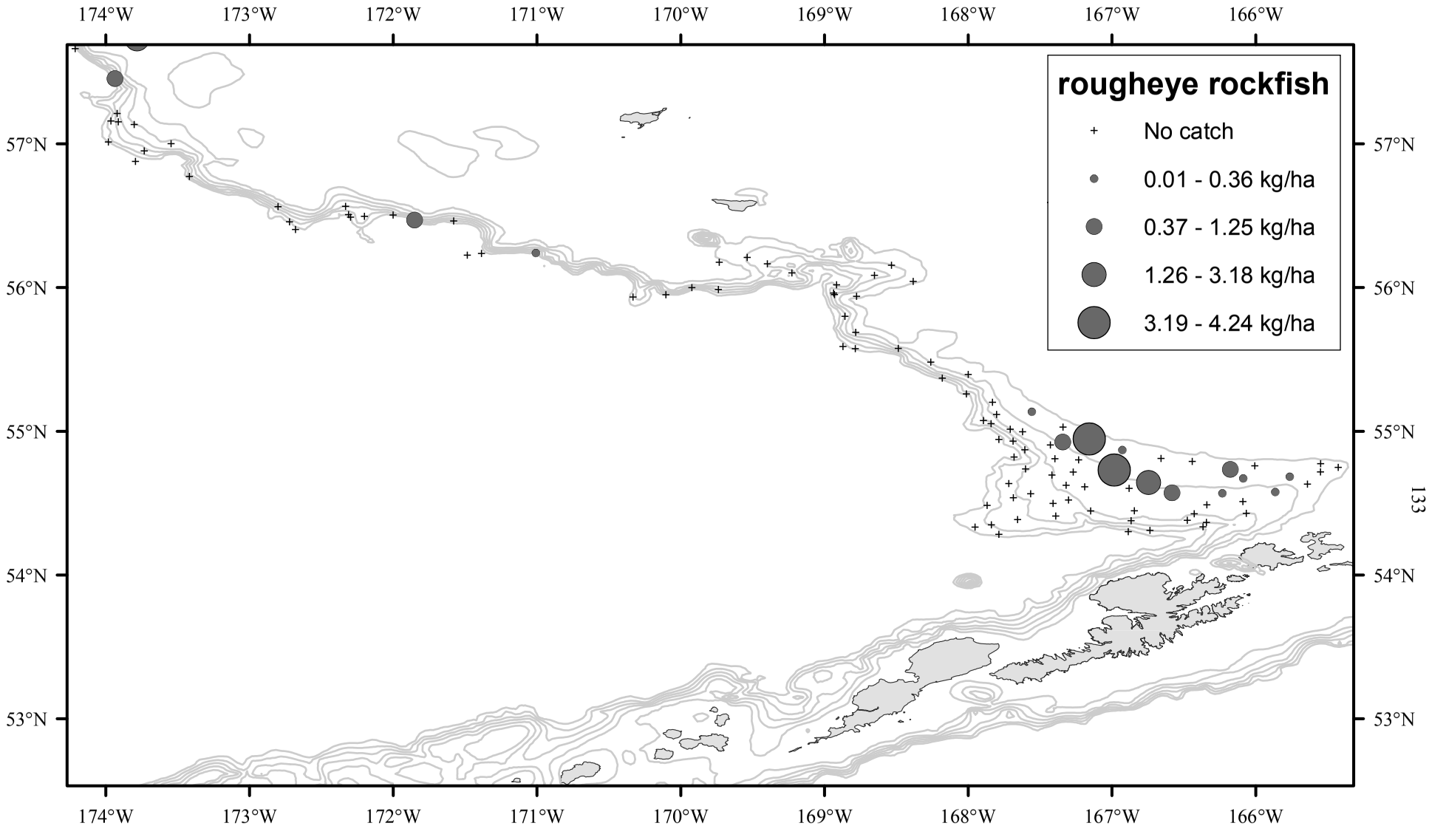


**Figure 36.** - - Continued.

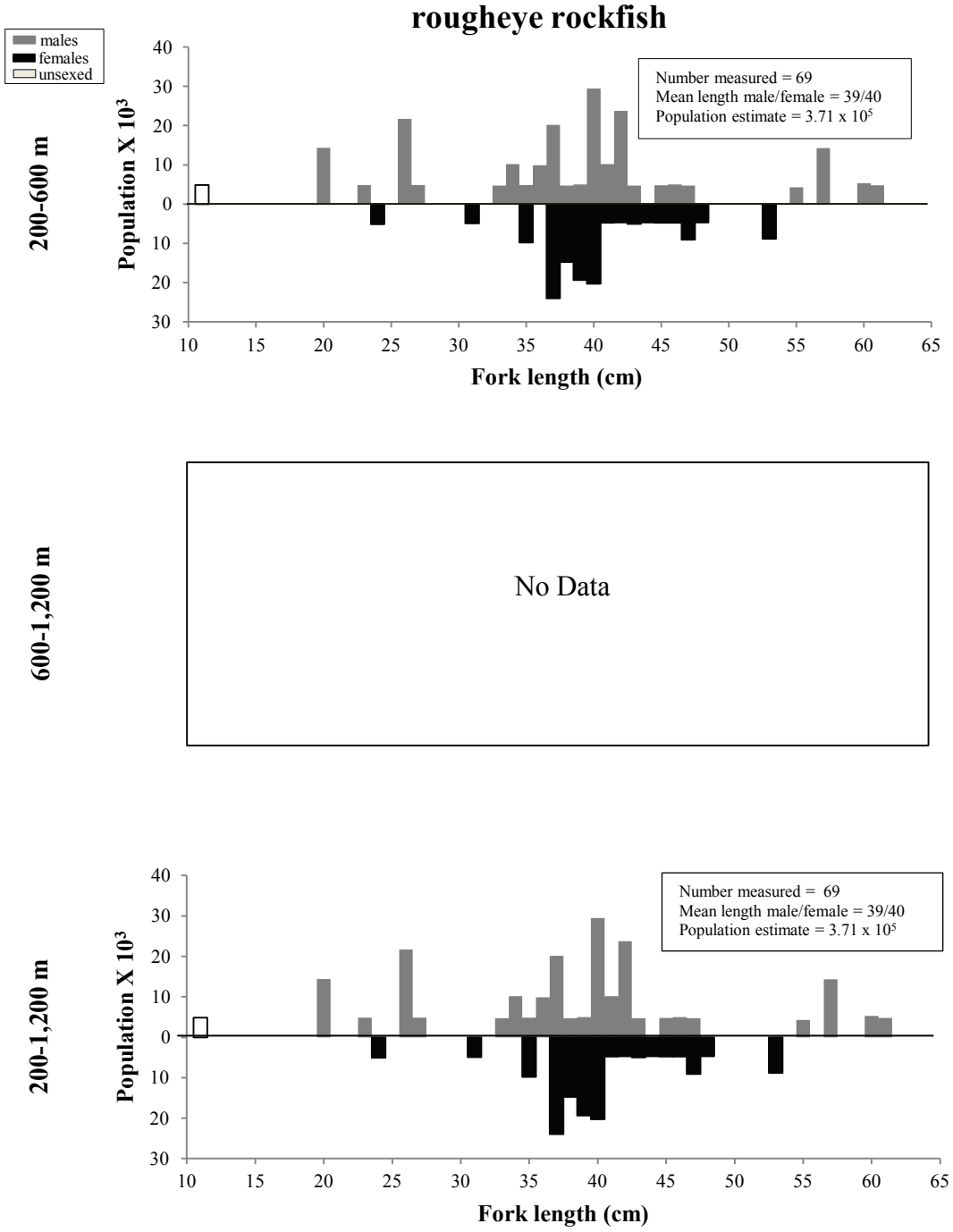


**Figure 37.** - - Size composition of the estimated rougheye rockfish population from the 2012 EBSS survey for all subareas by depth.

**Table 26. - -** Abundance estimates by subarea and depth stratum for rougheye rockfish (*Sebastes aleutianus* ) from the 2012 EBSS survey.

***Sebastes aleutianus*** **rougheye rockfish**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| | **200-400** | 2.89E+02 | 2.80E+05 | 1.44E+04 | 1.23E+10 | 7.20E-01 | 6.97E-01 |
| | **400-600** | 3.11E+01 | 1.75E+04 | 5.05E+02 | 1.05E+08 | 7.66E-02 | 4.31E-02 |
| **1** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **2** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 3.58E+01 | 5.08E+04 | 3.52E+02 | 7.75E+08 | 3.97E-01 | 5.62E-01 |
| | **400-600** | | | | | | |
| **3** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 3.83E+01 | 1.43E+04 | 1.47E+03 | 2.04E+08 | 3.10E-01 | 1.16E-01 |
| | **400-600** | 9.54E+00 | 4.11E+03 | 9.10E+01 | 1.69E+07 | 1.31E-01 | 5.63E-02 |
| **4** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **5** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 1.14E+01 | 4.70E+03 | 1.31E+02 | 2.21E+07 | 4.41E-02 | 1.81E-02 |
| | **400-600** | | | | | | |
| **6** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **4.15E+02** | **3.71E+05** | **1.69E+04** | **1.34E+10** | **1.18E-01** | **1.05E-01** |

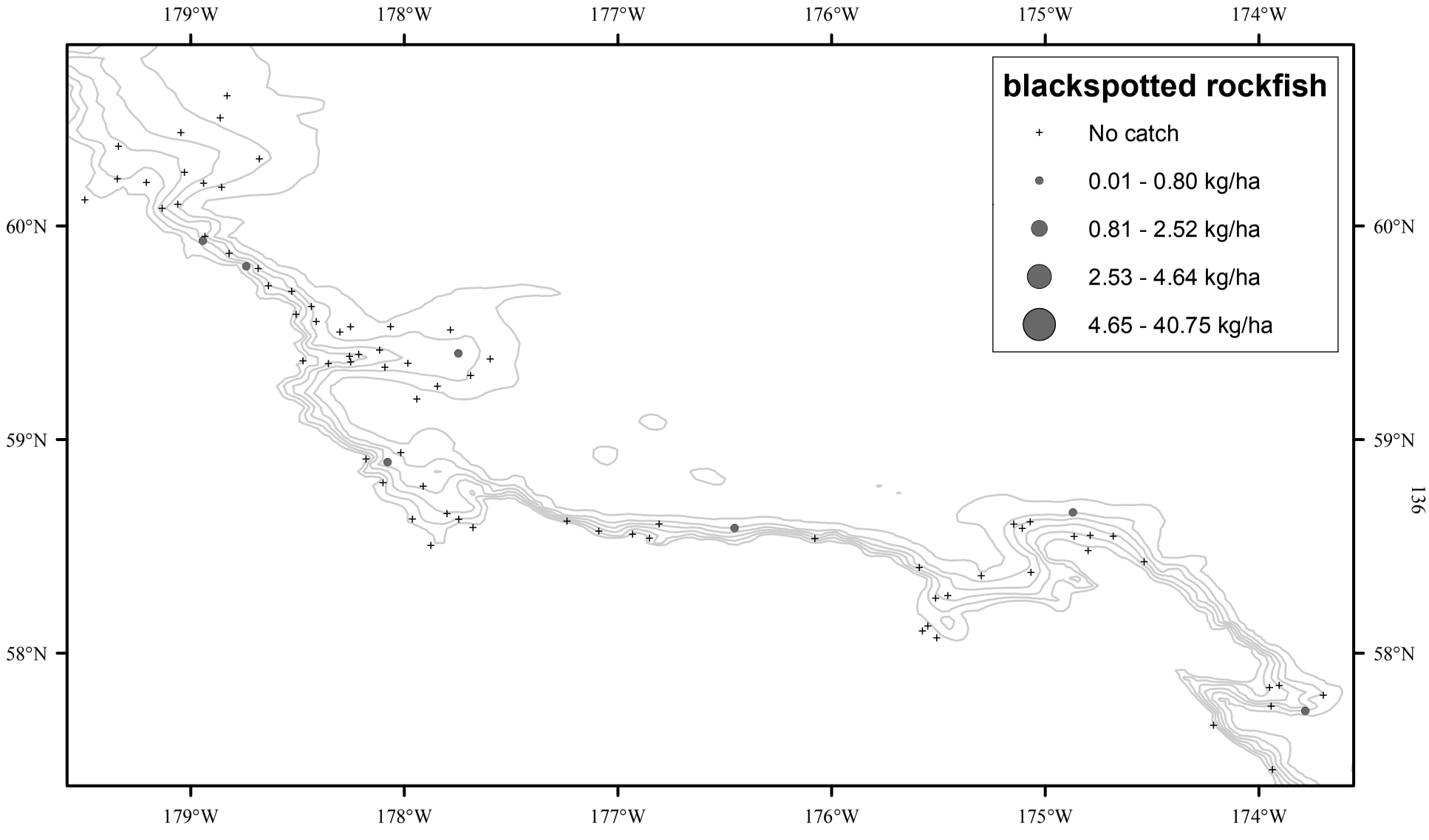




**Figure 38.** - - Distribution and relative abundance of blackspotted rockfish from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

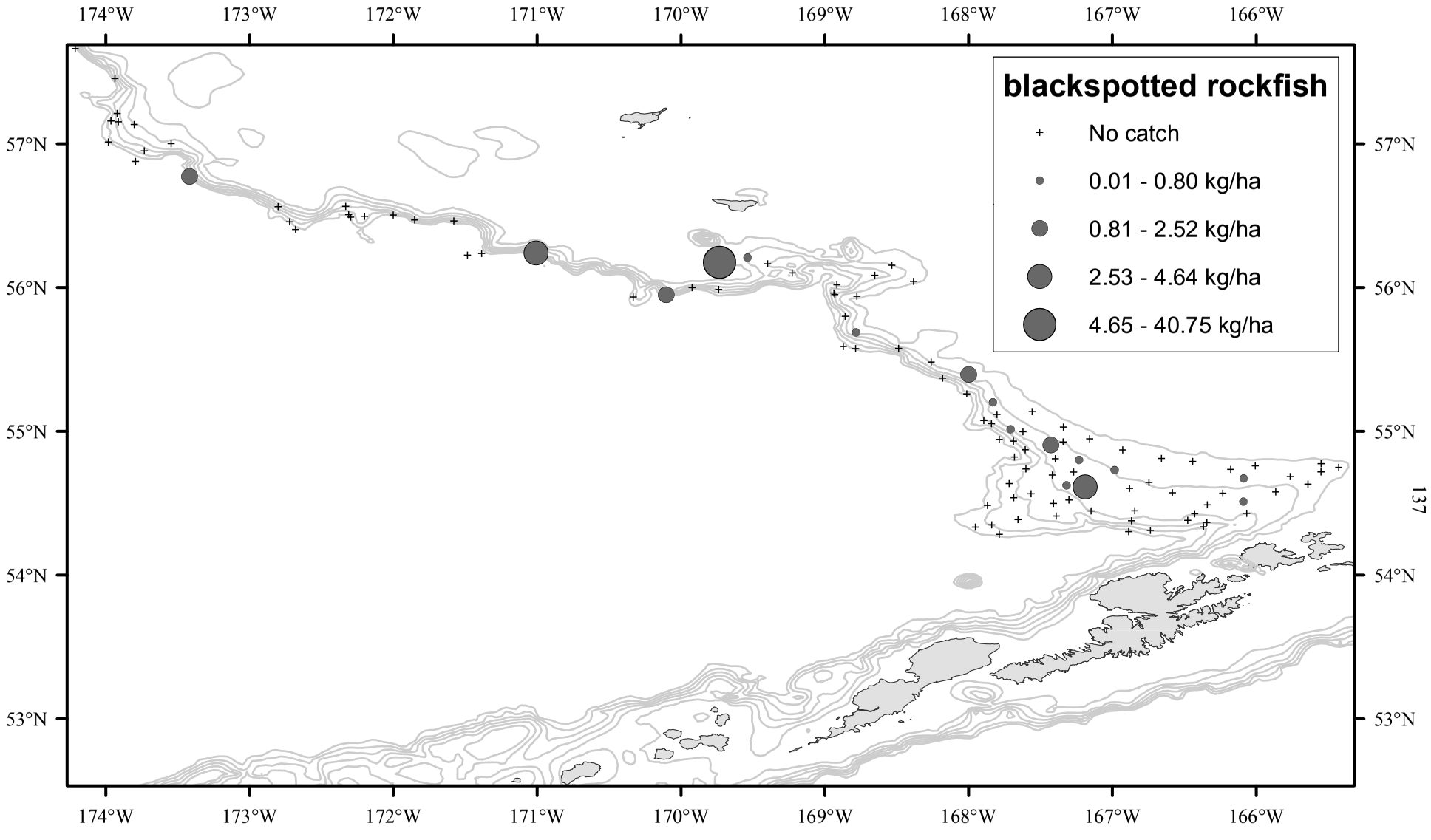


**Figure 38.** - - Continued.

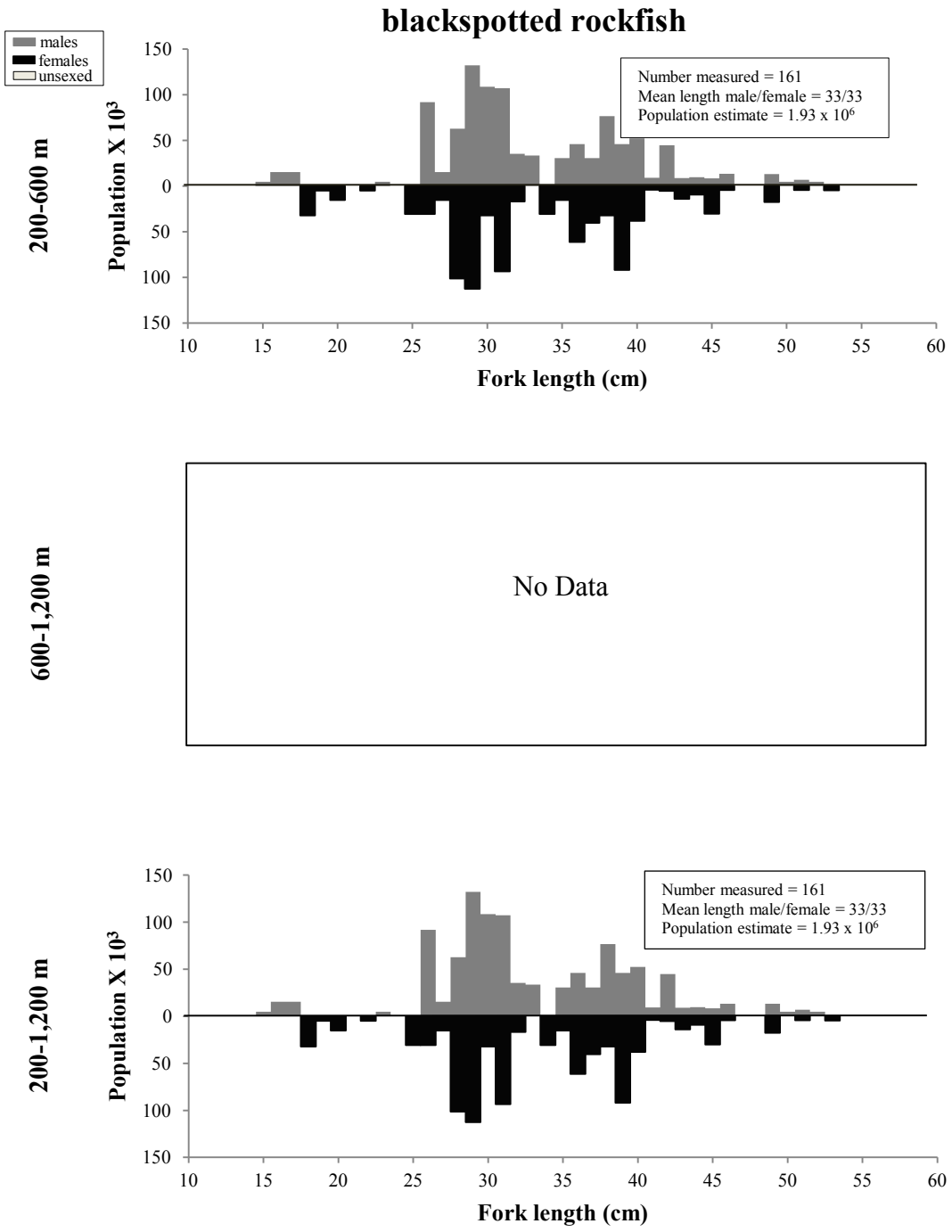


**Figure 38.** - - Size composition of the estimated blackspotted rockfish population from the 2012 EBSS survey for all subareas by depth.

**Table 27. - -** Abundance estimates by subarea and depth stratum for blackspotted rockfish (*Sebastes melanostictus* ) from the 2012 EBSS survey.

***Sebastes melanostictus*** **blackspotted rockfish**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 4.70E+01 | 6.35E+04 | 8.37E+02 | 2.37E+09 | 1.17E-01 | 1.58E-01 |
| | 400-600 | 1.27E+02 | 7.05E+04 | 5.26E+03 | 1.85E+09 | 3.13E-01 | 1.74E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 7.88E+02 | 1.51E+06 | 6.18E+05 | 2.25E+12 | 6.81E+00 | 1.31E+01 |
| | 400-600 | 5.12E+01 | 3.58E+04 | 1.82E+03 | 8.73E+08 | 7.26E-01 | 5.08E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 8.40E+01 | 1.85E+05 | 7.05E+03 | 3.41E+10 | 9.29E-01 | 2.04E+00 |
| | 400-600 | 3.01E+01 | 2.09E+04 | 9.05E+02 | 4.36E+08 | 3.39E-01 | 2.36E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 1.72E+01 | 1.53E+04 | 1.27E+02 | 1.18E+08 | 1.39E-01 | 1.24E-01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 4.16E+00 | 5.94E+03 | 1.73E+01 | 3.53E+07 | 9.81E-02 | 1.40E-01 |
| | 400-600 | 5.95E+00 | 2.74E+03 | 3.54E+01 | 7.48E+06 | 1.40E-01 | 6.43E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | | | | | | |
| | 400-600 | 2.42E+01 | 1.67E+04 | 1.94E+02 | 8.99E+07 | 1.42E-01 | 9.81E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **1.18E+03** | **1.93E+06** | **6.34E+05** | **2.29E+12** | **3.34E-01** | **5.39E-01** |

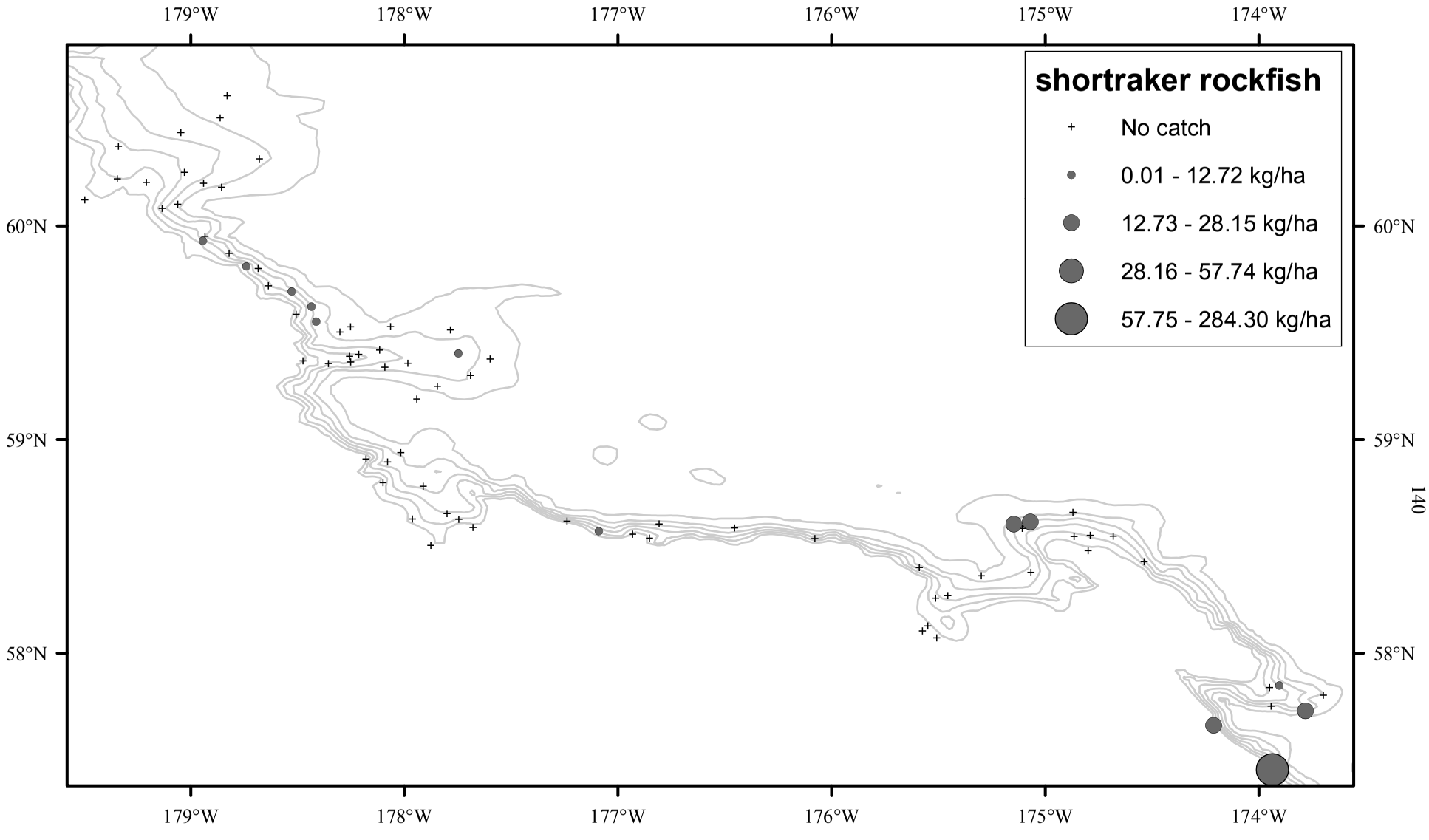


**Figure 40.** - - Distribution and relative abundance of shortraker rockfish from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

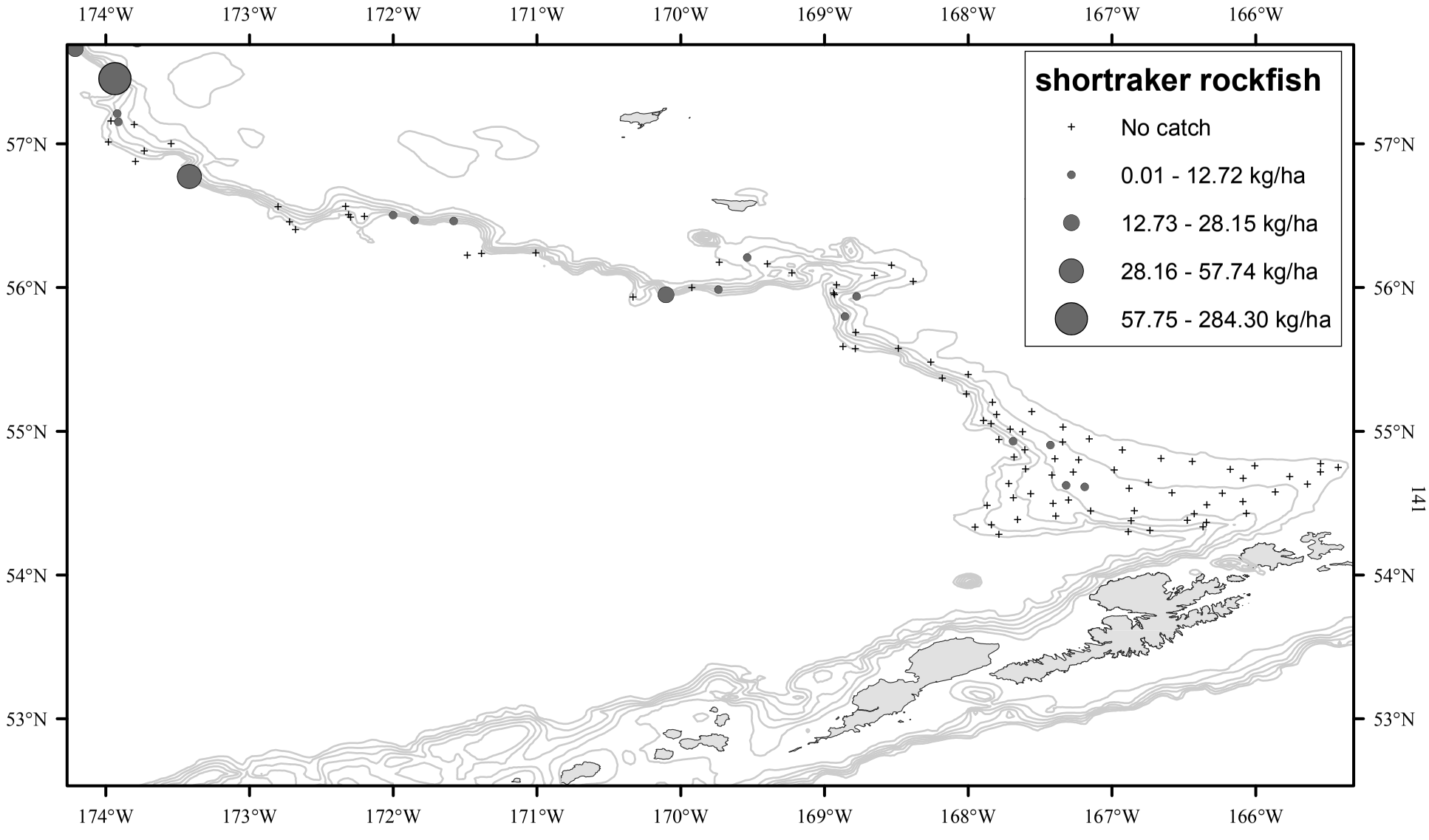




**Figure 40.** - - Continued.

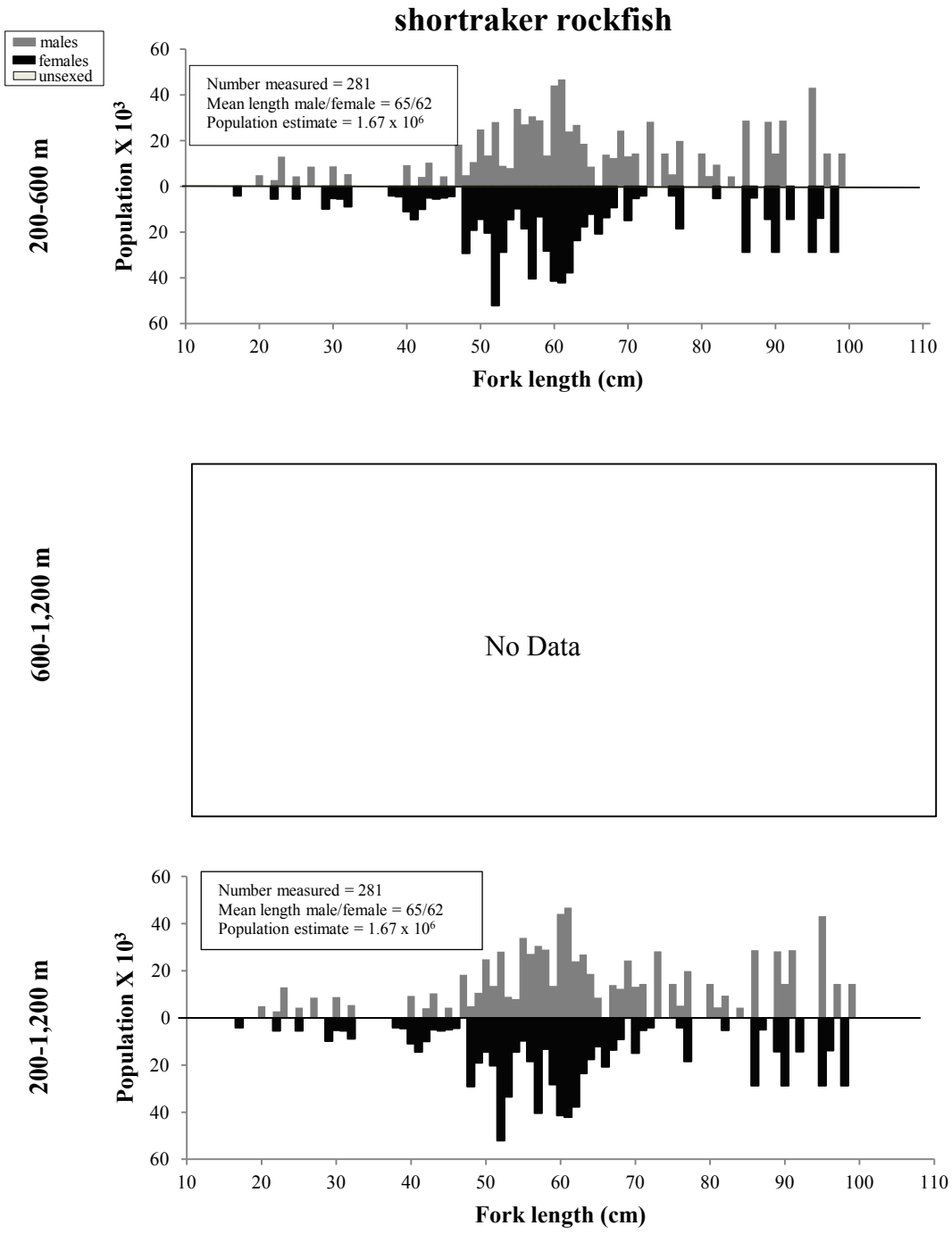


**Figure 41.** - - Size composition of the estimated shortraker rockfish population from the 2012 EBSS survey for all subareas by depth.

**Table 28. - -** Abundance estimates by subarea and depth stratum for shortraker rockfish (*Sebastes borealis* ) from the 2012 EBSS survey.

***Sebastes borealis*** **shortraker rockfish**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| | **200-400** | | | | | | |
| | **400-600** | 1.83E+02 | 5.64E+04 | 2.71E+04 | 2.20E+09 | 4.50E-01 | 1.39E-01 |
| **1** | **600-800** | 1.26E+01 | 4.79E+03 | 1.59E+02 | 2.30E+07 | 7.23E-02 | 2.75E-02 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 3.19E+01 | 5.07E+03 | 1.02E+03 | 2.57E+07 | 2.76E-01 | 4.38E-02 |
| | **400-600** | 7.60E+02 | 2.53E+05 | 1.85E+05 | 2.64E+10 | 1.08E+01 | 3.59E+00 |
| **2** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 5.19E+03 | 4.99E+05 | 2.63E+07 | 2.37E+11 | 5.74E+01 | 5.53E+00 |
| | **400-600** | 1.40E+03 | 4.71E+05 | 8.96E+05 | 8.85E+10 | 1.58E+01 | 5.32E+00 |
| **3** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 8.72E+02 | 1.46E+05 | 3.23E+05 | 1.12E+10 | 7.06E+00 | 1.18E+00 |
| | **400-600** | 6.30E+02 | 1.77E+05 | 1.51E+05 | 1.10E+10 | 8.62E+00 | 2.42E+00 |
| **4** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | 4.19E+01 | 1.37E+04 | 1.75E+03 | 1.88E+08 | 9.83E-01 | 3.22E-01 |
| **5** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 1.10E+01 | 4.53E+03 | 1.20E+02 | 2.05E+07 | 4.22E-02 | 1.75E-02 |
| | **400-600** | 1.55E+02 | 5.04E+04 | 7.39E+03 | 4.92E+08 | 9.11E-01 | 2.96E-01 |
| **6** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **9.28E+03** | **1.68E+06** | **2.79E+07** | **3.77E+11** | **2.80E+00** | **5.16E-01** |

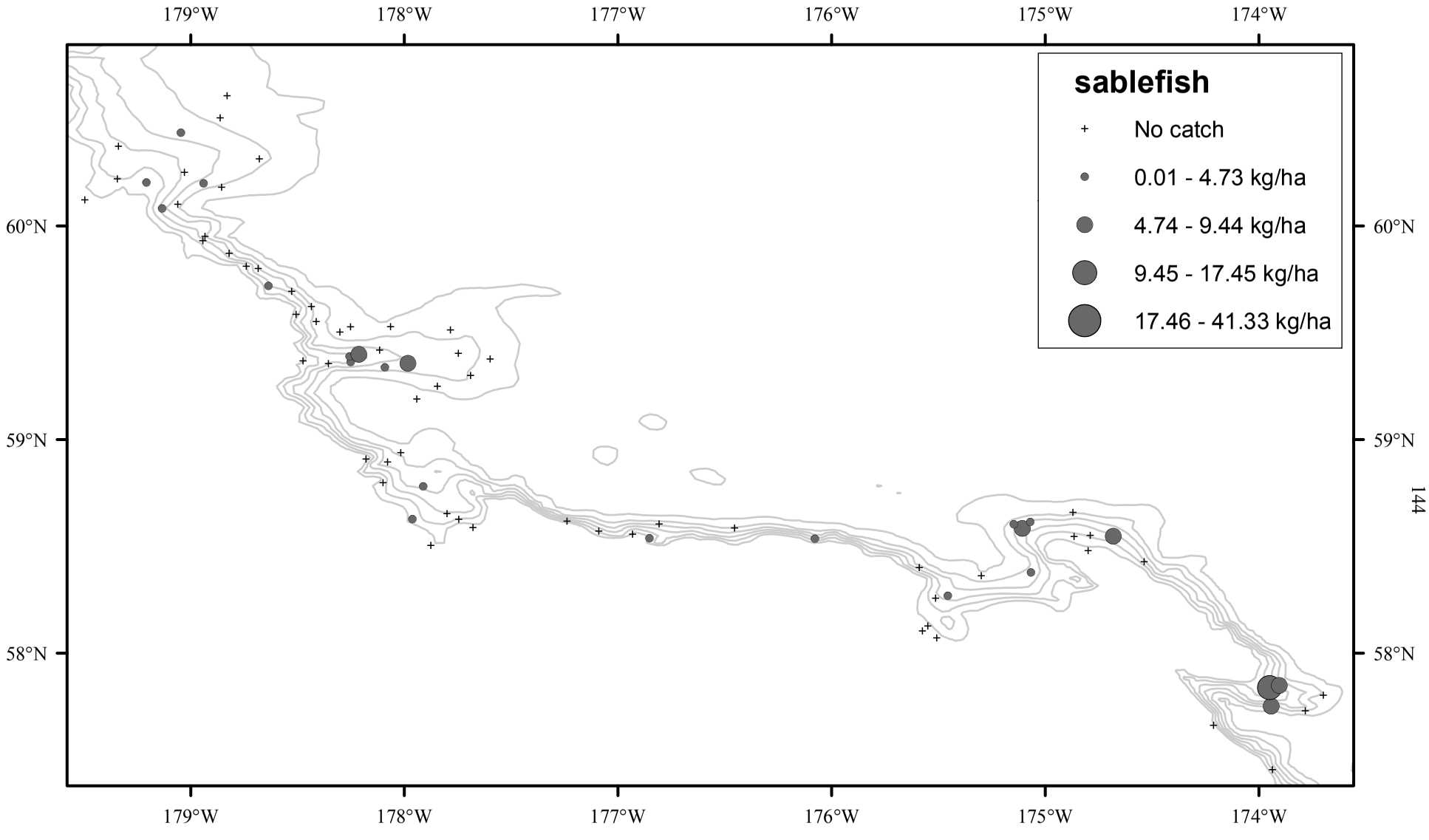


**Figure 42.** - - Distribution and relative abundance of sablefish from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

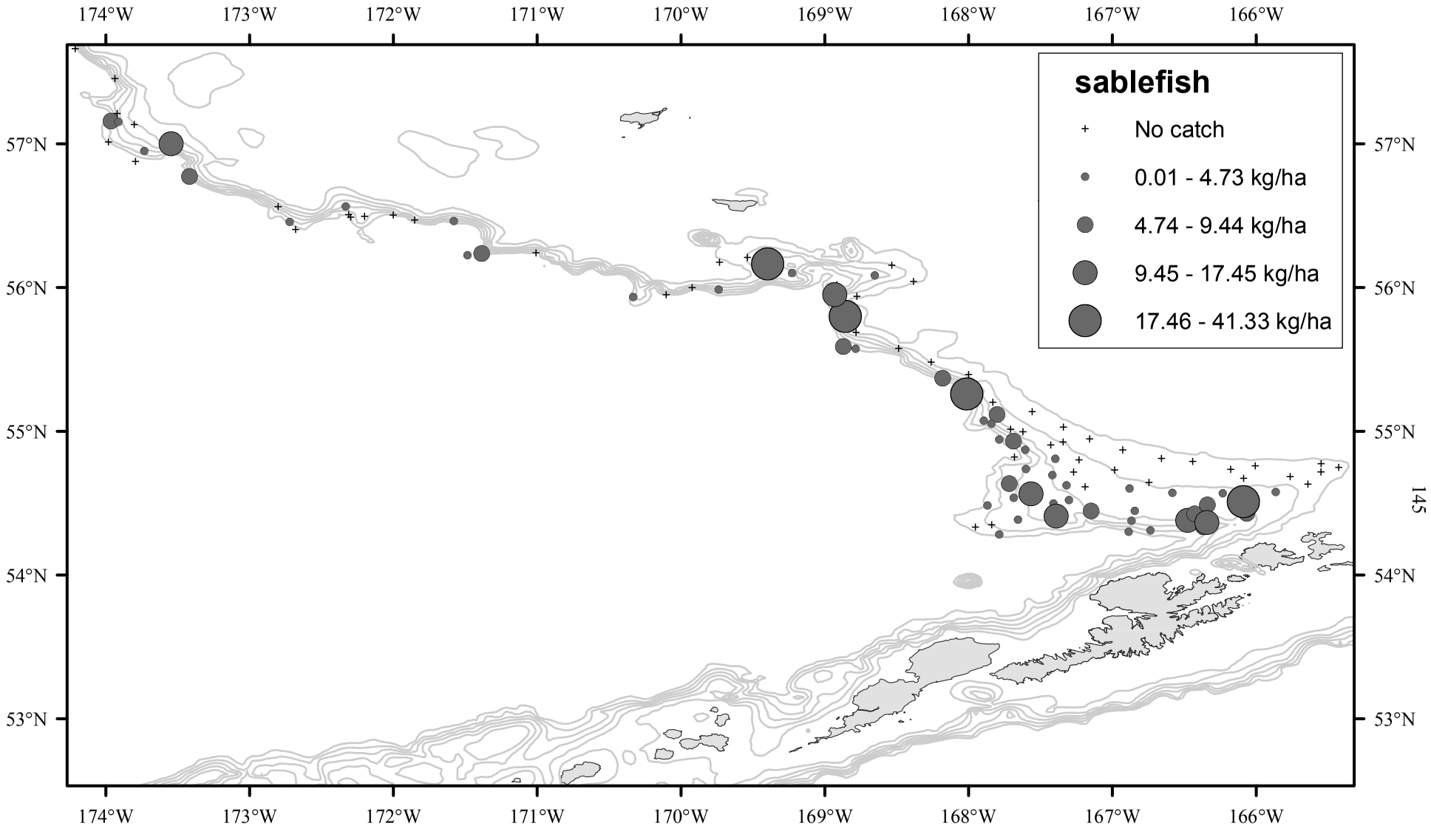


**Figure 42.** - - Continued.

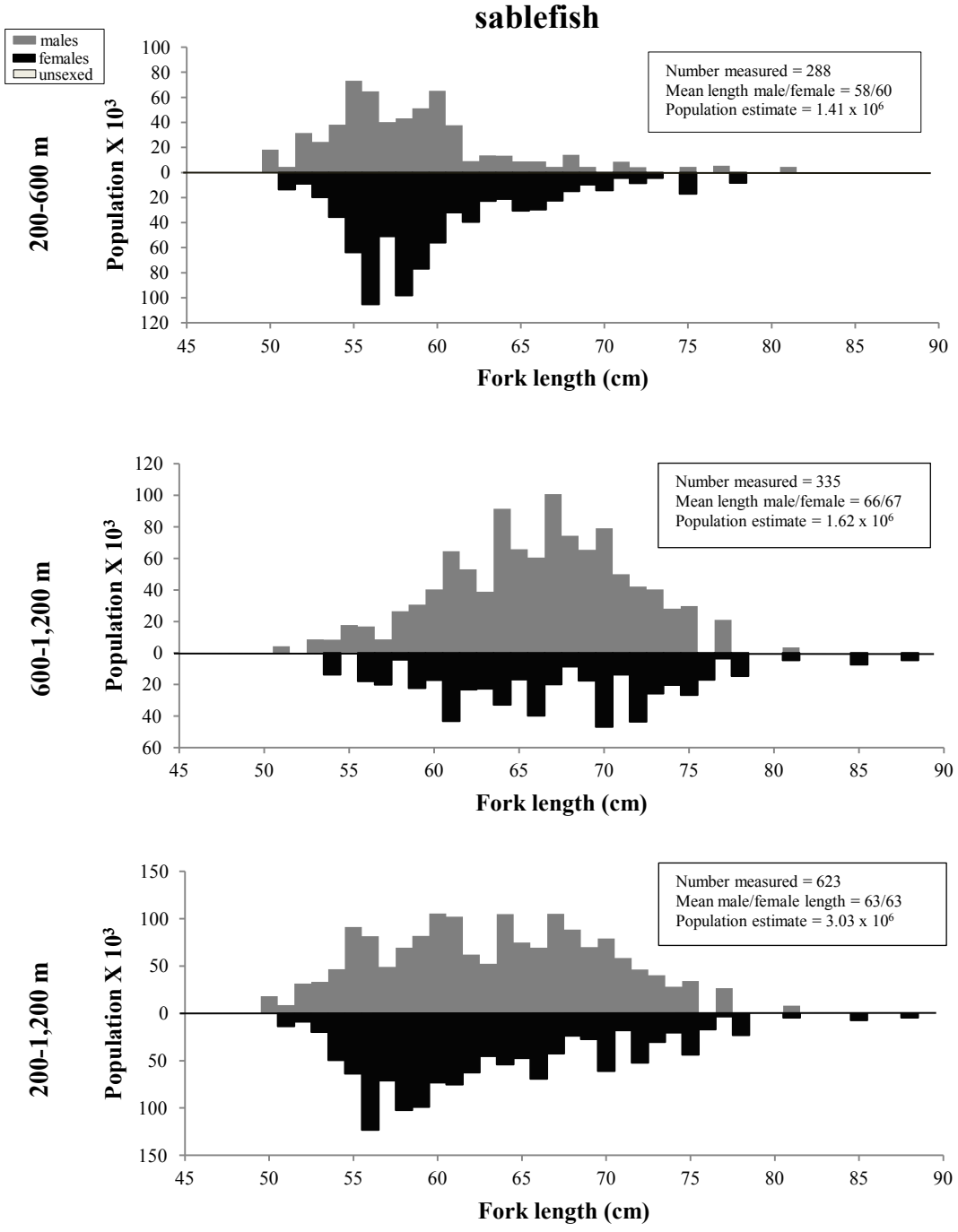


**Figure 43.** - - Size composition of the estimated sablefish population from the 2012 EBSS survey for all subareas by depth.

**Table 29. - -** Abundance estimates by subarea and depth stratum for sablefish (*Anoplopoma fimbria* ) from the 2012 EBSS survey.

***Anoplopoma fimbria*** **sablefish**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| | **200-400** | | | | | | |
| | **400-600** | 1.88E+03 | 8.88E+05 | 5.15E+05 | 1.26E+11 | 4.63E+00 | 2.19E+00 |
| **1** | **600-800** | 1.92E+03 | 6.82E+05 | 3.57E+05 | 4.93E+10 | 1.10E+01 | 3.92E+00 |
| | **800-1,000** | 4.60E+02 | 1.45E+05 | 2.71E+04 | 3.38E+09 | 3.40E+00 | 1.07E+00 |
| | **1,000-1,200** | 1.10E+02 | 3.15E+04 | 1.76E+03 | 1.62E+08 | 9.97E-01 | 2.85E-01 |
| | **200-400** | | | | | | |
| | **400-600** | 6.34E+02 | 2.44E+05 | 3.16E+05 | 4.61E+10 | 9.00E+00 | 3.46E+00 |
| **2** | **600-800** | 9.22E+02 | 2.68E+05 | 1.87E+05 | 1.53E+10 | 1.56E+01 | 4.54E+00 |
| | **800-1,000** | 1.40E+02 | 3.95E+04 | 1.58E+03 | 1.56E+08 | 2.53E+00 | 7.15E-01 |
| | **1,000-1,200** | 1.41E+02 | 3.41E+04 | 1.39E+04 | 6.57E+08 | 2.64E+00 | 6.37E-01 |
| | **200-400** | | | | | | |
| | **400-600** | 1.37E+02 | 4.18E+04 | 9.10E+03 | 8.59E+08 | 1.55E+00 | 4.72E-01 |
| **3** | **600-800** | 4.02E+02 | 1.14E+05 | 3.37E+03 | 2.75E+08 | 4.42E+00 | 1.25E+00 |
| | **800-1,000** | 2.17E+02 | 5.72E+04 | 3.99E+04 | 2.61E+09 | 2.97E+00 | 7.81E-01 |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | 2.85E+02 | 1.06E+05 | 3.79E+03 | 1.34E+09 | 3.90E+00 | 1.45E+00 |
| **4** | **600-800** | 3.06E+02 | 8.47E+04 | 1.81E+04 | 1.59E+09 | 4.42E+00 | 1.22E+00 |
| | **800-1,000** | 2.05E+02 | 6.26E+04 | 4.19E+04 | 3.92E+09 | 2.89E+00 | 8.85E-01 |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | 2.83E+01 | 1.19E+04 | 2.79E+02 | 4.72E+07 | 6.64E-01 | 2.79E-01 |
| **5** | **600-800** | 3.19E+01 | 1.01E+04 | 1.02E+03 | 1.02E+08 | 7.40E-01 | 2.34E-01 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | 5.18E+01 | 7.38E+03 | 2.68E+03 | 5.45E+07 | 9.09E-01 | 1.29E-01 |
| | **200-400** | | | | | | |
| | **400-600** | 2.51E+02 | 1.14E+05 | 1.25E+04 | 2.77E+09 | 1.47E+00 | 6.70E-01 |
| **6** | **600-800** | 2.22E+02 | 6.95E+04 | 1.44E+04 | 1.11E+09 | 2.41E+00 | 7.57E-01 |
| | **800-1,000** | 2.81E+01 | 8.20E+03 | 7.87E+02 | 6.73E+07 | 4.35E-01 | 1.27E-01 |
| | **1,000-1,200** | 2.15E+01 | 6.14E+03 | 4.62E+02 | 3.78E+07 | 4.33E-01 | 1.24E-01 |
| **1-6** | **200-1,200** | **8.40E+03** | **3.03E+06** | **1.57E+06** | **2.56E+11** | **9.15E-01** | **3.34E+01** |

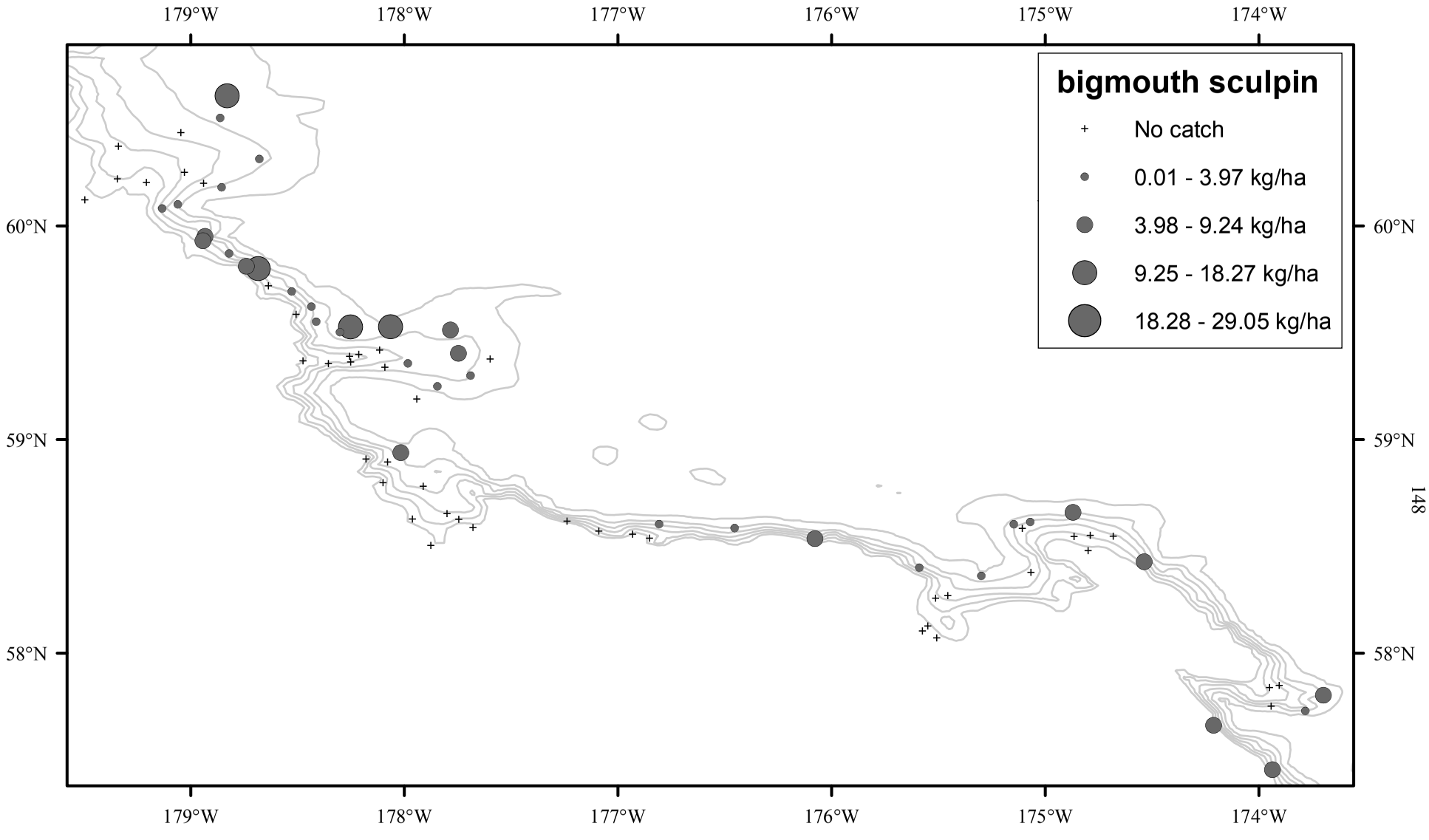


**Figure 44.** - - Distribution and relative abundance of bigmouth sculpin from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

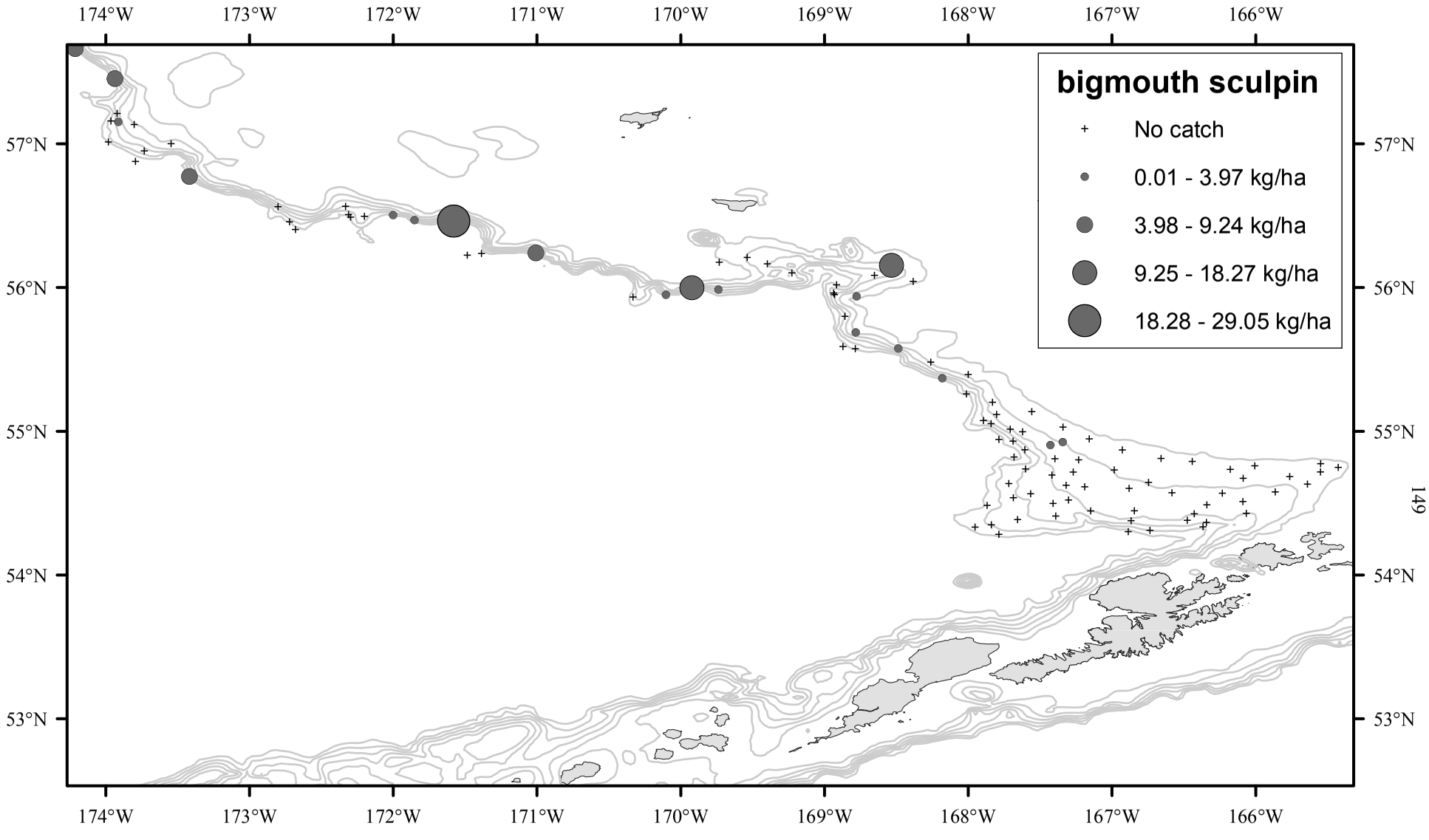




**Figure 44.** - - Continued.

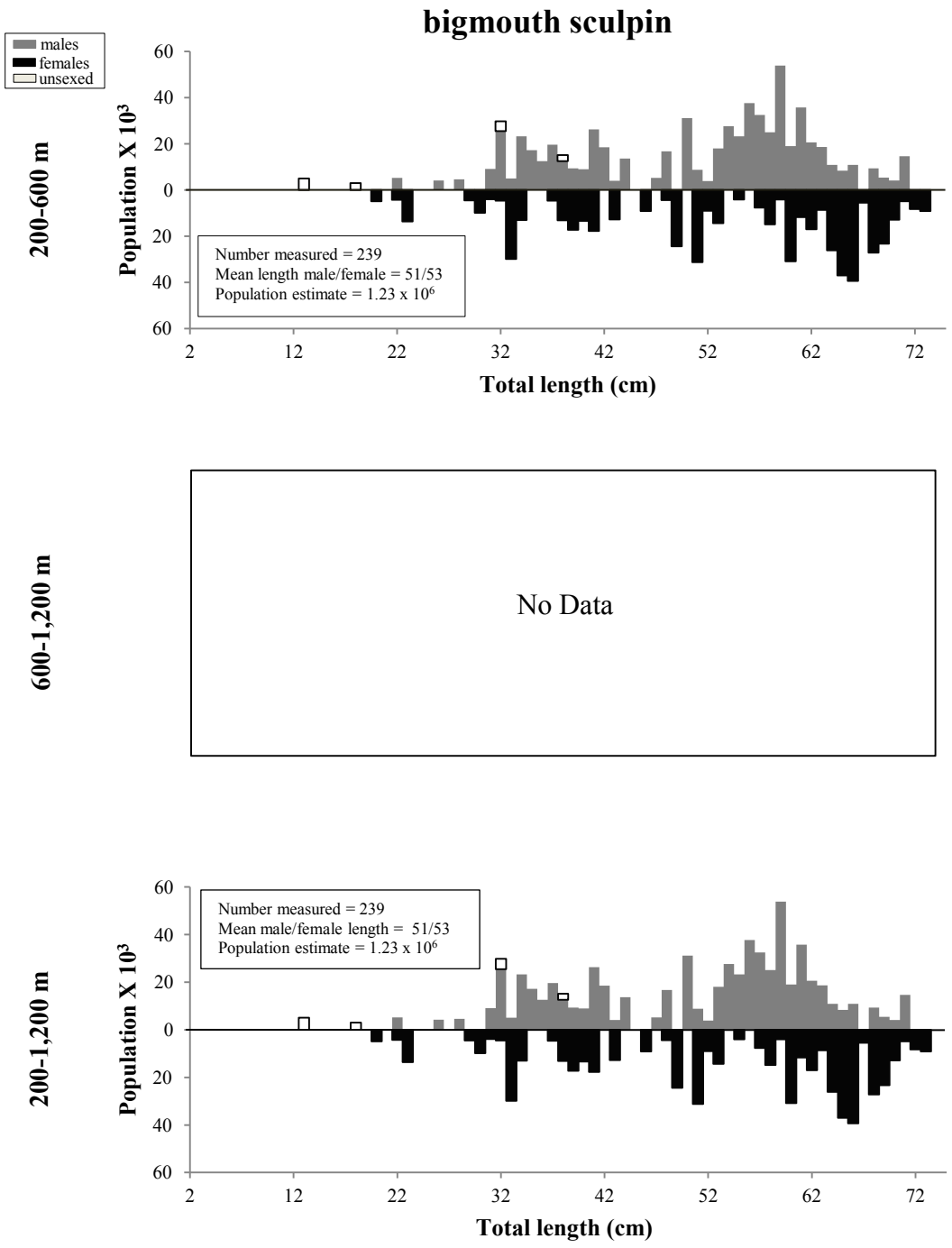


**Figure 45.** - - Size composition of the estimated bigmouth sculpin population from the 2012 EBSS survey for all subareas by depth.

**Table 30. - -** Abundance estimates by subarea and depth stratum for bigmouth sculpin (*Hemitripterus bolini* ) from the 2012 EBSS survey.

***Hemitripterus bolini*** **bigmouth sculpin**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 7.72E+01 | 1.50E+04 | 3.03E+03 | 1.20E+08 | 1.92E-01 | 3.74E-02 |
| | 400-600 | 4.62E+01 | 1.36E+04 | 1.06E+03 | 9.67E+07 | 1.14E-01 | 3.34E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 5.50E+02 | 1.38E+05 | 9.37E+04 | 6.41E+09 | 4.76E+00 | 1.19E+00 |
| | 400-600 | 4.75E+01 | 2.24E+04 | 8.17E+02 | 2.92E+08 | 6.74E-01 | 3.18E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 3.08E+02 | 9.88E+04 | 2.94E+04 | 3.09E+09 | 3.40E+00 | 1.09E+00 |
| | 400-600 | 5.99E+02 | 1.34E+05 | 2.50E+05 | 8.49E+09 | 6.75E+00 | 1.52E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 5.95E+02 | 1.49E+05 | 1.12E+04 | 1.27E+09 | 4.81E+00 | 1.20E+00 |
| | 400-600 | 6.26E+01 | 1.20E+04 | 2.05E+03 | 6.61E+07 | 8.57E-01 | 1.64E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 1.12E+02 | 2.89E+04 | 7.32E+03 | 2.43E+08 | 2.64E+00 | 6.82E-01 |
| | 400-600 | 5.37E+01 | 1.40E+04 | 2.89E+03 | 1.95E+08 | 1.26E+00 | 3.28E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 1.27E+03 | 4.43E+05 | 1.16E+05 | 2.28E+10 | 4.89E+00 | 1.71E+00 |
| | 400-600 | 4.19E+02 | 1.60E+05 | 2.30E+04 | 5.42E+09 | 2.45E+00 | 9.36E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **4.14E+03** | **1.23E+06** | **5.41E+05** | **4.85E+10** | **1.31E+00** | **3.91E-01** |

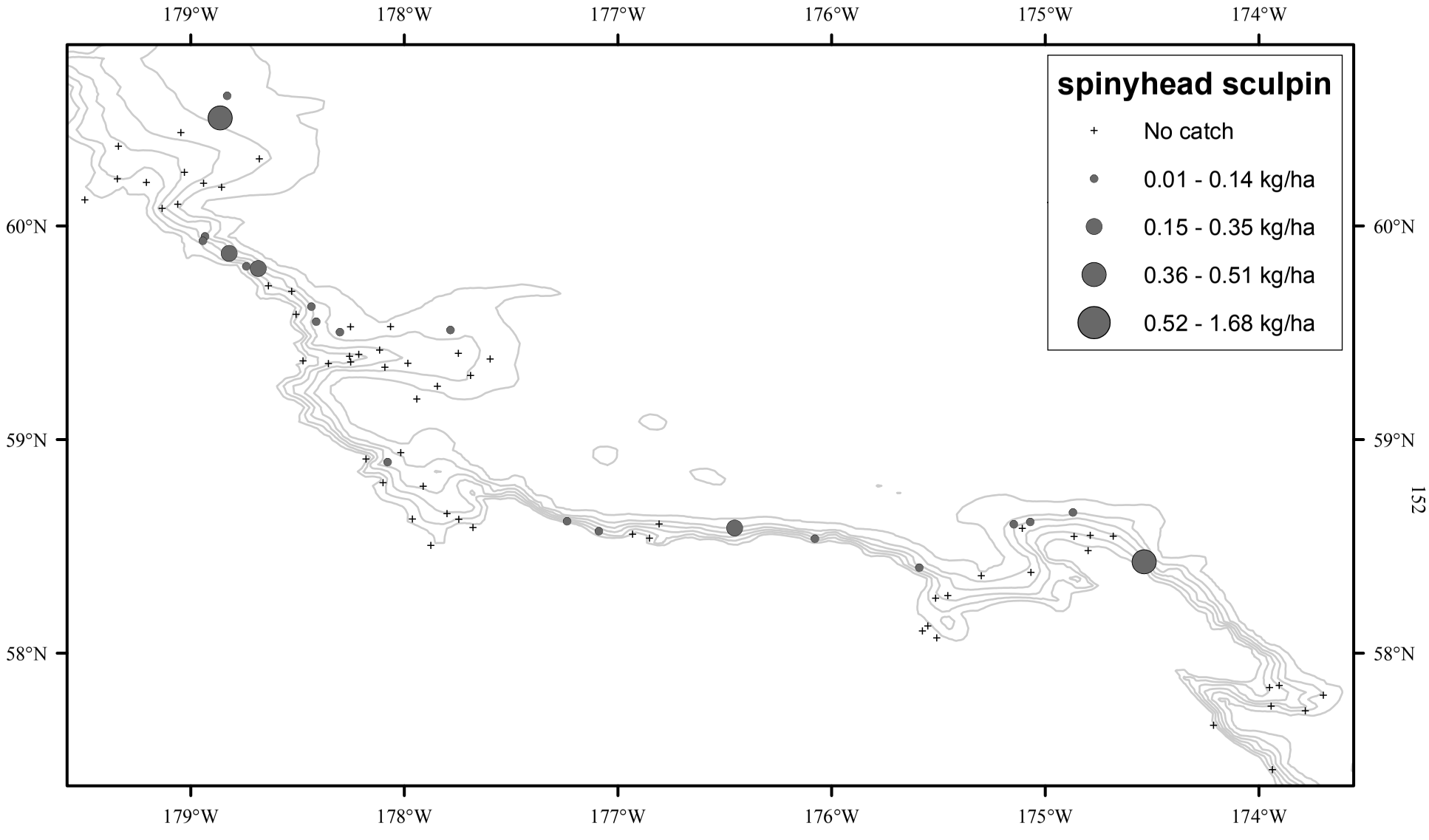


**Figure 46.** - - Distribution and relative abundance of spinyhead sculpin from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

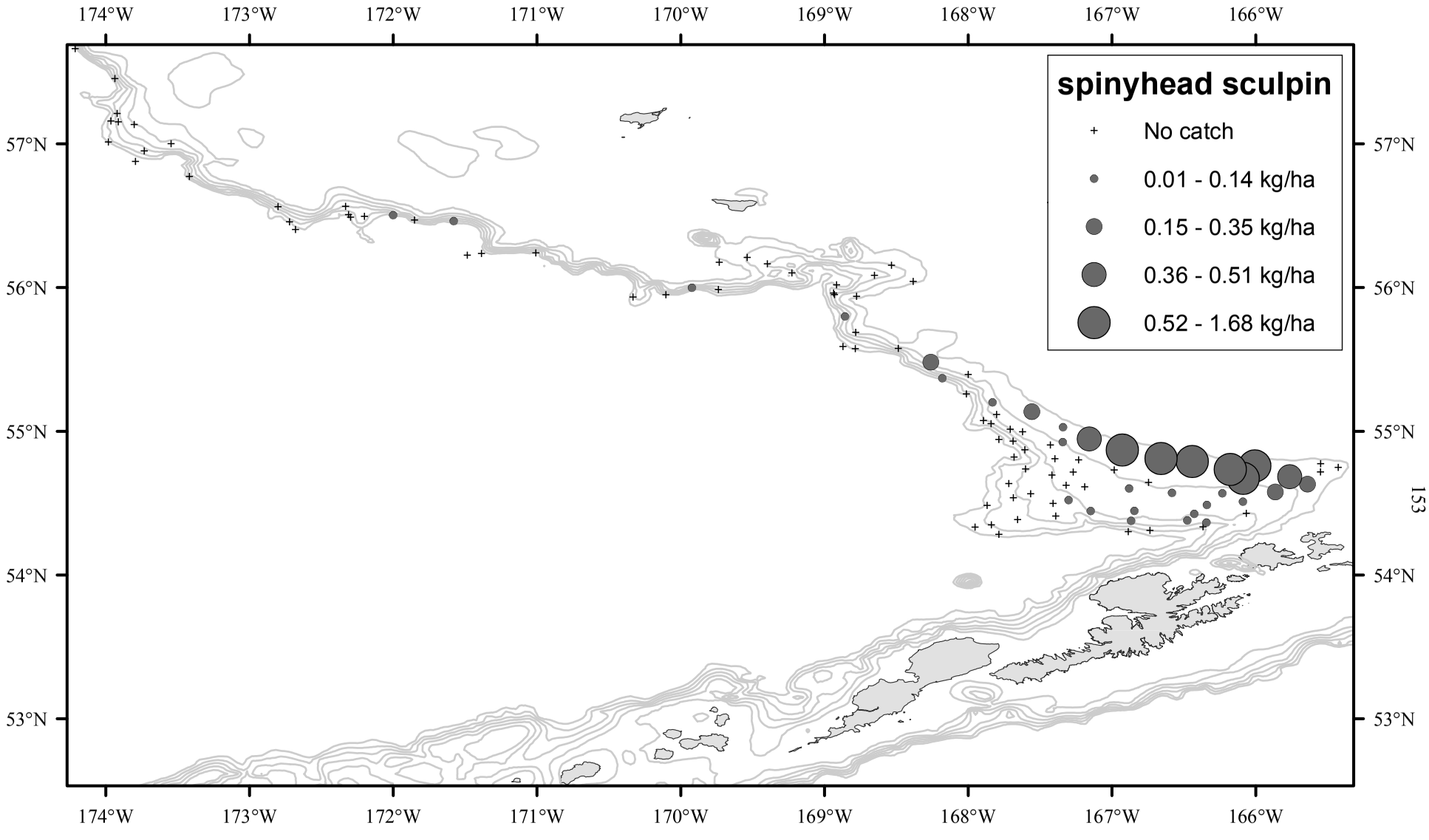


**Figure 46.** - - Continued.

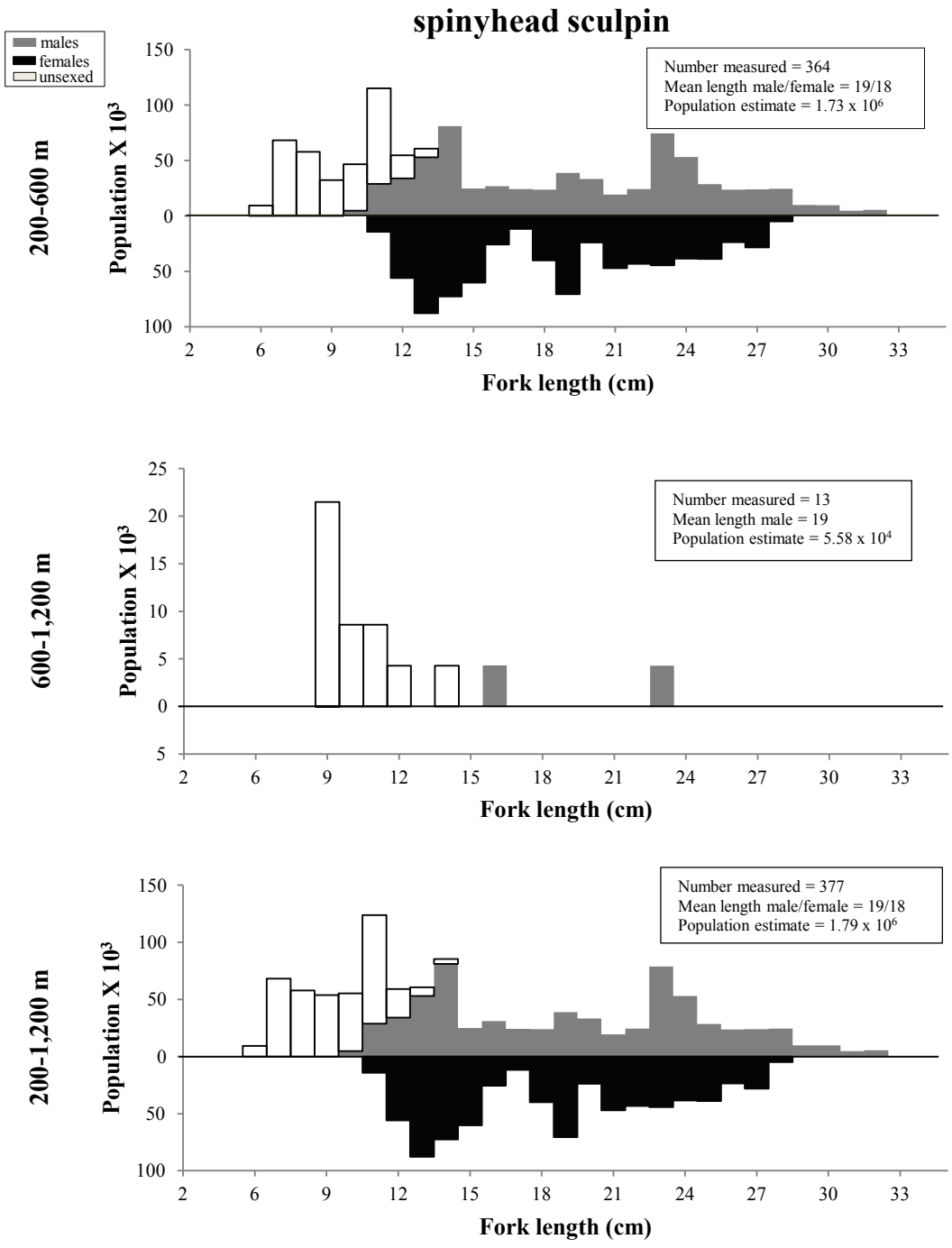


**Figure 47.** - - Size composition of the estimated spinyhead sculpin population from the 2012 EBSS survey for all subareas by depth.

**Table 31. - -** Abundance estimates by subarea and depth stratum for spinyhead sculpin (*Dasycottus setiger* ) from the 2012 EBSS survey.

***Dasycottus setiger*** **spinyhead sculpin**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 1.60E+02 | 1.09E+06 | 1.87E+03 | 1.12E+11 | 3.98E-01 | 2.72E+00 |
| | 400-600 | 1.16E+01 | 2.38E+05 | 1.87E+01 | 5.66E+09 | 2.87E-02 | 5.86E-01 |
| | 600-800 | 2.20E+00 | 5.59E+04 | 1.46E+00 | 1.81E+09 | 1.26E-02 | 3.21E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 1.64E-01 | 1.37E+04 | 2.69E-02 | 1.87E+08 | 1.42E-03 | 1.18E-01 |
| | 400-600 | 2.08E-01 | 1.35E+04 | 4.31E-02 | 1.83E+08 | 2.95E-03 | 1.92E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | | | | | | |
| | 400-600 | 8.42E-01 | 2.97E+04 | 4.45E-01 | 5.52E+08 | 9.50E-03 | 3.35E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 1.11E+01 | 1.07E+05 | 6.74E+01 | 9.16E+09 | 9.00E-02 | 8.68E-01 |
| | 400-600 | 1.48E+00 | 3.60E+04 | 9.84E-01 | 5.95E+08 | 2.03E-02 | 4.92E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 2.61E+00 | 1.16E+04 | 5.13E+00 | 7.06E+07 | 6.16E-02 | 2.74E-01 |
| | 400-600 | 1.55E+00 | 3.34E+04 | 1.35E+00 | 5.22E+08 | 3.65E-02 | 7.83E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 2.42E+01 | 1.29E+05 | 8.00E+01 | 2.03E+09 | 9.32E-02 | 4.96E-01 |
| | 400-600 | 2.79E+00 | 2.79E+04 | 3.32E+00 | 2.86E+08 | 1.63E-02 | 1.64E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **2.19E+02** | **1.79E+06** | **2.05E+03** | **1.33E+11** | **6.36E-02** | **5.26E-01** |

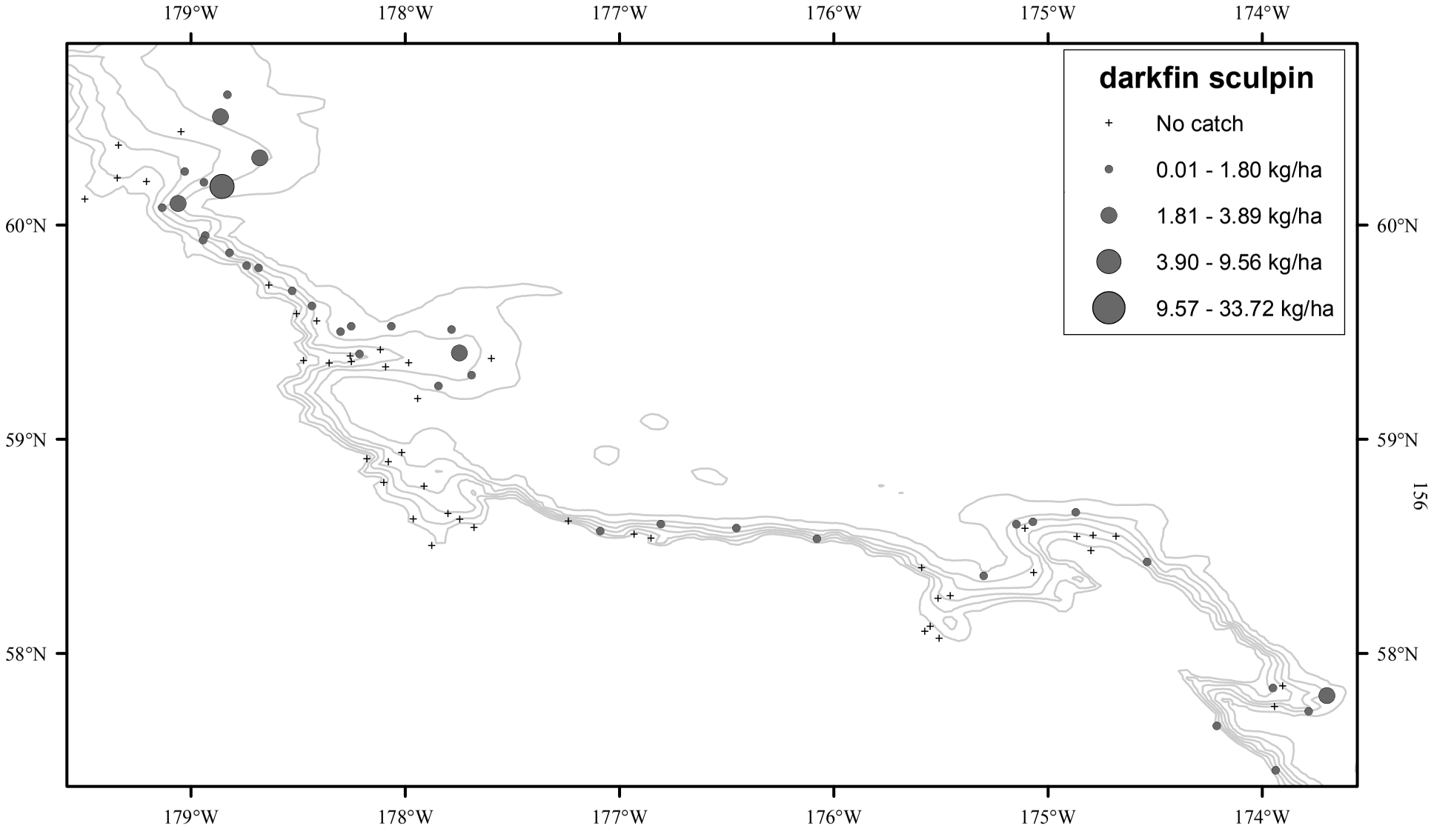


**Figure 48.** - - Distribution and relative abundance of darkfin sculpin from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

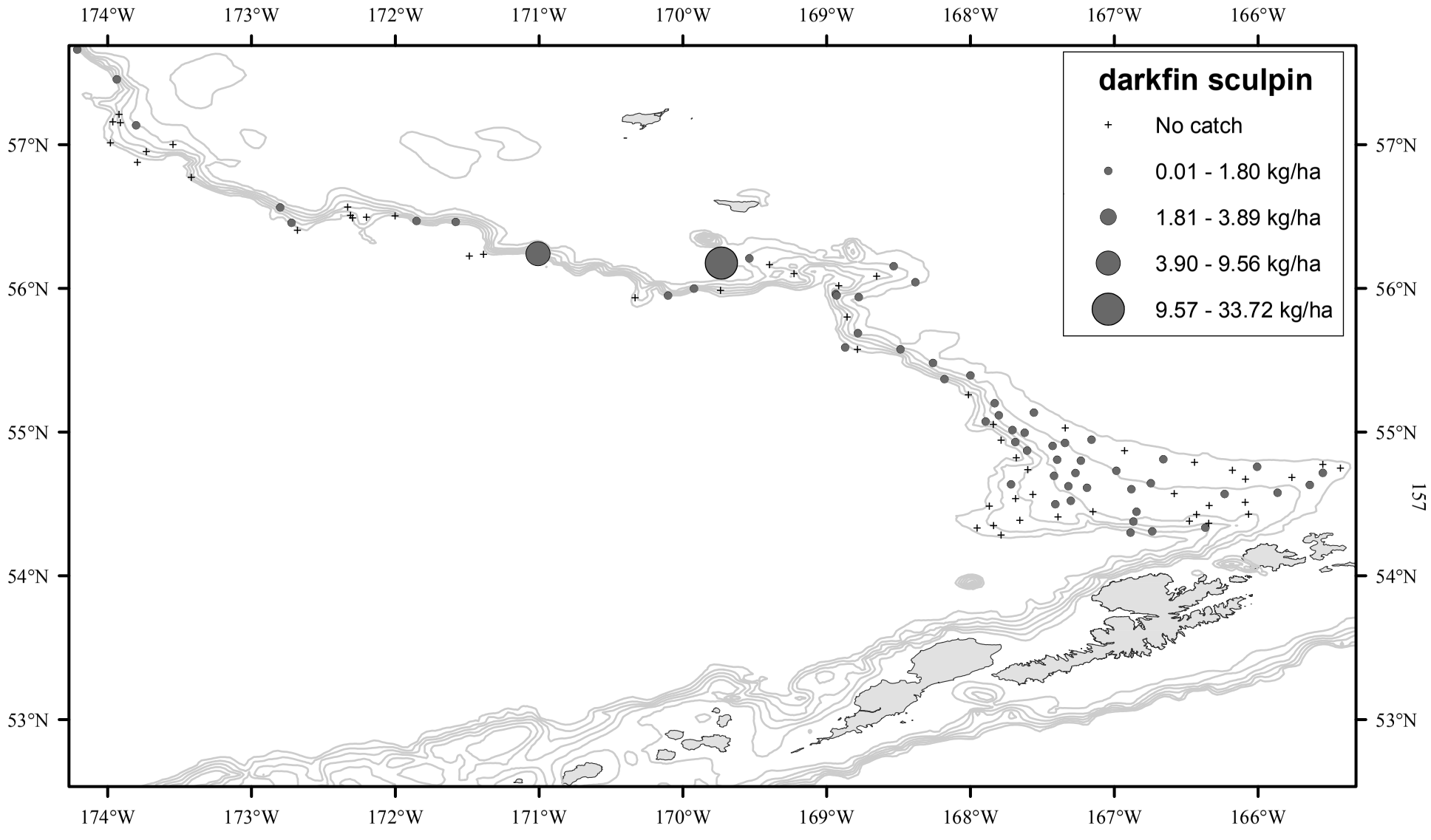




**Figure 48.** - - Continued.

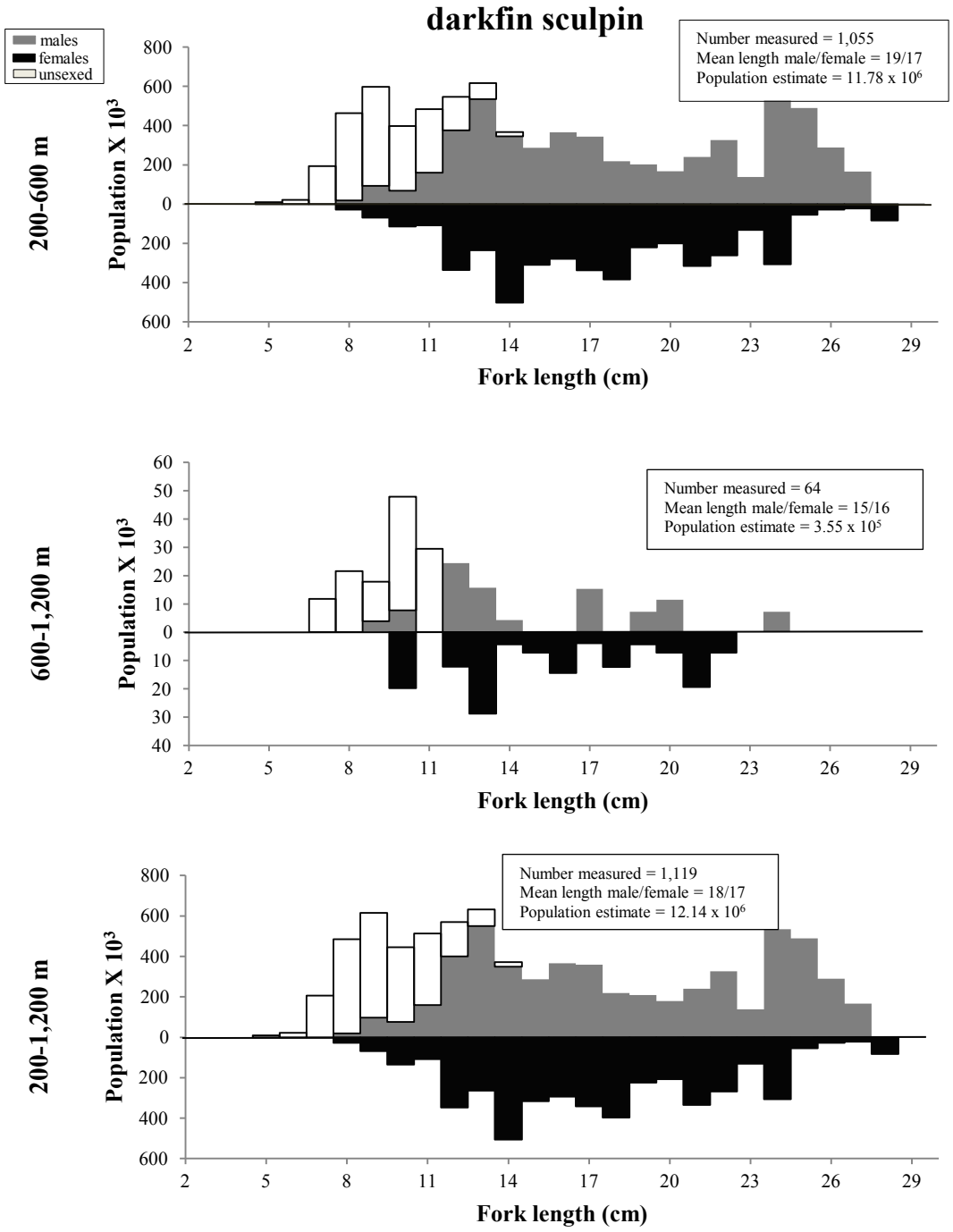


**Figure 49.** - - Size composition of the estimated darkfin sculpin population from the 2012 EBSS survey for all subareas by depth.

**Table 32. - -** Abundance estimates by subarea and depth stratum for darkfin sculpin (*Malacocottus zonurus* ) from the 2012 EBSS survey.

***Malacocottus zonurus*** **darkfin sculpin**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 4.68E+01 | 6.06E+05 | 4.56E+02 | 4.81E+10 | 1.17E-01 | 1.51E+00 |
| | 400-600 | 1.87E+01 | 7.34E+05 | 3.71E+01 | 7.14E+10 | 4.60E-02 | 1.81E+00 |
| | 600-800 | 1.85E+01 | 2.20E+05 | 2.05E+02 | 1.76E+10 | 1.06E-01 | 1.26E+00 |
| | 800-1,000 | 3.29E-01 | 1.96E+04 | 3.04E-02 | 1.09E+08 | 2.43E-03 | 1.45E-01 |
| | 1,000-1,200 | 1.03E-01 | 4.29E+03 | 1.06E-02 | 1.84E+07 | 9.29E-04 | 3.87E-02 |
| 2 | 200-400 | 6.80E+02 | 2.79E+06 | 4.16E+05 | 4.31E+12 | 5.87E+00 | 2.41E+01 |
| | 400-600 | 1.77E+01 | 3.60E+05 | 2.64E+02 | 8.33E+10 | 2.50E-01 | 5.10E+00 |
| | 600-800 | 9.59E-01 | 4.95E+03 | 9.20E-01 | 2.45E+07 | 1.62E-02 | 8.36E-02 |
| | 800-1,000 | 8.55E-01 | 2.04E+04 | 7.32E-01 | 4.15E+08 | 1.55E-02 | 3.68E-01 |
| | 1,000-1,200 | 2.81E-02 | 4.68E+03 | 7.90E-04 | 2.19E+07 | 5.25E-04 | 8.74E-02 |
| 3 | 200-400 | 1.19E+02 | 8.94E+05 | 1.13E+04 | 5.53E+11 | 1.32E+00 | 9.89E+00 |
| | 400-600 | 5.79E-01 | 5.46E+03 | 3.35E-01 | 2.98E+07 | 6.53E-03 | 6.16E-02 |
| | 600-800 | 6.63E-02 | 4.15E+03 | 4.40E-03 | 1.72E+07 | 7.29E-04 | 4.55E-02 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 5.75E+01 | 6.41E+05 | 2.30E+03 | 2.06E+11 | 4.65E-01 | 5.18E+00 |
| | 400-600 | 2.49E+00 | 3.22E+04 | 4.52E+00 | 5.70E+08 | 3.41E-02 | 4.41E-01 |
| | 600-800 | 9.46E-01 | 2.33E+04 | 8.95E-01 | 5.41E+08 | 1.36E-02 | 3.35E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 1.16E+00 | 2.93E+04 | 7.47E-01 | 6.76E+08 | 2.73E-02 | 6.91E-01 |
| | 400-600 | 1.23E+01 | 2.19E+05 | 8.76E+01 | 1.73E+10 | 2.90E-01 | 5.15E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 3.97E+02 | 3.54E+06 | 2.56E+04 | 3.40E+12 | 1.53E+00 | 1.36E+01 |
| | 400-600 | 1.22E+02 | 1.94E+06 | 3.76E+03 | 1.33E+12 | 7.14E-01 | 1.14E+01 |
| | 600-800 | 1.18E+00 | 5.39E+04 | 1.06E+00 | 1.56E+09 | 1.28E-02 | 5.87E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **1.50E+03** | **1.21E+07** | **4.60E+05** | **1.00E+13** | **4.48E-01** | **3.78E+00** |

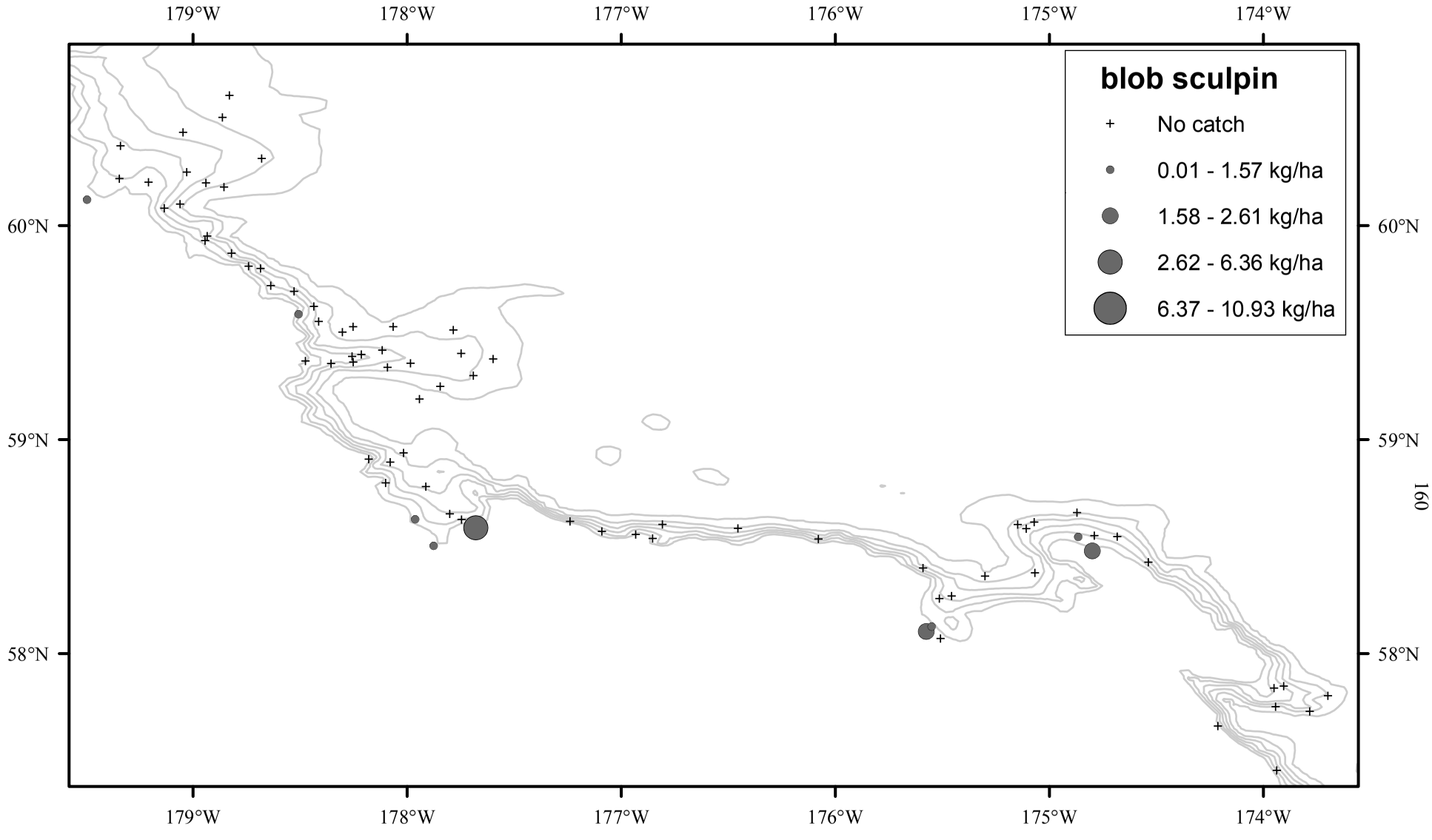


**Figure 50.** - - Distribution and relative abundance of blob sculpin from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

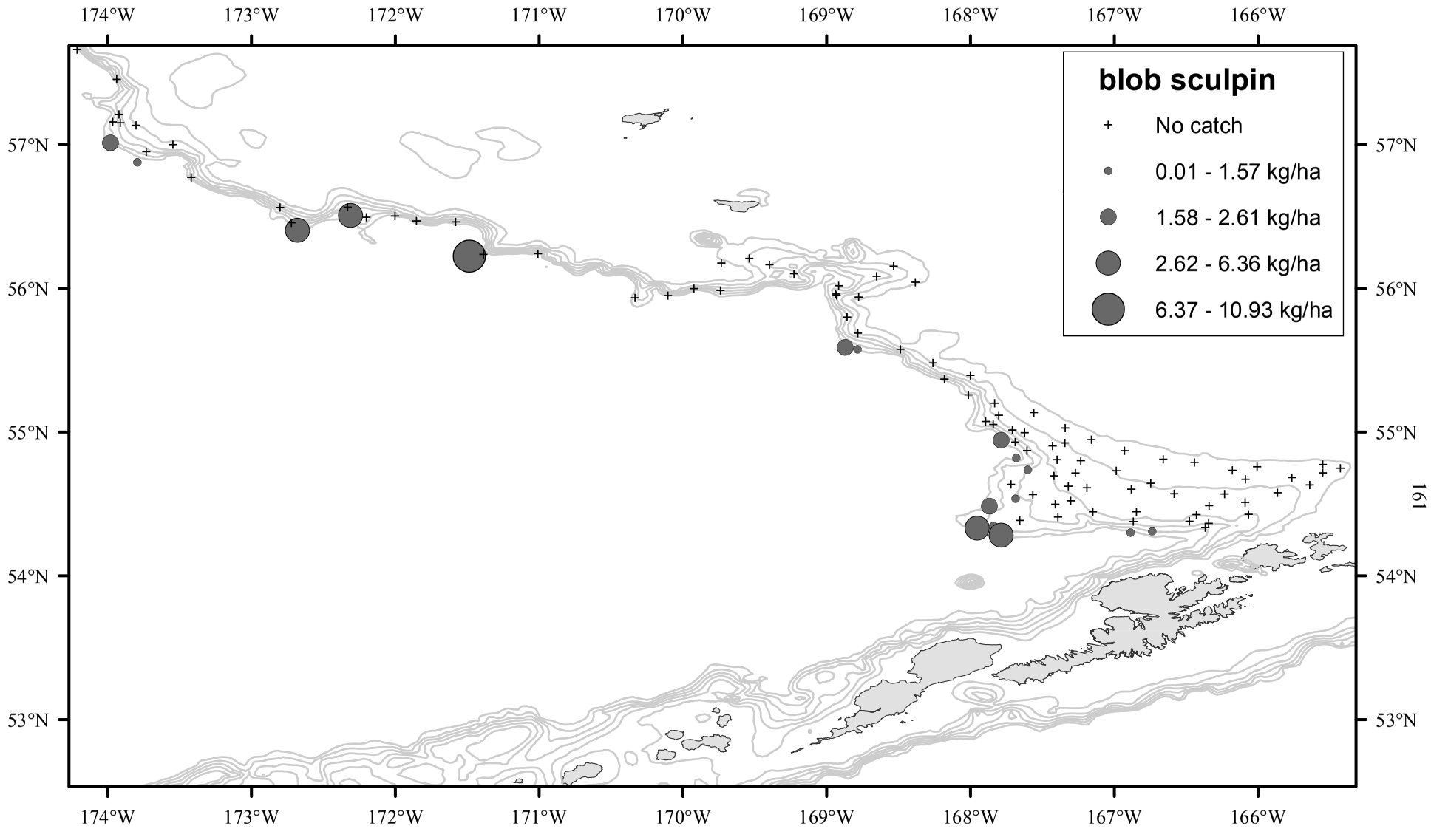


**Figure 50.** - - Continued.

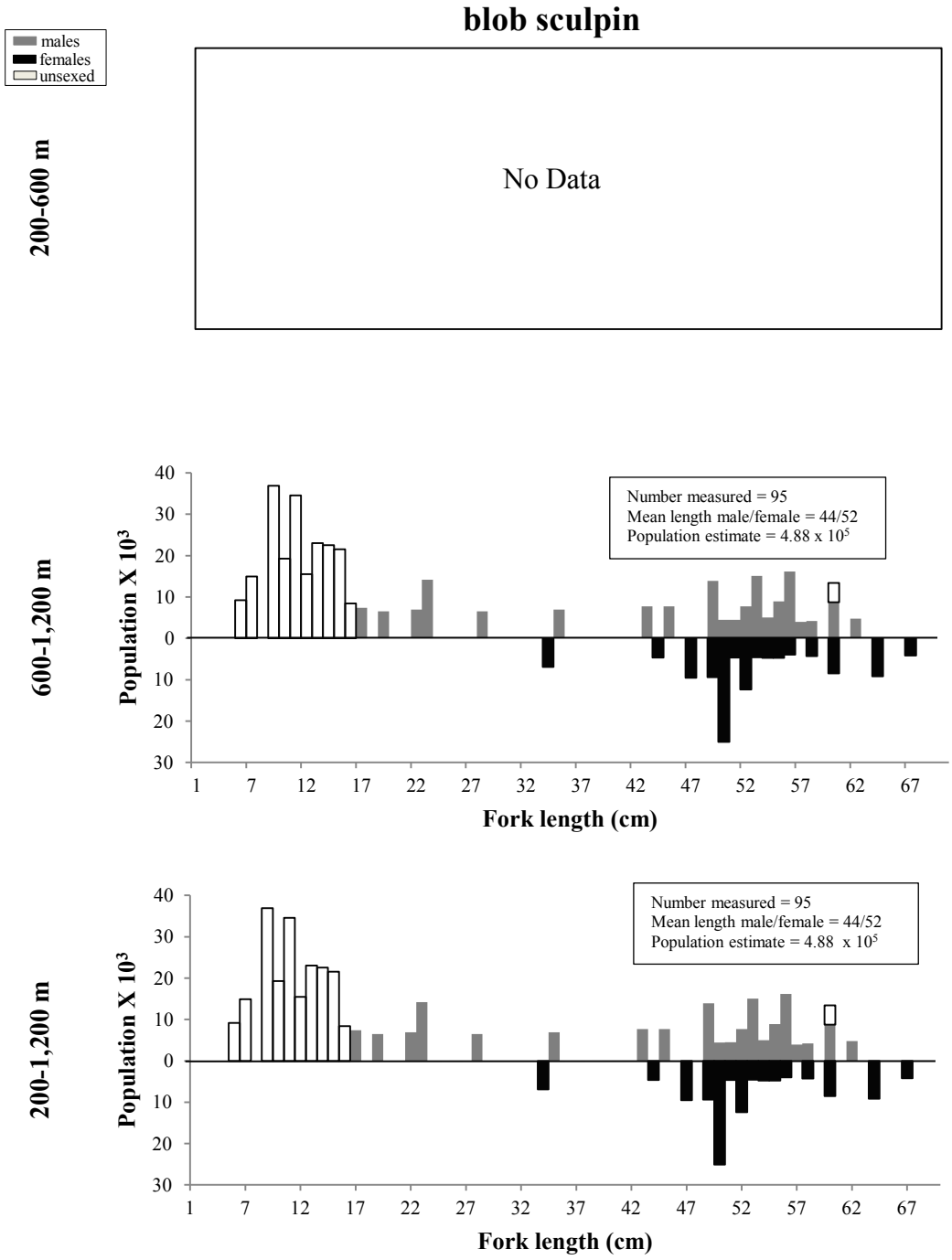


**Figure 51.** - - Size composition of the estimated blob sculpin population from the 2012 EBSS survey for all subareas by depth.

**Table 33. - -** Abundance estimates by subarea and depth stratum for blob sculpin (*Psychrolutes phrictus* ) from the 2012 EBSS survey.

***Psychrolutes phrictus*** **blob sculpin**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 2.78E+00 | 5.14E+04 | 2.19E+00 | 5.59E+08 | 2.05E-02 | 3.80E-01 |
| | 1,000-1,200 | 2.80E+02 | 1.04E+05 | 6.15E+03 | 1.62E+08 | 2.53E+00 | 9.42E-01 |
| 2 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 1.89E-02 | 4.73E+03 | 3.58E-04 | 2.24E+07 | 3.43E-04 | 8.56E-02 |
| | 1,000-1,200 | 3.17E+01 | 2.81E+04 | 1.00E+03 | 7.90E+08 | 5.91E-01 | 5.25E-01 |
| 3 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 3.25E+02 | 9.26E+04 | 2.98E+04 | 1.71E+09 | 4.44E+00 | 1.26E+00 |
| | 1,000-1,200 | 1.34E+02 | 3.27E+04 | 1.04E+04 | 5.04E+08 | 1.98E+00 | 4.85E-01 |
| 4 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 4.03E+01 | 5.26E+04 | 9.19E+02 | 6.92E+08 | 5.69E-01 | 7.43E-01 |
| | 1,000-1,200 | 8.25E+01 | 5.96E+04 | 1.73E+03 | 1.93E+09 | 1.25E+00 | 8.99E-01 |
| 5 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | 1.19E+02 | 5.16E+04 | 7.41E+03 | 1.02E+09 | 2.09E+00 | 9.04E-01 |
| 6 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 1.60E-01 | 5.73E+03 | 2.57E-02 | 3.28E+07 | 2.49E-03 | 8.88E-02 |
| | 1,000-1,200 | 1.42E+01 | 5.05E+03 | 2.03E+02 | 2.55E+07 | 2.87E-01 | 1.02E-01 |
| **1-6** | **200-1,200** | **1.03E+03** | **4.88E+05** | **5.76E+04** | **7.45E+09** | **2.93E-01** | **1.35E-01** |

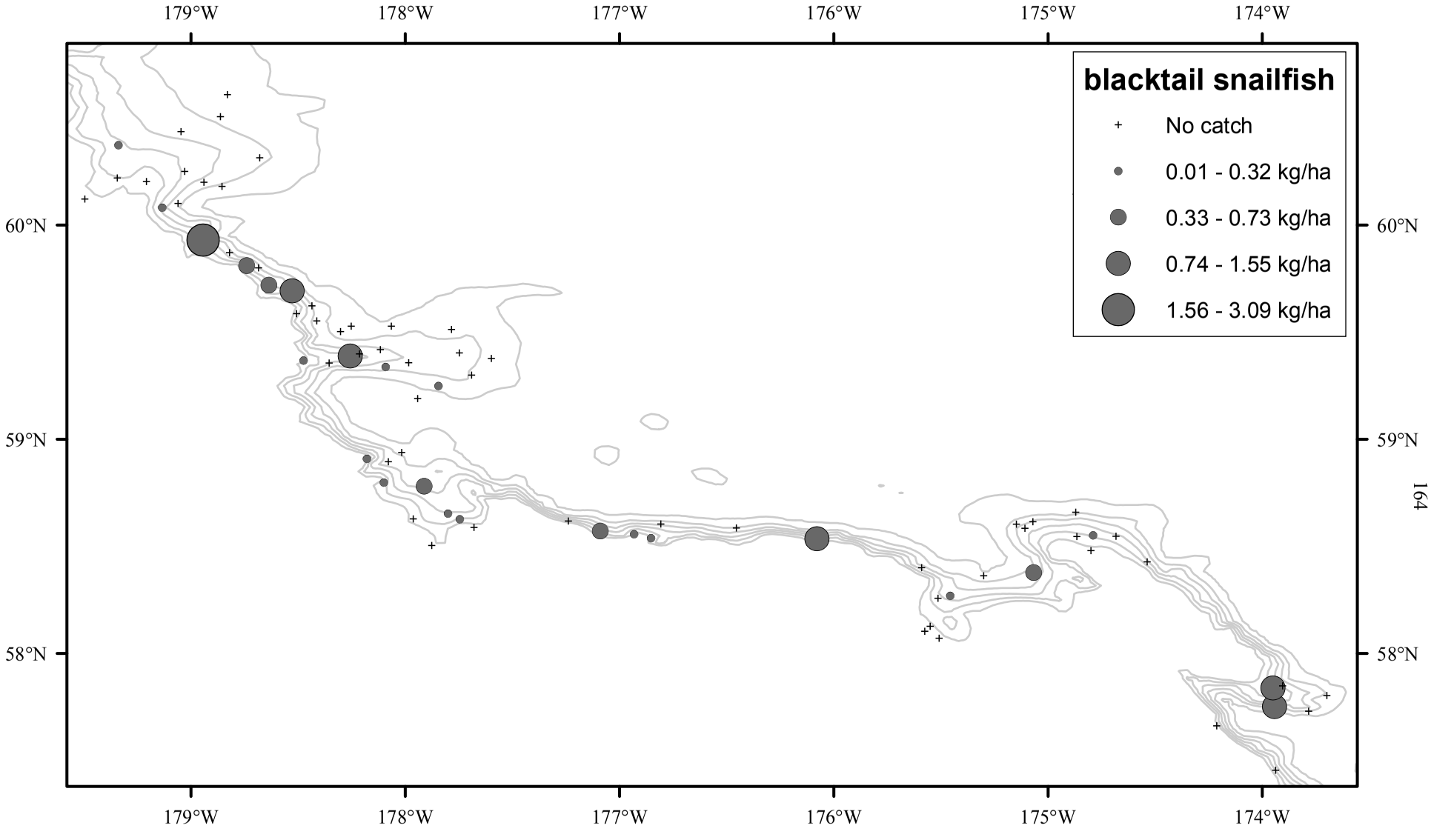


**Figure 52.** - - Distribution and relative abundance of blacktail snailfish from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

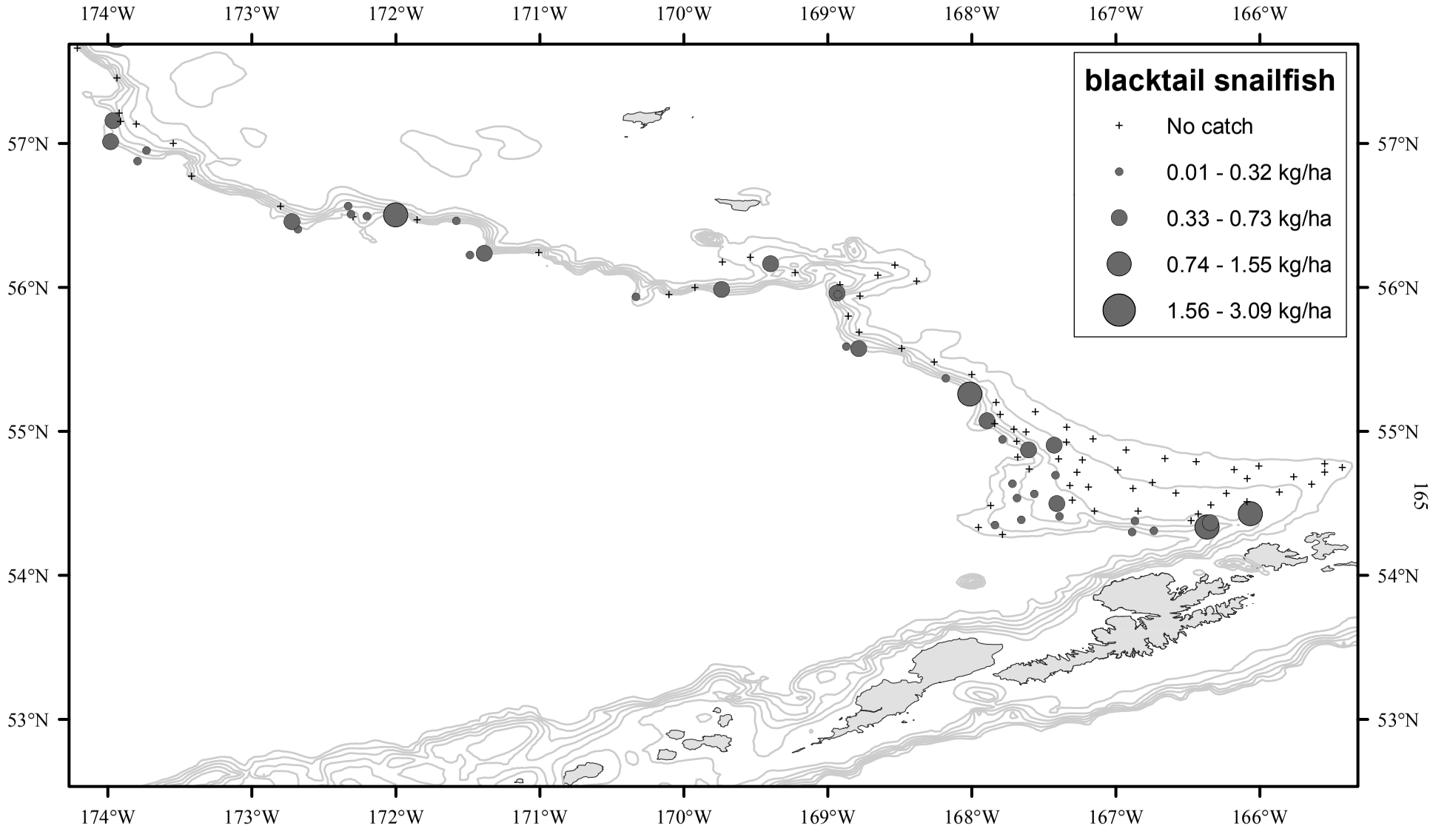


**Figure 52.** - - Continued.

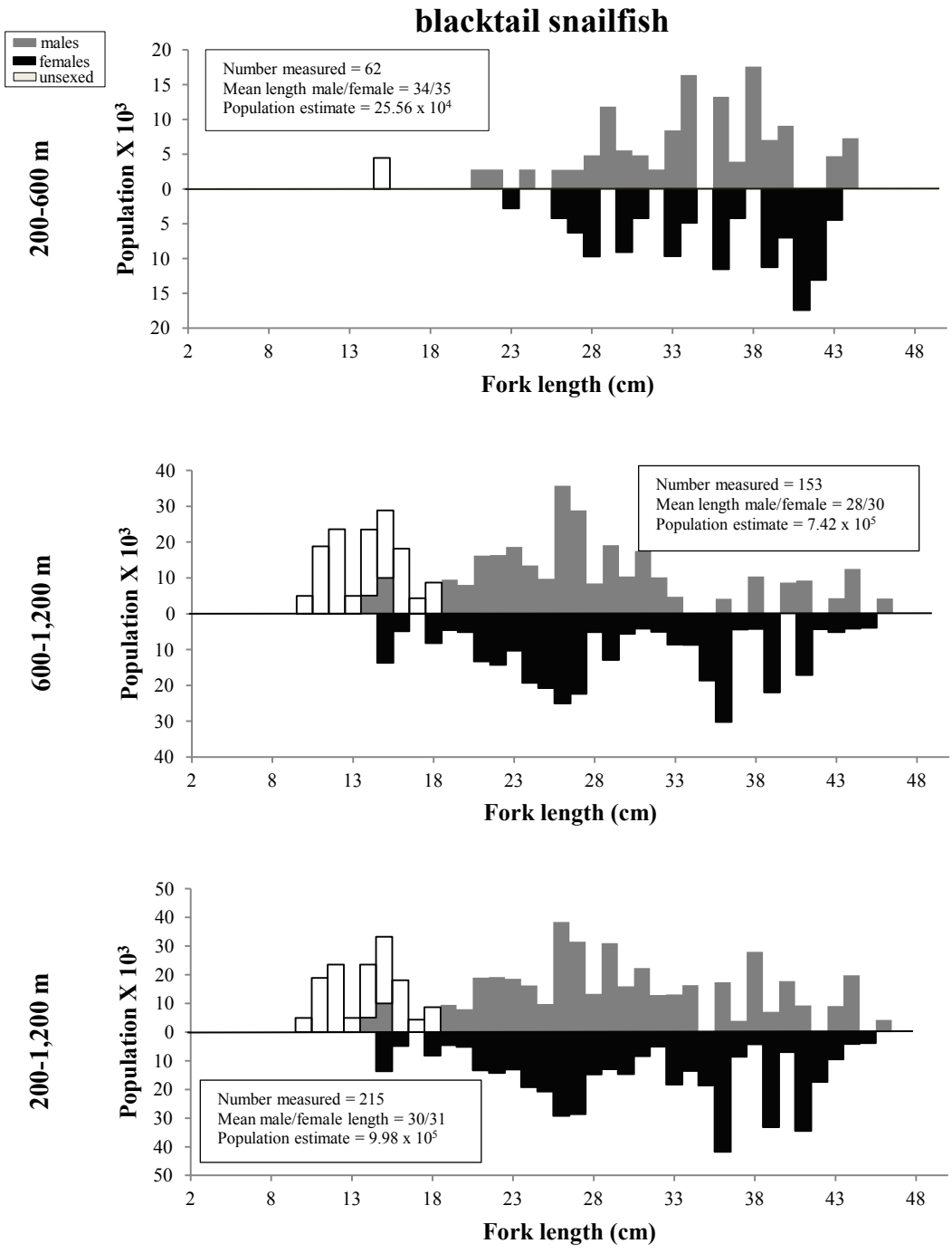


**Figure 53.** - - Size composition of the estimated blacktail snailfish population from the 2012 EBSS survey for all subareas by depth.

**Table 34. - -** Abundance estimates by subarea and depth stratum for blacktail snailfish (*Careproctus melanurus* ) from the 2012 EBSS survey.

***Careproctus melanurus*** **blacktail snailfish**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | | | | | | |
| | 400-600 | 3.30E+01 | 2.68E+04 | 3.57E+02 | 2.17E+08 | 8.13E-02 | 6.59E-02 |
| | 600-800 | 6.51E+01 | 9.22E+04 | 3.02E+02 | 9.34E+08 | 3.74E-01 | 5.29E-01 |
| | 800-1,000 | 2.61E+01 | 1.23E+05 | 2.32E+02 | 3.55E+09 | 1.93E-01 | 9.10E-01 |
| | 1,000-1,200 | 1.19E+00 | 2.32E+04 | 6.34E-01 | 2.38E+08 | 1.08E-02 | 2.10E-01 |
| 2 | 200-400 | | | | | | |
| | 400-600 | 6.63E+00 | 4.51E+03 | 4.39E+01 | 2.03E+07 | 9.40E-02 | 6.40E-02 |
| | 600-800 | 7.85E+00 | 1.67E+04 | 5.88E+01 | 7.67E+07 | 1.33E-01 | 2.82E-01 |
| | 800-1,000 | 2.10E+01 | 9.22E+04 | 2.70E+01 | 2.45E+09 | 3.80E-01 | 1.67E+00 |
| | 1,000-1,200 | 2.15E-01 | 9.37E+03 | 4.64E-02 | 8.78E+07 | 4.02E-03 | 1.75E-01 |
| 3 | 200-400 | | | | | | |
| | 400-600 | 1.89E+01 | 3.46E+04 | 2.54E+02 | 7.97E+08 | 2.13E-01 | 3.90E-01 |
| | 600-800 | 2.92E+01 | 6.45E+04 | 1.18E+02 | 2.59E+08 | 3.20E-01 | 7.09E-01 |
| | 800-1,000 | 7.73E+00 | 2.77E+04 | 3.44E+01 | 2.58E+08 | 1.06E-01 | 3.79E-01 |
| | 1,000-1,200 | 5.28E+00 | 1.29E+04 | 1.38E+01 | 1.87E+07 | 7.81E-02 | 1.91E-01 |
| 4 | 200-400 | | | | | | |
| | 400-600 | 8.02E+00 | 1.23E+04 | 6.15E+01 | 6.36E+07 | 1.10E-01 | 1.68E-01 |
| | 600-800 | 2.12E+01 | 3.06E+04 | 3.55E+02 | 3.93E+08 | 3.05E-01 | 4.41E-01 |
| | 800-1,000 | 3.65E+01 | 6.26E+04 | 1.33E+03 | 3.92E+09 | 5.15E-01 | 8.85E-01 |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | | | | | | |
| | 400-600 | 2.56E+01 | 5.73E+04 | 1.20E+02 | 4.38E+08 | 6.01E-01 | 1.35E+00 |
| | 600-800 | 4.70E+00 | 3.81E+04 | 1.11E+00 | 2.49E+07 | 1.09E-01 | 8.82E-01 |
| | 800-1,000 | 1.69E+00 | 2.51E+04 | 2.67E-01 | 6.45E+07 | 3.07E-02 | 4.54E-01 |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | | | | | | |
| | 400-600 | 7.87E+01 | 1.20E+05 | 2.32E+03 | 5.79E+09 | 4.62E-01 | 7.05E-01 |
| | 600-800 | 2.80E+01 | 1.24E+05 | 3.57E+02 | 7.83E+09 | 3.05E-01 | 1.35E+00 |
| | 800-1,000 | 8.37E-01 | 4.10E+03 | 7.00E-01 | 1.68E+07 | 1.30E-02 | 6.36E-02 |
| | 1,000-1,200 | 1.20E+00 | 5.55E+03 | 1.44E+00 | 3.08E+07 | 2.42E-02 | 1.12E-01 |
| **1-6** | **200-1,200** | **4.29E+02** | **1.01E+06** | **5.99E+03** | **2.75E+10** | **1.37E-01** | **3.19E-01** |

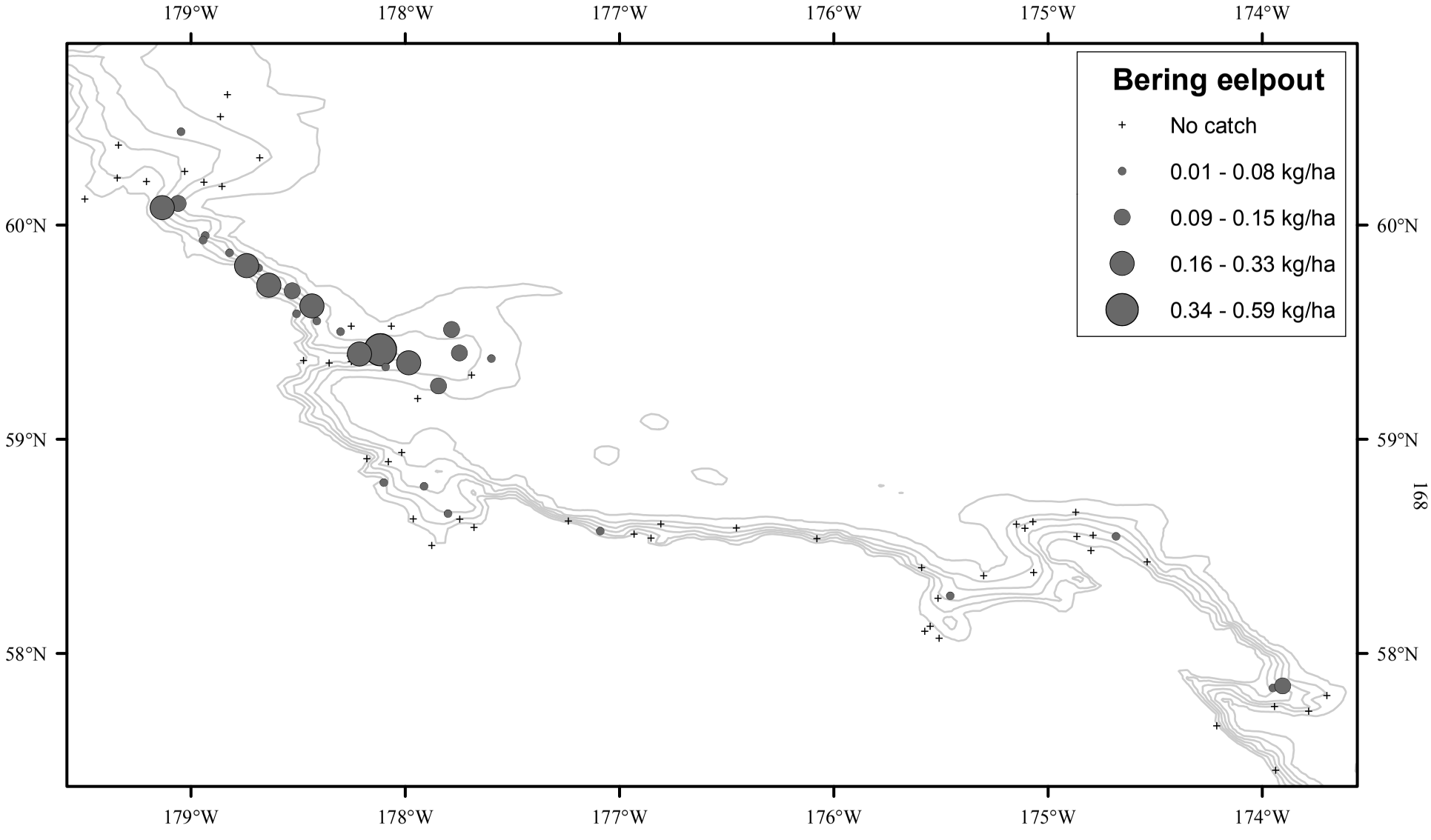


**Figure 54.** - - Distribution and relative abundance of Bering eelpout from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

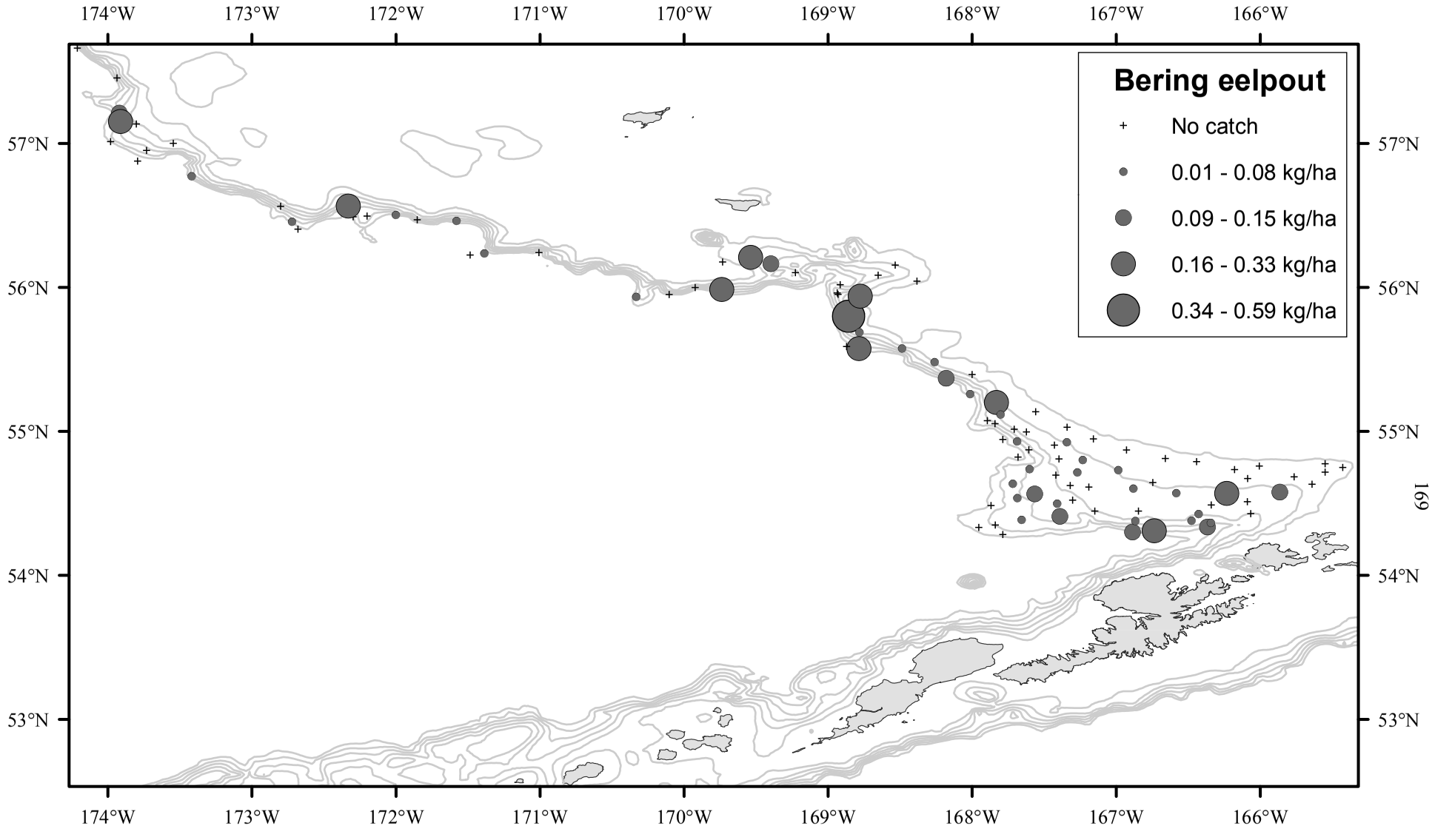


**Figure 54.** - - Continued.

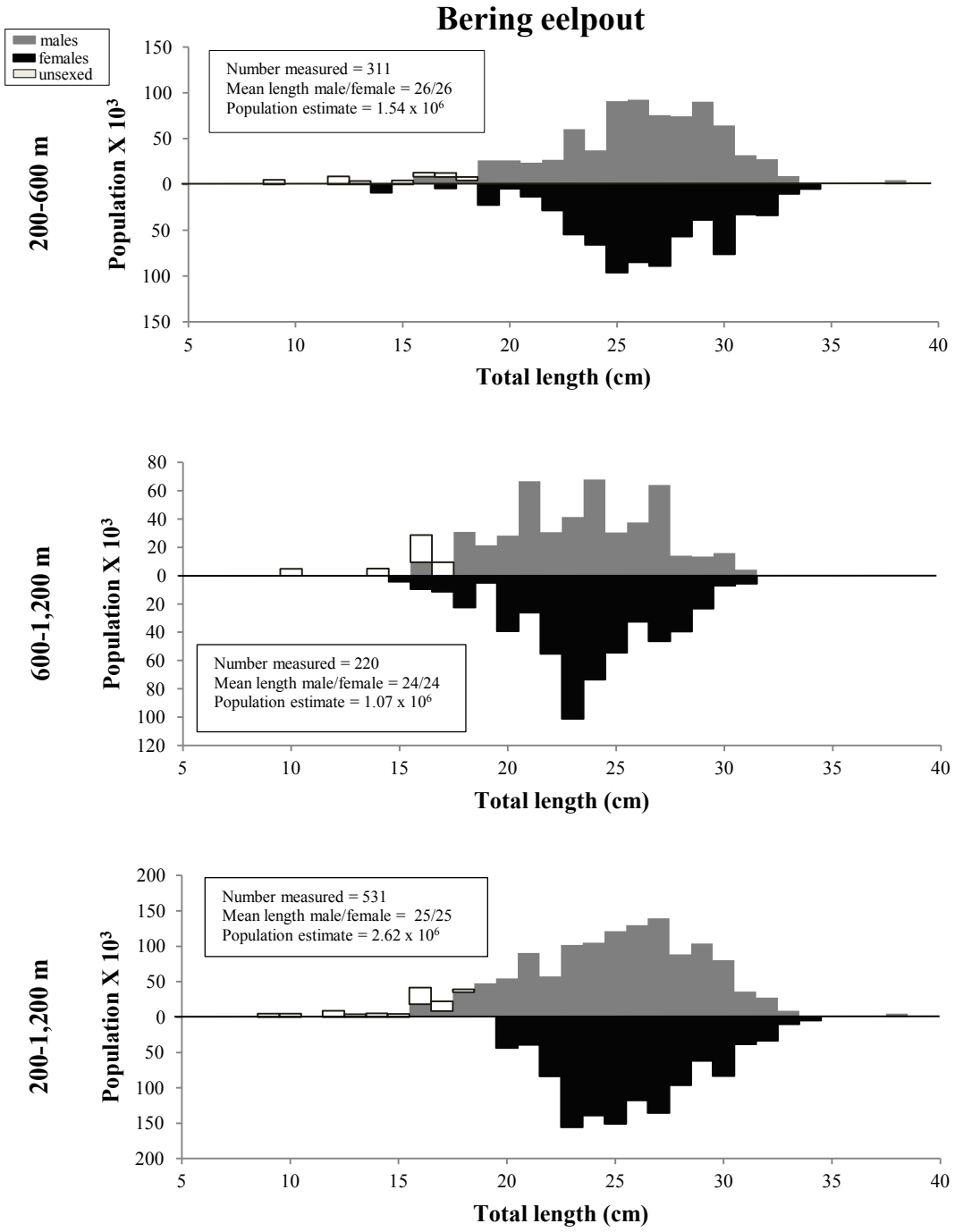


**Figure 55.** - - Size composition of the estimated Bering eelpout population from the 2012 EBSS survey for all subareas by depth.

**Table 35. - -** Abundance estimates by subarea and depth stratum for Bering eelpout (*Lycodes beringi* ) from the 2012 EBSS survey.

***Lycodes beringi*** **Bering eelpout**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 7.00E+00 | 1.06E+05 | 2.19E+01 | 5.84E+09 | 1.74E-02 | 2.65E-01 |
| | 400-600 | 1.30E+01 | 2.64E+05 | 3.25E+01 | 1.09E+10 | 3.20E-02 | 6.50E-01 |
| | 600-800 | 7.21E+00 | 1.67E+05 | 5.75E+00 | 2.22E+09 | 4.14E-02 | 9.58E-01 |
| | 800-1,000 | 1.05E+01 | 3.15E+05 | 2.93E+01 | 2.56E+10 | 7.73E-02 | 2.33E+00 |
| | 1,000-1,200 | 2.53E+00 | 6.86E+04 | 6.39E+00 | 4.70E+09 | 2.28E-02 | 6.19E-01 |
| 2 | 200-400 | 5.74E+00 | 7.58E+04 | 3.07E+01 | 4.92E+09 | 4.96E-02 | 6.55E-01 |
| | 400-600 | 2.03E+01 | 3.80E+05 | 7.41E+01 | 3.18E+10 | 2.88E-01 | 5.38E+00 |
| | 600-800 | 2.26E+00 | 4.07E+04 | 5.12E+00 | 1.65E+09 | 3.83E-02 | 6.88E-01 |
| | 800-1,000 | 4.05E+00 | 1.05E+05 | 1.02E+01 | 8.09E+09 | 7.32E-02 | 1.90E+00 |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | | | | | | |
| | 400-600 | 8.57E+00 | 1.34E+05 | 1.36E+01 | 2.56E+09 | 9.67E-02 | 1.51E+00 |
| | 600-800 | 5.97E+00 | 1.46E+05 | 1.13E+01 | 7.07E+09 | 6.55E-02 | 1.60E+00 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | | | | | | |
| | 400-600 | 1.90E+00 | 2.50E+04 | 1.84E+00 | 3.96E+08 | 2.60E-02 | 3.43E-01 |
| | 600-800 | 1.25E+00 | 1.90E+04 | 9.53E-01 | 2.26E+08 | 1.80E-02 | 2.74E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | | | | | | |
| | 400-600 | 9.98E-01 | 1.76E+04 | 3.64E-01 | 1.05E+08 | 2.34E-02 | 4.14E-01 |
| | 600-800 | 5.20E-01 | 1.00E+04 | 6.79E-02 | 2.86E+07 | 1.21E-02 | 2.32E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 9.51E+00 | 1.32E+05 | 1.50E+01 | 3.03E+09 | 3.66E-02 | 5.08E-01 |
| | 400-600 | 2.57E+01 | 4.11E+05 | 3.79E+01 | 8.33E+09 | 1.50E-01 | 2.41E+00 |
| | 600-800 | 9.98E+00 | 1.84E+05 | 2.89E+01 | 1.04E+10 | 1.09E-01 | 2.00E+00 |
| | 800-1,000 | 1.05E+00 | 1.72E+04 | 1.11E+00 | 2.95E+08 | 1.63E-02 | 2.66E-01 |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **1.38E+02** | **2.62E+06** | **3.27E+02** | **1.28E+11** | **4.29E-02** | **8.04E-01** |

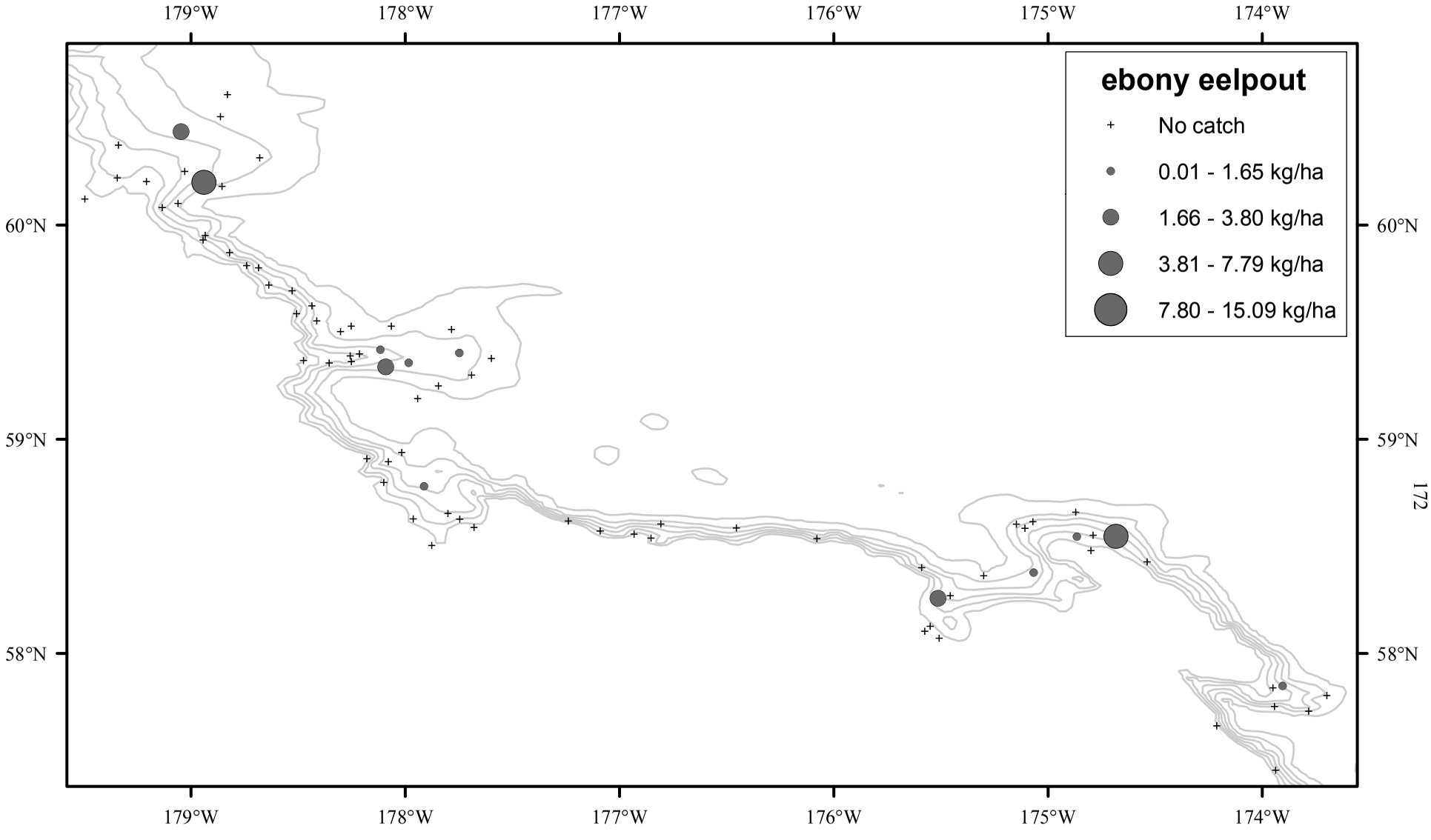


**Figure 56.** - - Distribution and realtive abundance of ebony eelpout from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

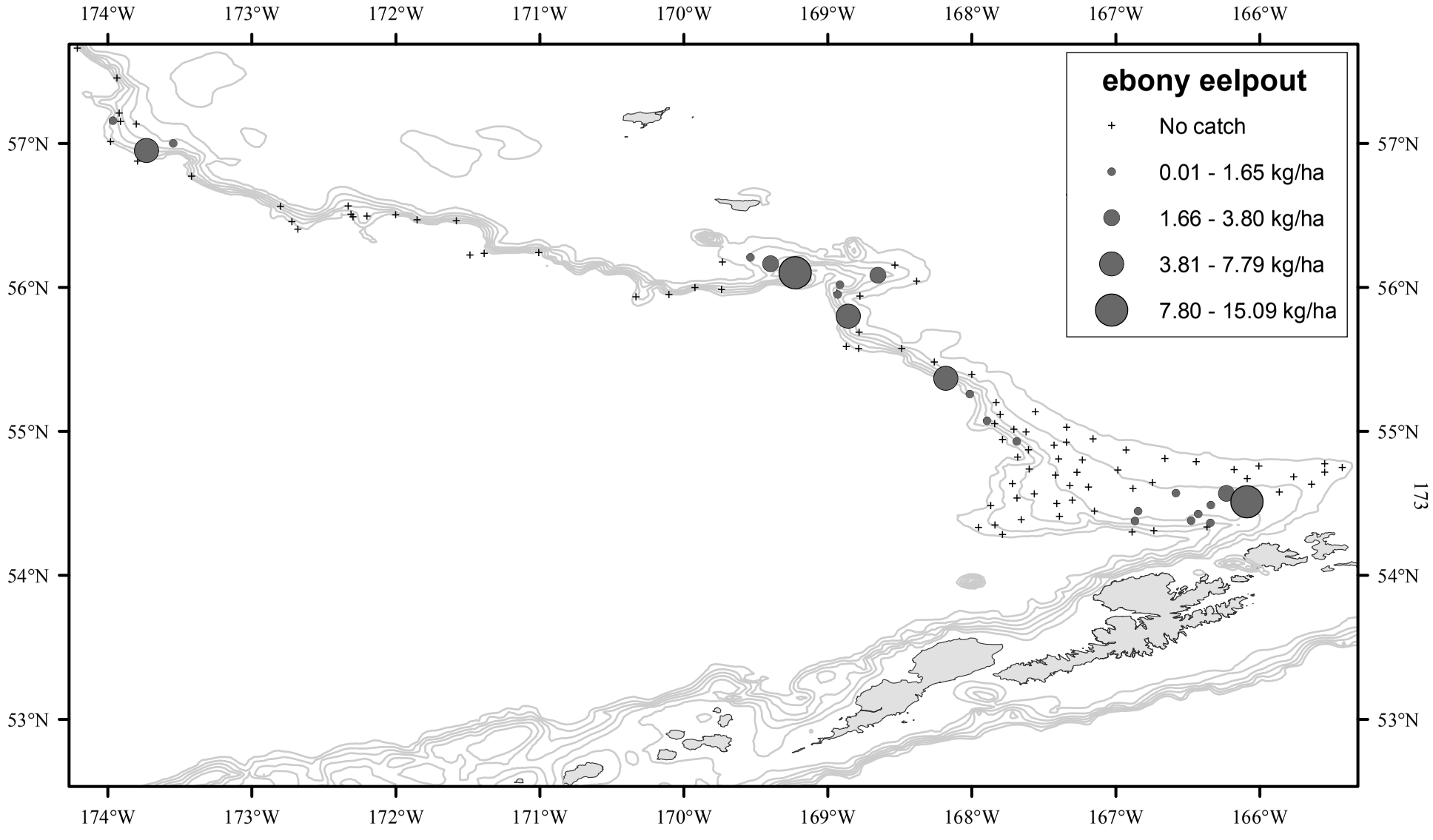


**Figure 56.** - - Continued.

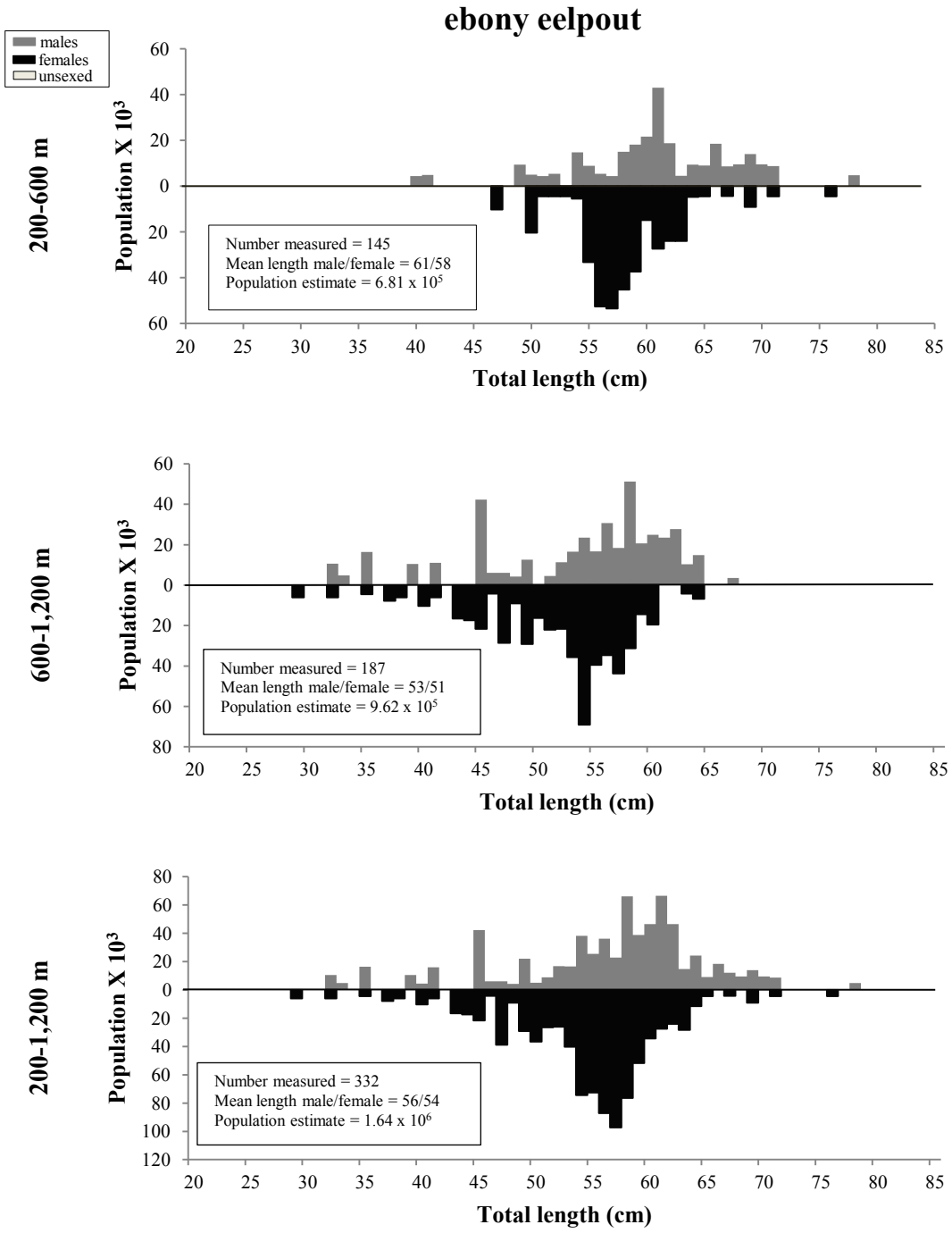


**Figure 57.** - - Size composition of the estimated ebony eelpout population from the 2012 EBSS survey for all subareas by depth.

**Table 36. - -** Abundance estimates by subarea and depth stratum for ebony eelpout (*Lycodes concolor* ) from the 2012 EBSS survey.

***Lycodes concolor*** **ebony eelpout**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| | **200-400** | | | | | | |
| | **400-600** | 4.86E+02 | 3.43E+05 | 7.83E+04 | 3.57E+10 | 1.20E+00 | 8.44E-01 |
| **1** | **600-800** | 5.36E+01 | 6.95E+04 | 5.39E+02 | 8.69E+08 | 3.08E-01 | 3.99E-01 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | 1.18E+02 | 1.07E+05 | 7.05E+03 | 4.37E+09 | 1.67E+00 | 1.52E+00 |
| **2** | **600-800** | 1.39E+02 | 1.67E+05 | 3.22E+03 | 5.51E+09 | 2.34E+00 | 2.82E+00 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | 2.06E+02 | 3.32E+05 | 2.99E+04 | 7.34E+10 | 3.84E+00 | 6.20E+00 |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **3** | **600-800** | 1.38E+02 | 1.91E+05 | 1.87E+04 | 3.43E+10 | 1.51E+00 | 2.09E+00 |
| | **800-1,000** | 6.50E+00 | 1.50E+04 | 4.23E+01 | 2.25E+08 | 8.88E-02 | 2.05E-01 |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | 2.68E+01 | 2.36E+04 | 4.46E+02 | 3.58E+08 | 3.67E-01 | 3.24E-01 |
| **4** | **600-800** | 1.18E+02 | 1.27E+05 | 5.49E+03 | 6.52E+09 | 1.71E+00 | 1.83E+00 |
| | **800-1,000** | 2.47E-01 | 6.51E+03 | 6.11E-02 | 4.23E+07 | 3.49E-03 | 9.19E-02 |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | 3.44E+00 | 3.14E+03 | 1.18E+01 | 9.83E+06 | 8.09E-02 | 7.36E-02 |
| **5** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | 2.08E+02 | 2.04E+05 | 1.48E+04 | 1.43E+10 | 1.22E+00 | 1.20E+00 |
| **6** | **600-800** | 4.70E+01 | 5.44E+04 | 2.21E+03 | 2.96E+09 | 5.12E-01 | 5.93E-01 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **1.55E+03** | **1.64E+06** | **1.61E+05** | **1.79E+11** | **4.81E-01** | **5.07E-01** |

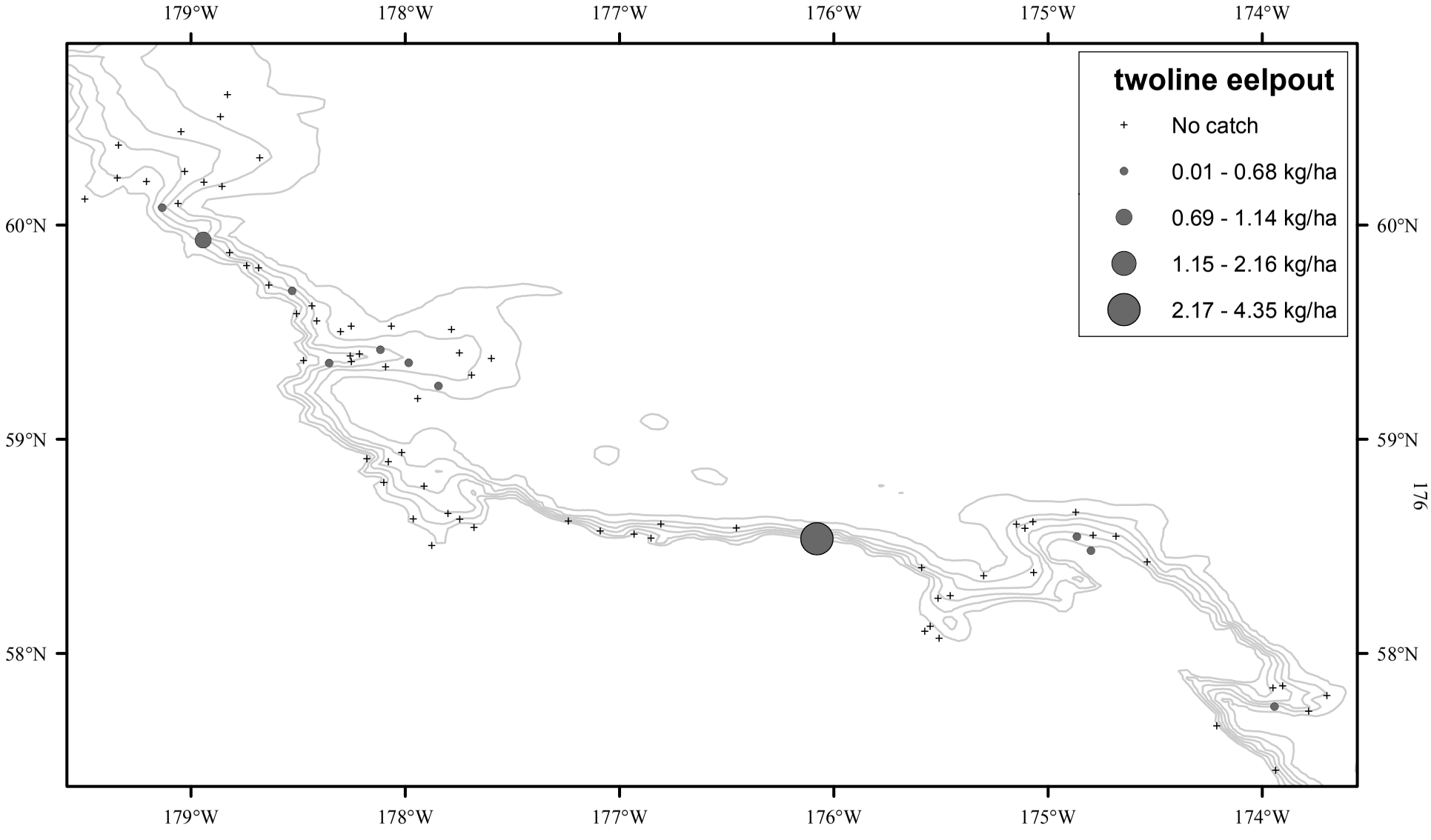


**Figure 58.** - - Distribution and realtive abundance of twoline eelpout from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

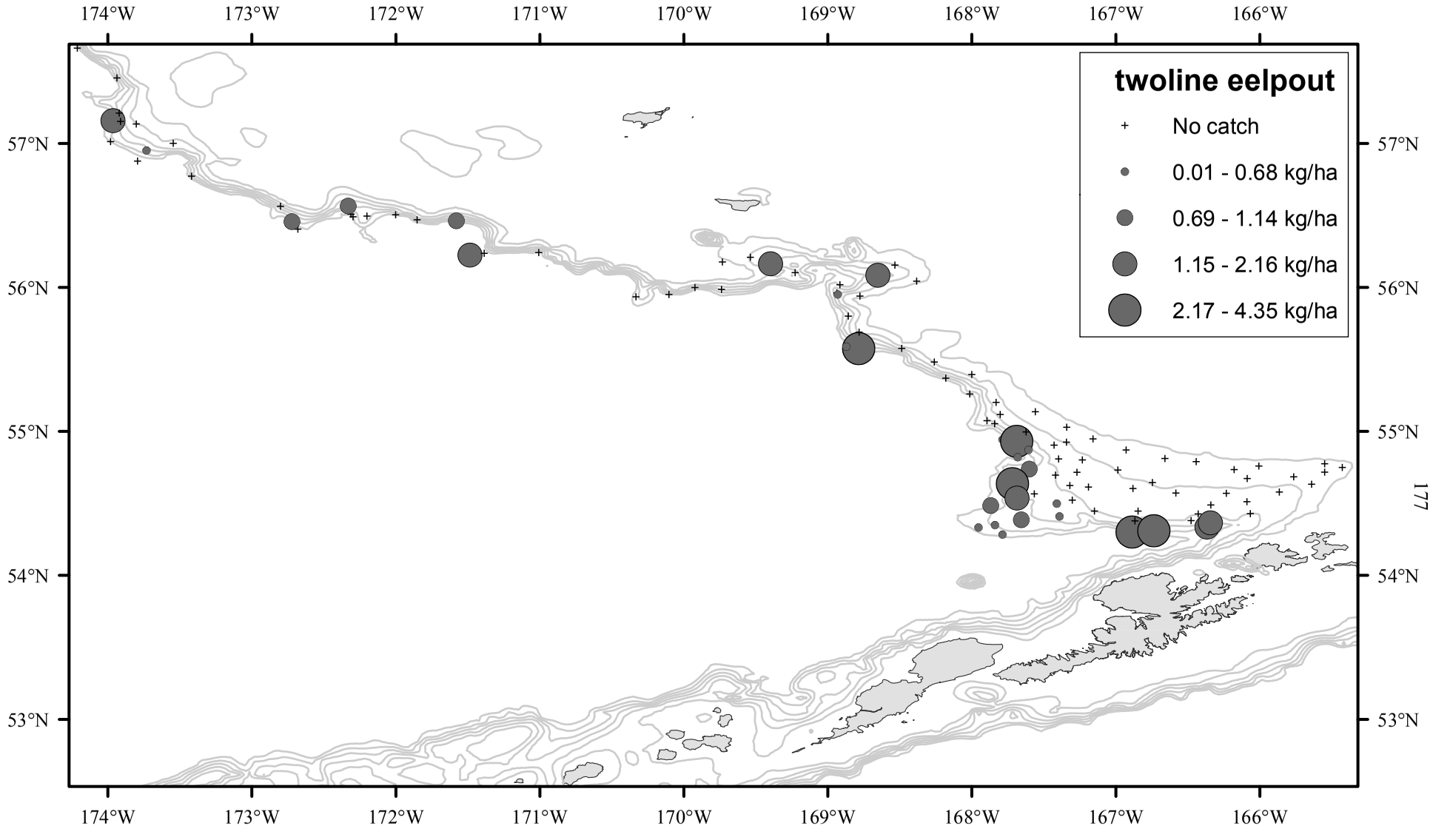


**Figure 58.** - - Continued.

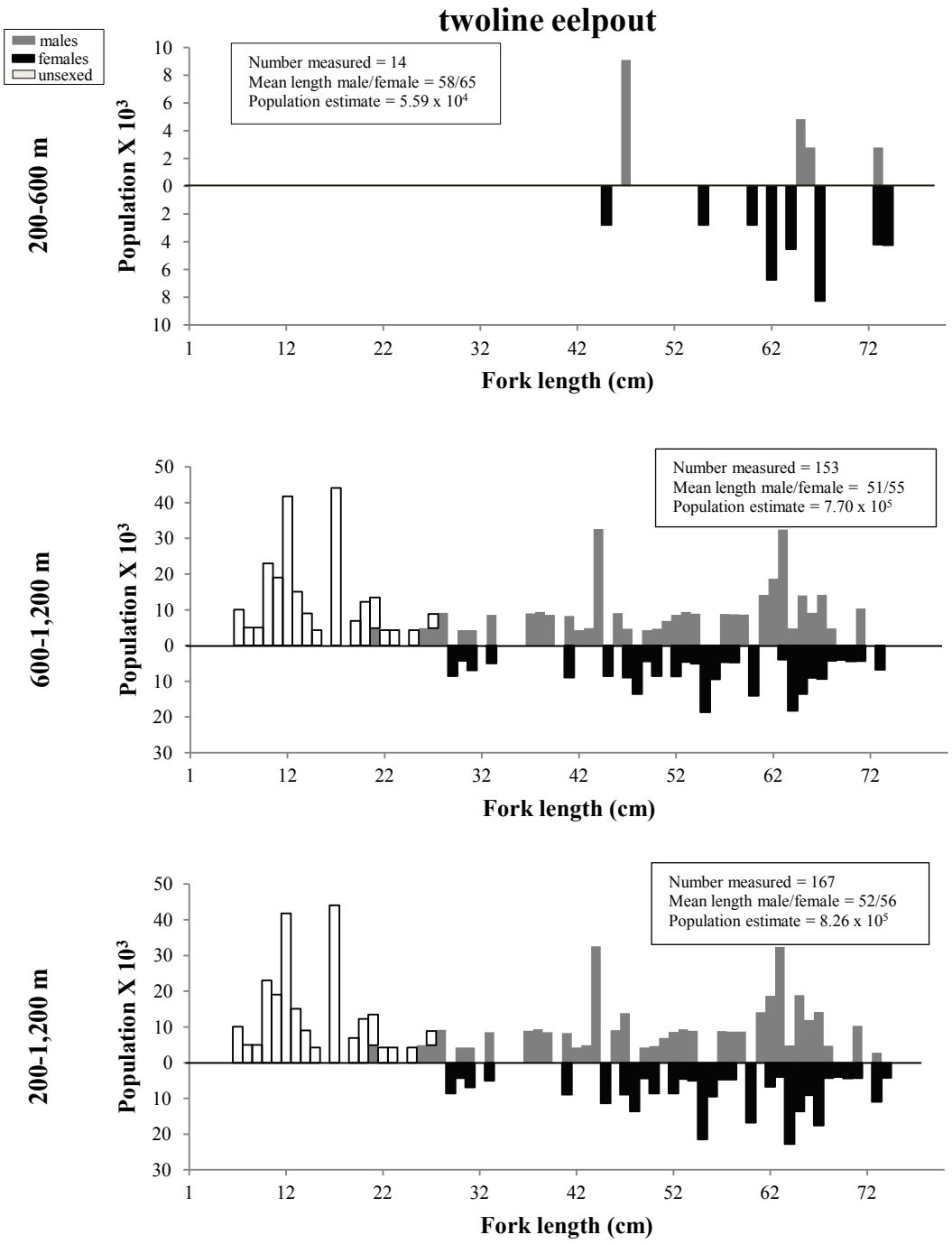


**Figure 59.** - - Size composition of the estimated twoline eelpout population from the 2012 EBSS survey for all subareas by depth.

**Table 37. - -** Abundance estimates by subarea and depth stratum for twoline eelpout (*Bothrocara brunneum* ) from the 2012 EBSS survey.

***Bothrocara brunneum*** **twoline eelpout**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **1** | **600-800** | 1.22E+02 | 5.87E+04 | 3.63E+03 | 9.23E+08 | 7.00E-01 | 3.37E-01 |
| | **800-1,000** | 2.02E+02 | 1.71E+05 | 1.80E+03 | 1.06E+09 | 1.49E+00 | 1.26E+00 |
| | **1,000-1,200** | 1.04E+02 | 3.06E+05 | 5.89E+03 | 2.08E+10 | 9.37E-01 | 2.76E+00 |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **2** | **600-800** | 6.41E+01 | 2.21E+04 | 2.33E+02 | 2.27E+07 | 1.08E+00 | 3.73E-01 |
| | **800-1,000** | 4.95E+01 | 4.26E+04 | 2.45E+03 | 1.81E+09 | 8.96E-01 | 7.71E-01 |
| | **1,000-1,200** | 9.48E+00 | 1.87E+04 | 8.99E+01 | 3.51E+08 | 1.77E-01 | 3.50E-01 |
| | **200-400** | | | | | | |
| | **400-600** | 1.39E+01 | 5.46E+03 | 1.92E+02 | 2.98E+07 | 1.57E-01 | 6.16E-02 |
| **3** | **600-800** | 6.78E+01 | 3.53E+04 | 4.83E+02 | 1.24E+08 | 7.45E-01 | 3.88E-01 |
| | **800-1,000** | 3.11E+01 | 1.42E+04 | 9.65E+02 | 2.03E+08 | 4.24E-01 | 1.95E-01 |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | | | | | | |
| **4** | **600-800** | | | | | | |
| | **800-1,000** | 3.59E+00 | 6.52E+04 | 1.14E+01 | 2.21E+09 | 5.08E-02 | 9.21E-01 |
| | **1,000-1,200** | 7.41E+00 | 2.77E+04 | 5.48E+01 | 7.66E+08 | 1.12E-01 | 4.18E-01 |
| | **200-400** | | | | | | |
| | **400-600** | 3.61E+01 | 1.96E+04 | 1.30E+03 | 3.82E+08 | 8.48E-01 | 4.59E-01 |
| **5** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | | | | | | |
| | **400-600** | 5.34E+01 | 3.09E+04 | 2.69E+02 | 1.01E+08 | 3.13E-01 | 1.81E-01 |
| **6** | **600-800** | | | | | | |
| | **800-1,000** | 3.49E-02 | 8.74E+03 | 1.22E-03 | 7.63E+07 | 5.42E-04 | 1.35E-01 |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **7.64E+02** | **8.26E+05** | **1.74E+04** | **2.88E+10** | **2.28E-01** | **2.36E-01** |

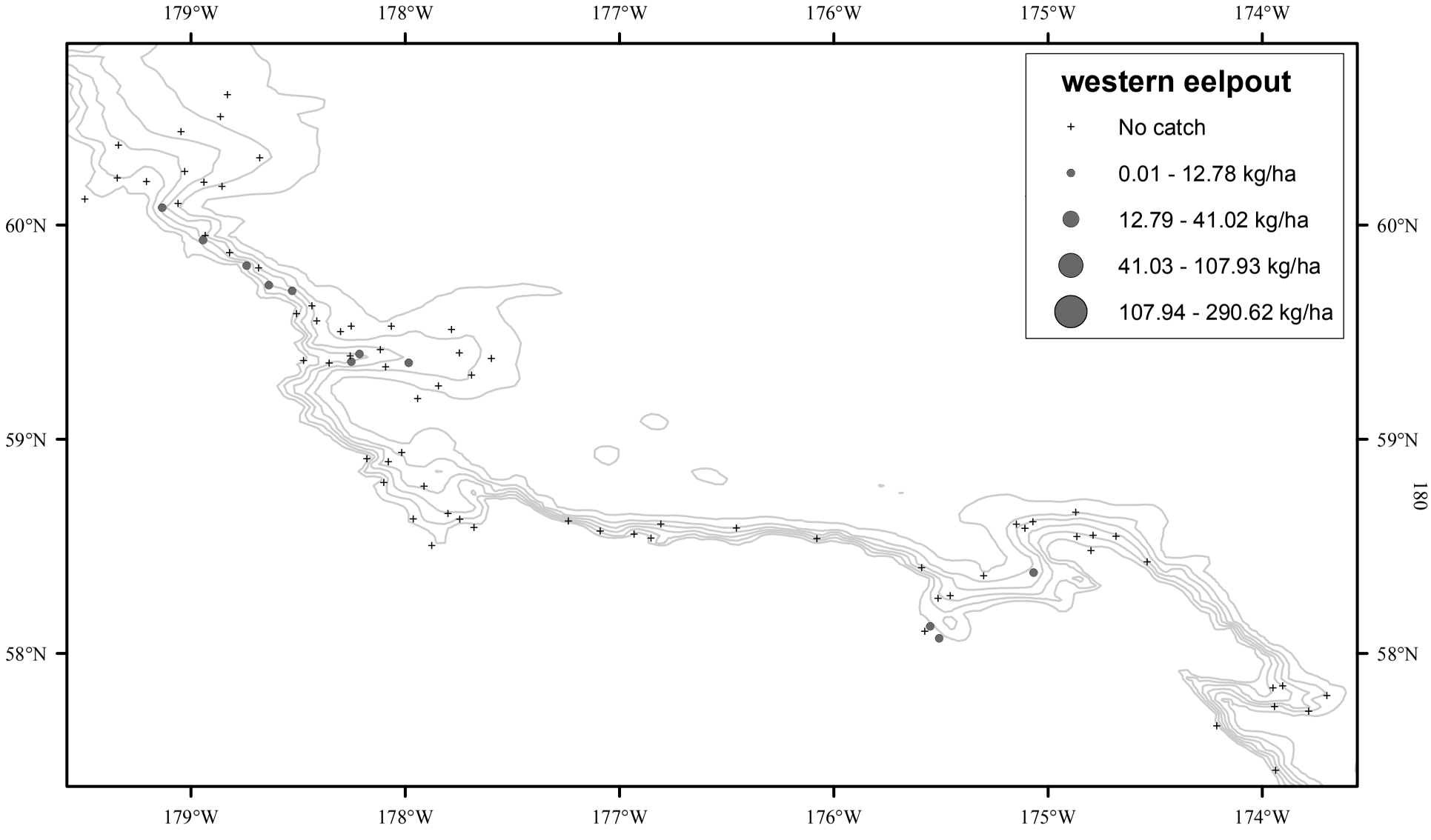


**Figure 60.** - - Distribution and relative abundance of western eelpout from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

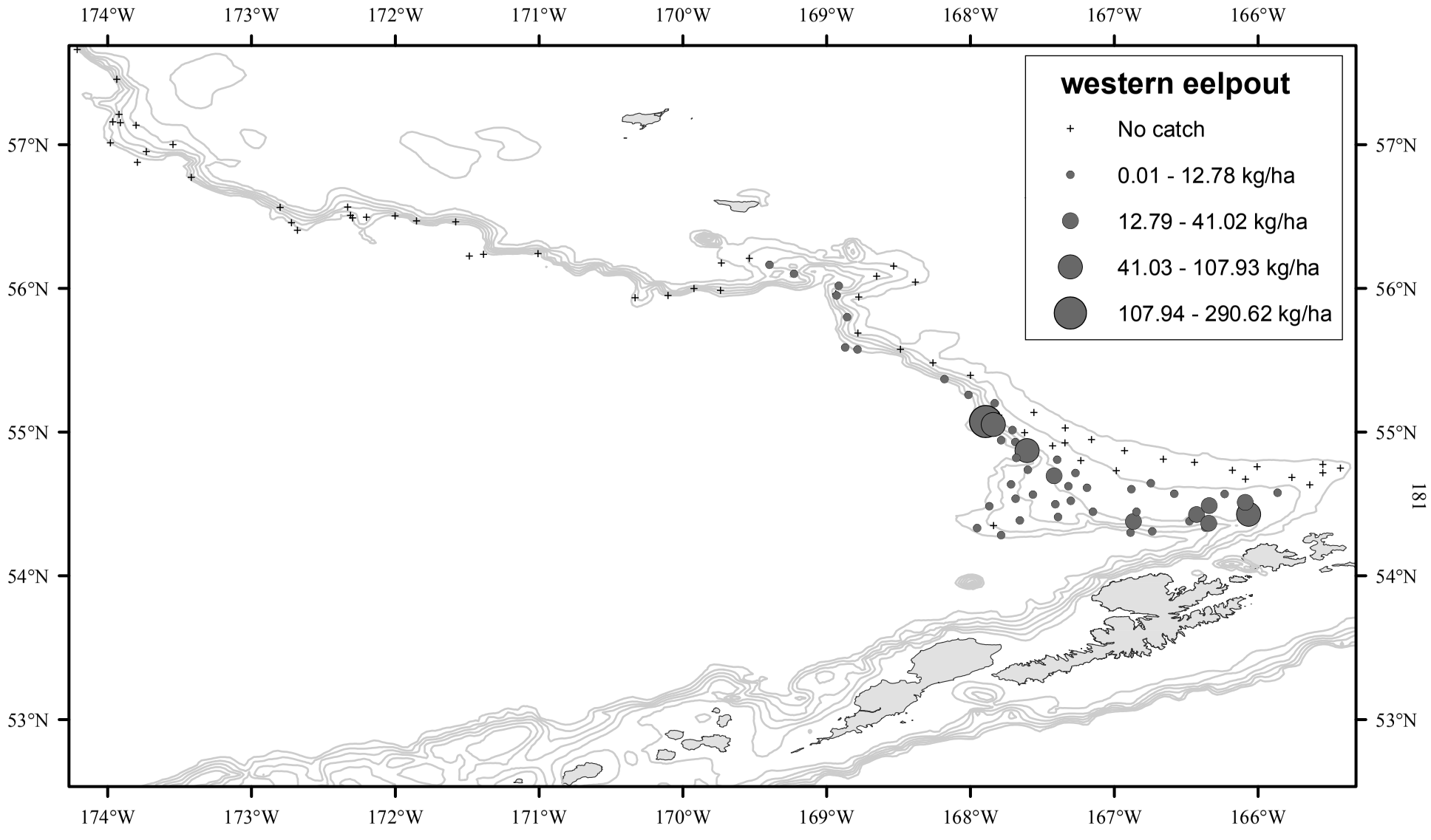


**Figure 60.** - - Continued.

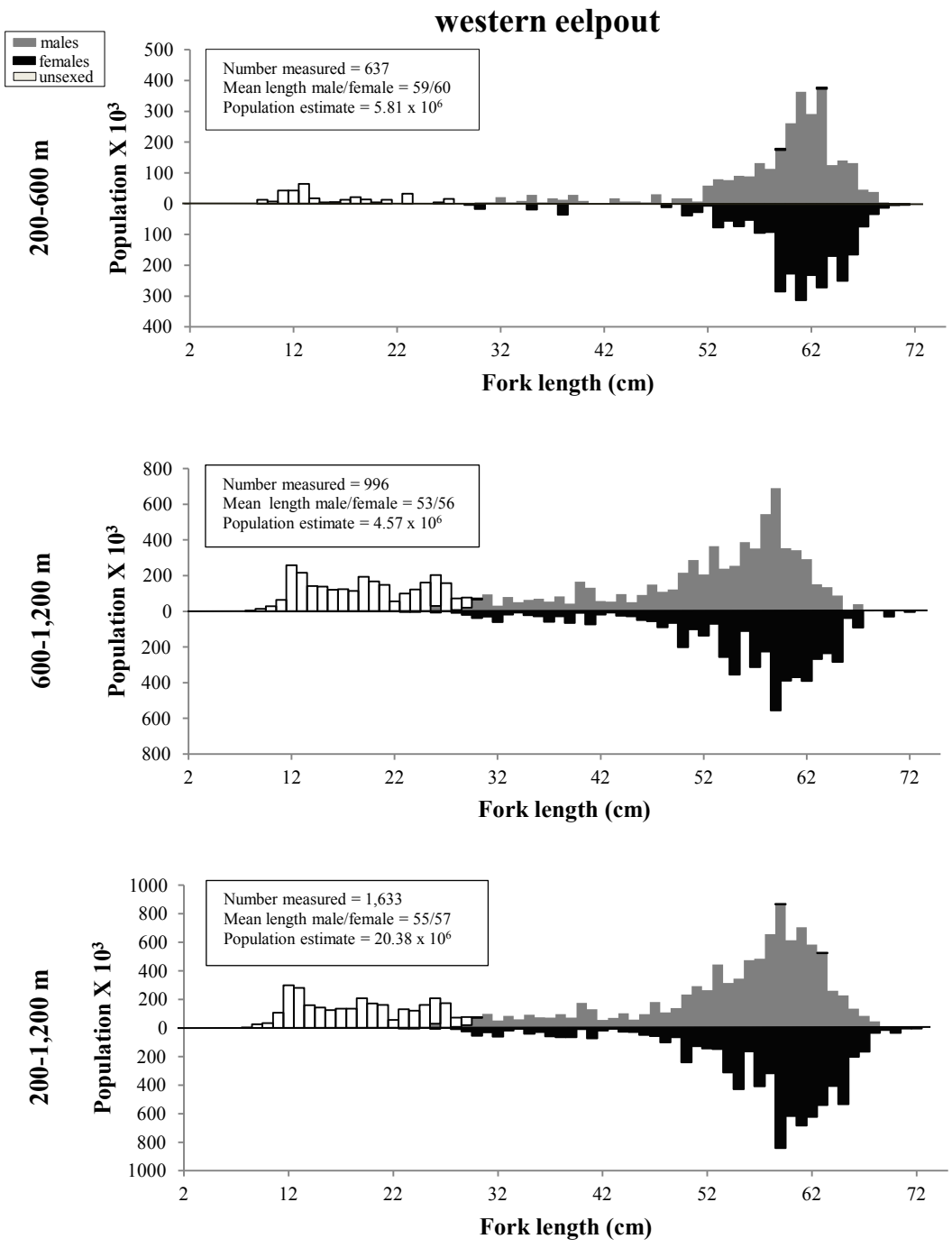


**Figure 61.** - - Size composition of the estimated western eelpout population from the 2012 EBSS survey for all subareas by depth.

**Table 38. - -** Abundance estimates by subarea and depth stratum for western eelpout (*Bothrocara zestum* ) from the 2012 EBSS survey.

***Bothrocara zestum*** **western eelpout**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 7.16E+00 | 9.81E+03 | 5.00E+01 | 4.58E+07 | 1.78E-02 | 2.45E-02 |
| | 400-600 | 5.42E+03 | 5.65E+06 | 2.67E+06 | 3.07E+12 | 1.33E+01 | 1.39E+01 |
| | 600-800 | 8.61E+03 | 1.19E+07 | 2.49E+07 | 3.45E+13 | 4.94E+01 | 6.82E+01 |
| | 800-1,000 | 2.19E+02 | 5.24E+05 | 2.00E+04 | 5.93E+10 | 1.62E+00 | 3.87E+00 |
| | 1,000-1,200 | 1.18E+02 | 9.24E+05 | 5.79E+03 | 4.38E+11 | 1.07E+00 | 8.34E+00 |
| 2 | 200-400 | | | | | | |
| | 400-600 | 6.41E+01 | 5.42E+04 | 4.11E+03 | 2.94E+09 | 9.09E-01 | 7.68E-01 |
| | 600-800 | 1.73E+01 | 6.41E+04 | 1.73E+02 | 2.50E+09 | 2.93E-01 | 1.08E+00 |
| | 800-1,000 | 5.08E+01 | 8.05E+04 | 2.58E+03 | 6.48E+09 | 9.20E-01 | 1.46E+00 |
| | 1,000-1,200 | 1.20E+02 | 1.07E+06 | 1.03E+04 | 7.92E+11 | 2.23E+00 | 2.00E+01 |
| 3 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | | | | | | |
| | 400-600 | 4.23E+00 | 3.91E+03 | 1.79E+01 | 1.53E+07 | 5.80E-02 | 5.35E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | 4.65E-01 | 6.65E+03 | 2.16E-01 | 4.42E+07 | 6.57E-03 | 9.39E-02 |
| | 1,000-1,200 | 2.53E-02 | 6.32E+03 | 6.39E-04 | 3.99E+07 | 3.82E-04 | 9.54E-02 |
| 5 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | | | | | | |
| | 400-600 | 5.29E+01 | 9.57E+04 | 1.47E+03 | 3.01E+09 | 3.10E-01 | 5.61E-01 |
| | 600-800 | 4.89E-02 | 1.29E+04 | 1.21E-03 | 6.72E+07 | 5.33E-04 | 1.40E-01 |
| | 800-1,000 | 3.86E-01 | 4.10E+03 | 1.49E-01 | 1.68E+07 | 5.98E-03 | 6.36E-02 |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **1.47E+04** | **2.04E+07** | **2.77E+07** | **3.88E+13** | **4.43E+00** | **6.13E+00** |

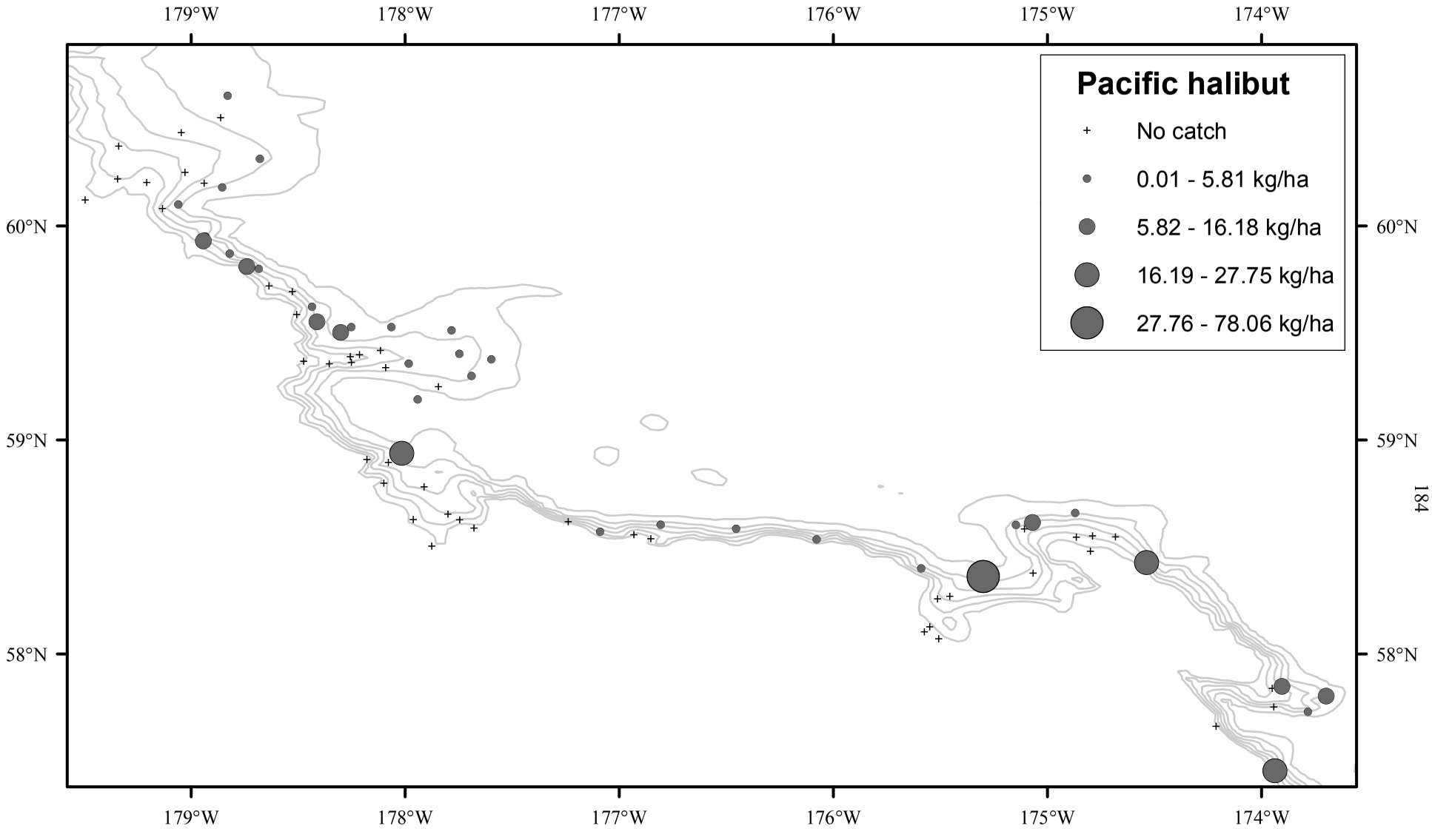


**Figure 62.** - - Distribution and relative abundance of Pacific halibut from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

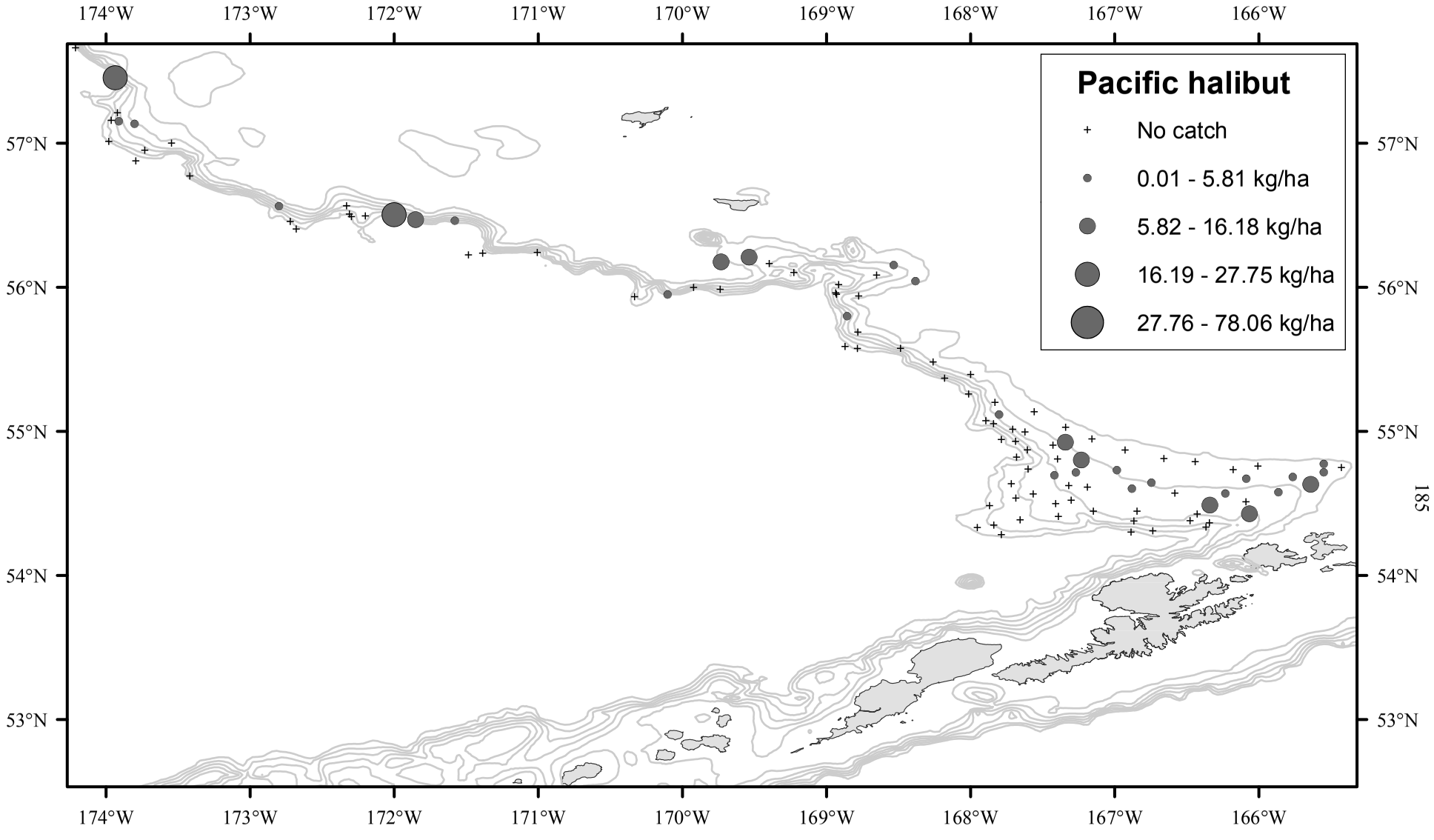


**Figure 62.** - - Continued.

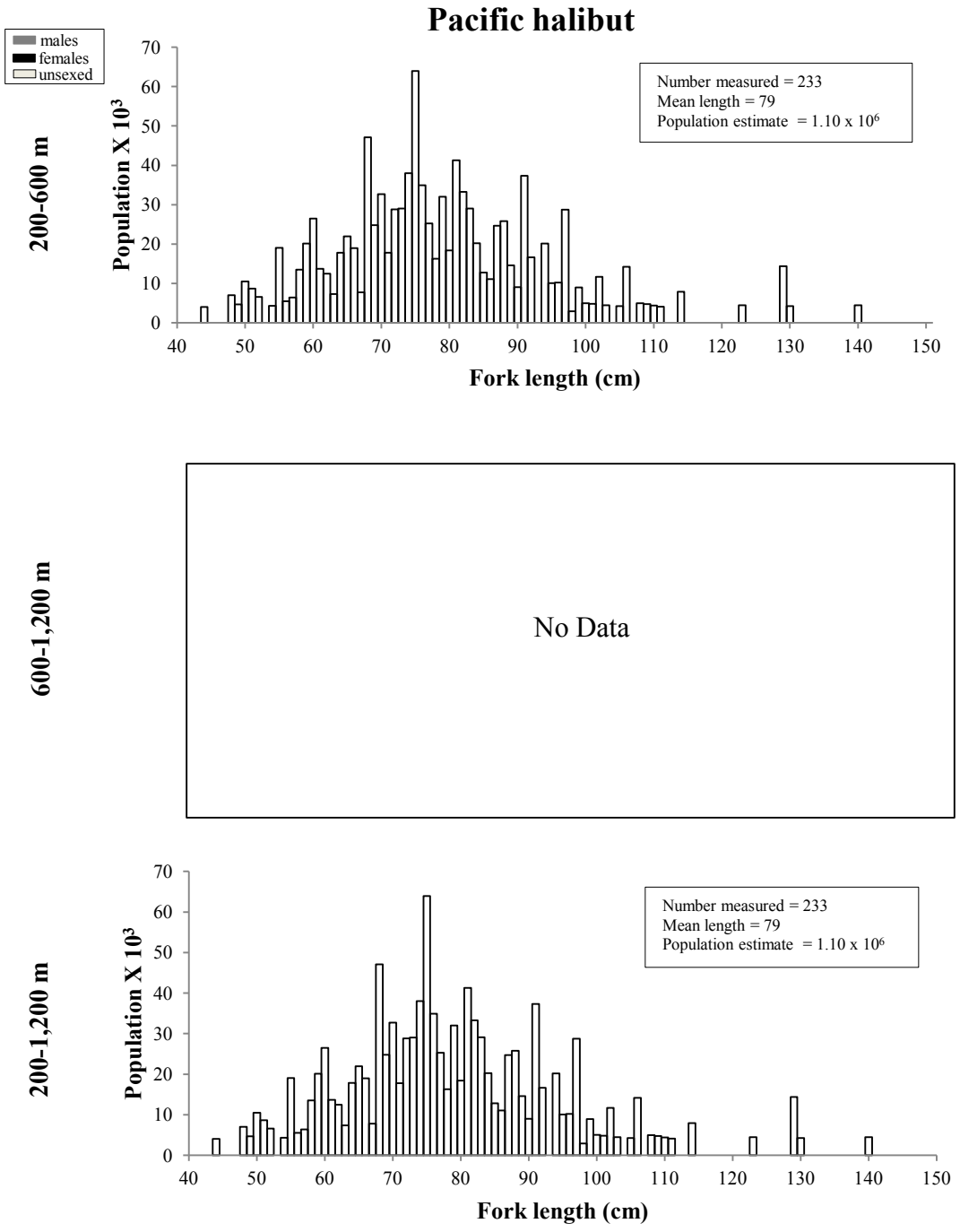


**Figure 63.** - - Size composition of the estimated Pacific halibut population from the 2012 EBSS survey for all subareas by depth.

**Table 39. - -** Abundance estimates by subarea and depth stratum for Pacific halibut (*Hippoglossus stenolepis* ) from the 2012 EBSS survey.

***Hippoglossus stenolepis*** **Pacific halibut**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 8.01E+02 | 1.12E+05 | 1.11E+05 | 2.19E+09 | 2.00E+00 | 2.80E-01 |
| | 400-600 | 7.79E+02 | 5.81E+04 | 1.13E+05 | 3.59E+08 | 1.92E+00 | 1.43E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 1.88E+02 | 2.55E+04 | 1.44E+04 | 2.14E+08 | 1.62E+00 | 2.20E-01 |
| | 400-600 | 2.76E+02 | 2.32E+04 | 1.25E+04 | 8.18E+07 | 3.91E+00 | 3.30E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 6.59E+02 | 7.27E+04 | 1.78E+05 | 6.14E+08 | 7.29E+00 | 8.05E-01 |
| | 400-600 | 5.74E+02 | 5.90E+04 | 2.25E+05 | 2.14E+09 | 6.48E+00 | 6.66E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 2.09E+03 | 3.57E+05 | 1.69E+06 | 3.94E+10 | 1.69E+01 | 2.88E+00 |
| | 400-600 | 3.60E+02 | 3.94E+04 | 3.09E+04 | 3.32E+08 | 4.93E+00 | 5.40E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 3.48E+02 | 6.40E+04 | 6.54E+04 | 1.14E+09 | 8.21E+00 | 1.51E+00 |
| | 400-600 | 6.71E+01 | 8.33E+03 | 2.38E+03 | 2.85E+07 | 1.58E+00 | 1.96E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 6.33E+02 | 1.70E+05 | 1.54E+04 | 5.29E+08 | 2.44E+00 | 6.54E-01 |
| | 400-600 | 5.36E+02 | 1.13E+05 | 4.75E+04 | 2.55E+09 | 3.15E+00 | 6.60E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **7.31E+03** | **1.10E+06** | **2.51E+06** | **4.96E+10** | **2.31E+00** | **3.52E-01** |

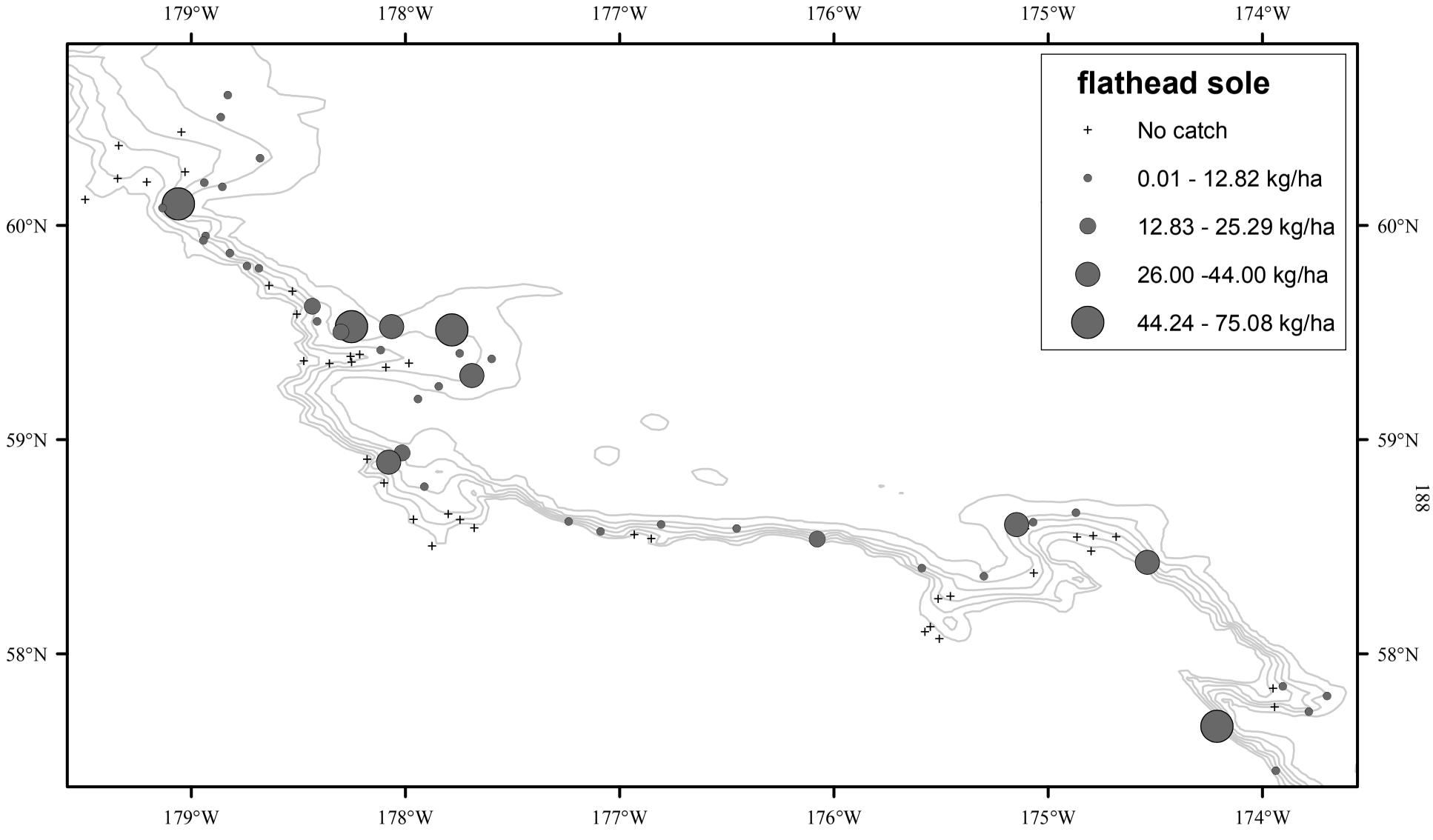




**Figure 64.** - - Distribution and relative abundance of flathead sole from the EBSS survey. Values are in ranges of CPUE (kg/ha).

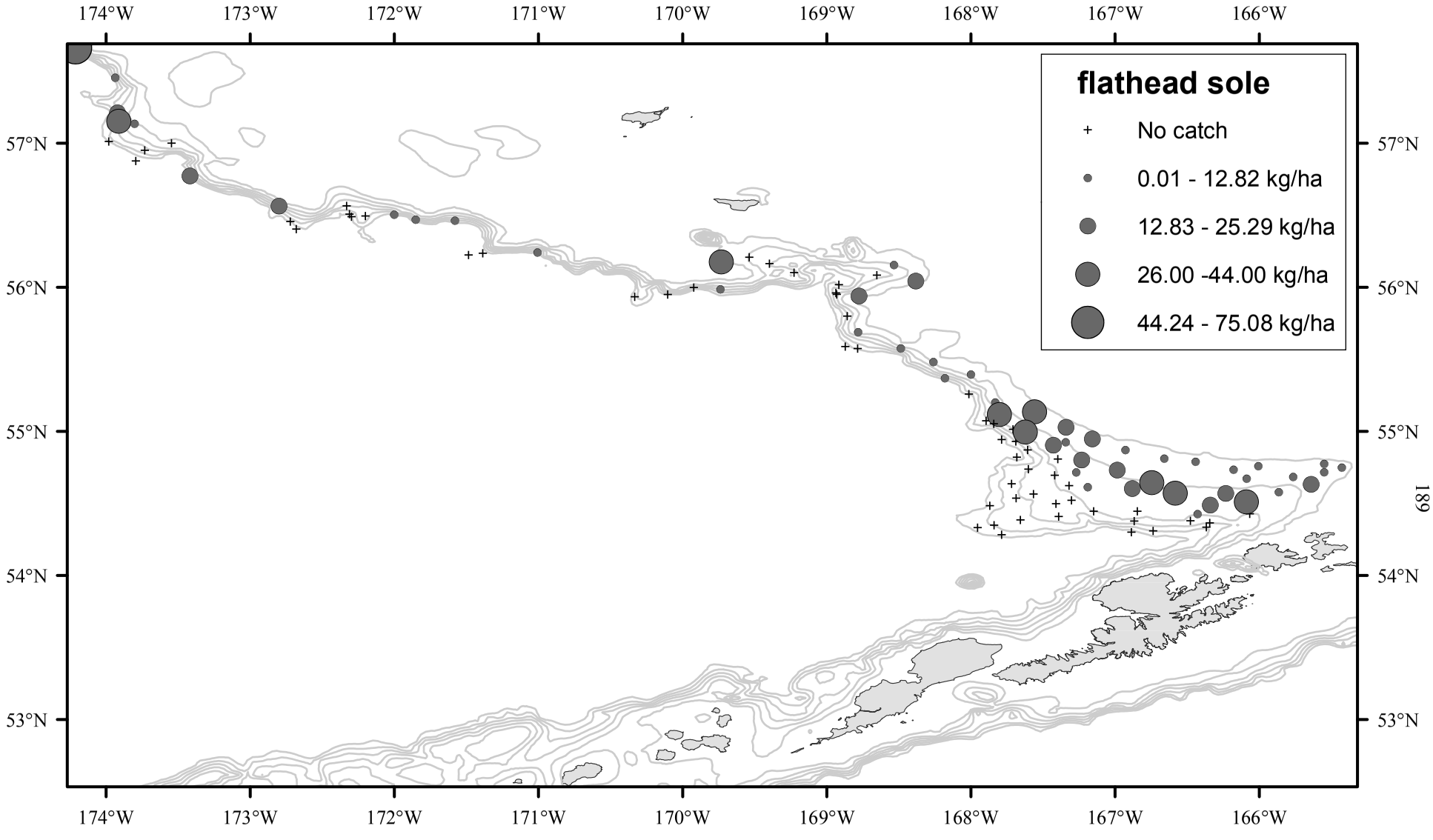


**Figure 64.** - - Continued.

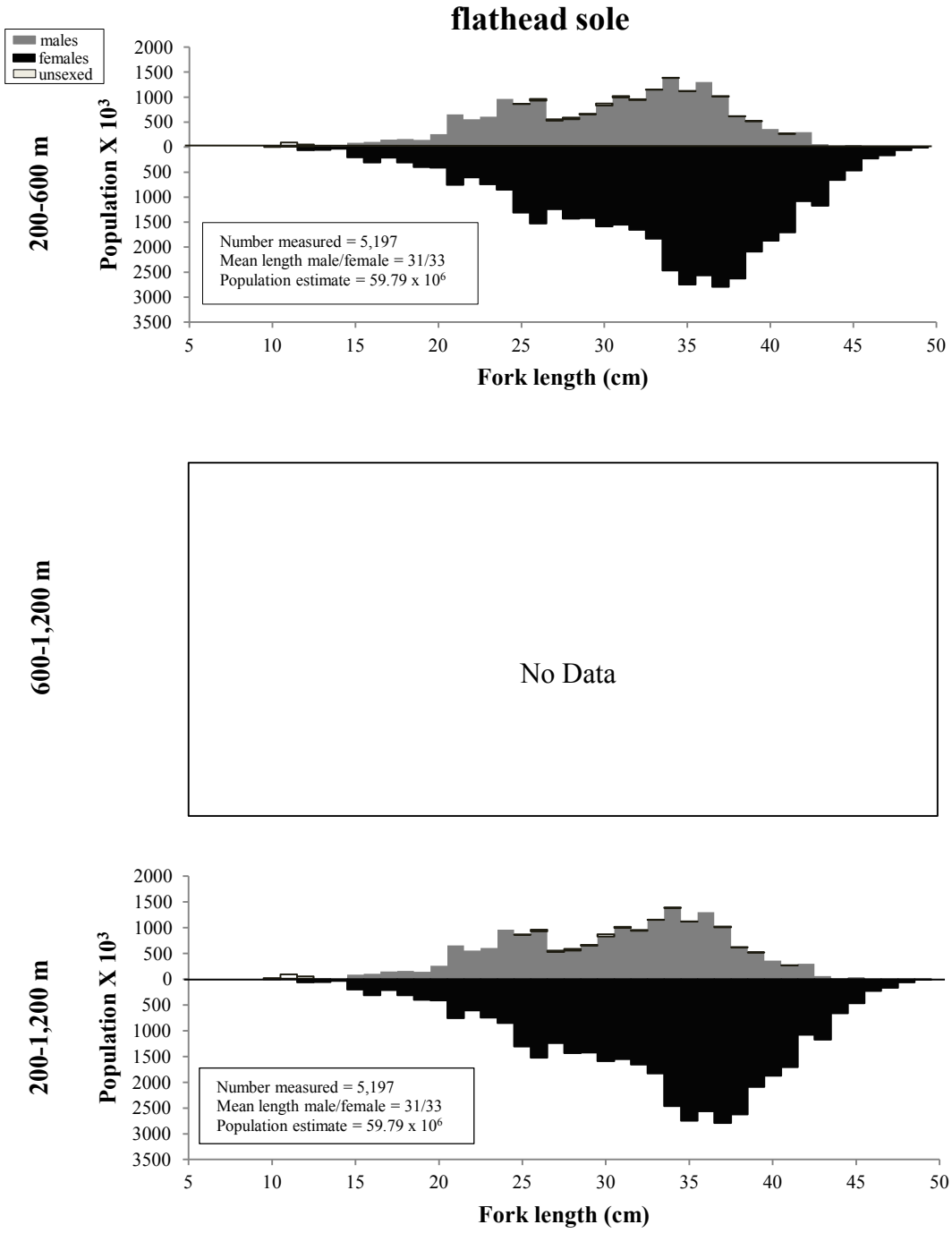


**Figure 65.** - - Size composition of the estimated flathead sole population from the 2012 EBSS survey for all subareas by depth.

**Table 40. - -** Abundance estimates by subarea and depth stratum for flathead sole (*Hippoglossoides elassodon* ) from the 2012 EBSS survey.

***Hippoglossoides elassodon*** **flathead sole**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | **200-400** | 4.25E+03 | 1.54E+07 | 6.15E+05 | 6.47E+12 | 1.06E+01 | 3.84E+01 |
| | **400-600** | 4.10E+03 | 6.63E+06 | 9.82E+05 | 2.66E+12 | 1.01E+01 | 1.63E+01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 2 | **200-400** | 1.36E+03 | 2.35E+06 | 4.08E+05 | 1.04E+12 | 1.17E+01 | 2.03E+01 |
| | **400-600** | 3.02E+01 | 3.61E+04 | 9.13E+02 | 1.30E+09 | 4.28E-01 | 5.12E-01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 3 | **200-400** | 7.22E+02 | 1.62E+06 | 1.02E+05 | 5.38E+11 | 7.99E+00 | 1.79E+01 |
| | **400-600** | 1.66E+03 | 2.42E+06 | 3.71E+05 | 8.23E+11 | 1.87E+01 | 2.73E+01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 4 | **200-400** | 2.40E+03 | 5.44E+06 | 1.46E+06 | 5.94E+12 | 1.94E+01 | 4.40E+01 |
| | **400-600** | 5.52E+02 | 9.34E+05 | 1.70E+05 | 5.50E+11 | 7.56E+00 | 1.28E+01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 5 | **200-400** | 3.08E+02 | 9.64E+05 | 1.59E+04 | 6.91E+10 | 7.28E+00 | 2.28E+01 |
| | **400-600** | 6.24E+02 | 1.05E+06 | 8.78E+04 | 2.31E+11 | 1.47E+01 | 2.46E+01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 6 | **200-400** | 5.65E+03 | 2.19E+07 | 2.19E+06 | 2.77E+13 | 2.18E+01 | 8.43E+01 |
| | **400-600** | 4.71E+02 | 1.09E+06 | 2.21E+04 | 1.34E+11 | 2.76E+00 | 6.38E+00 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **2.21E+04** | **5.98E+07** | **6.43E+06** | **4.62E+13** | **6.88E+00** | **1.86E+01** |

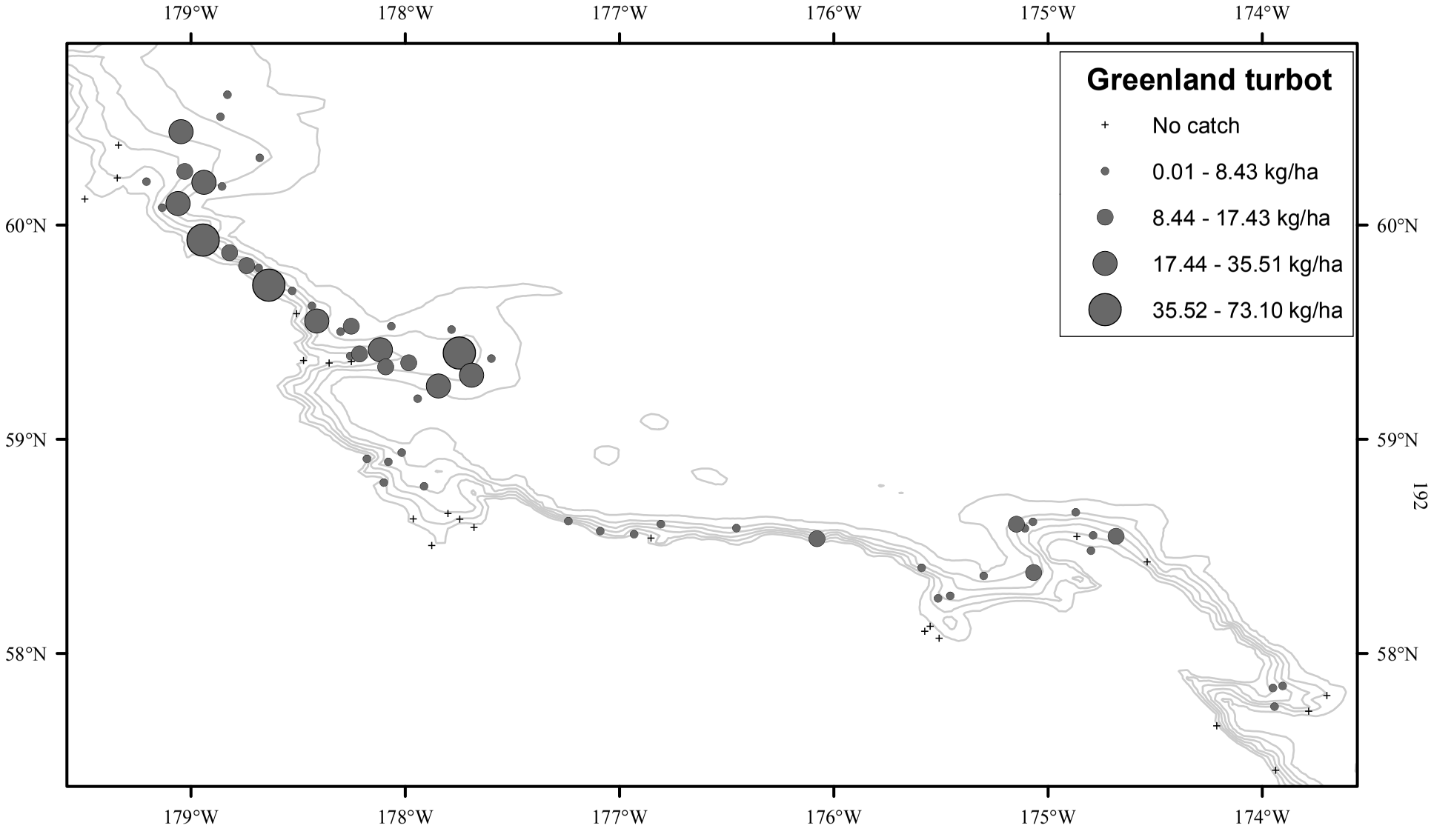


**Figure 66.** - - Distribution and relative abundance of Greenland turbot from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

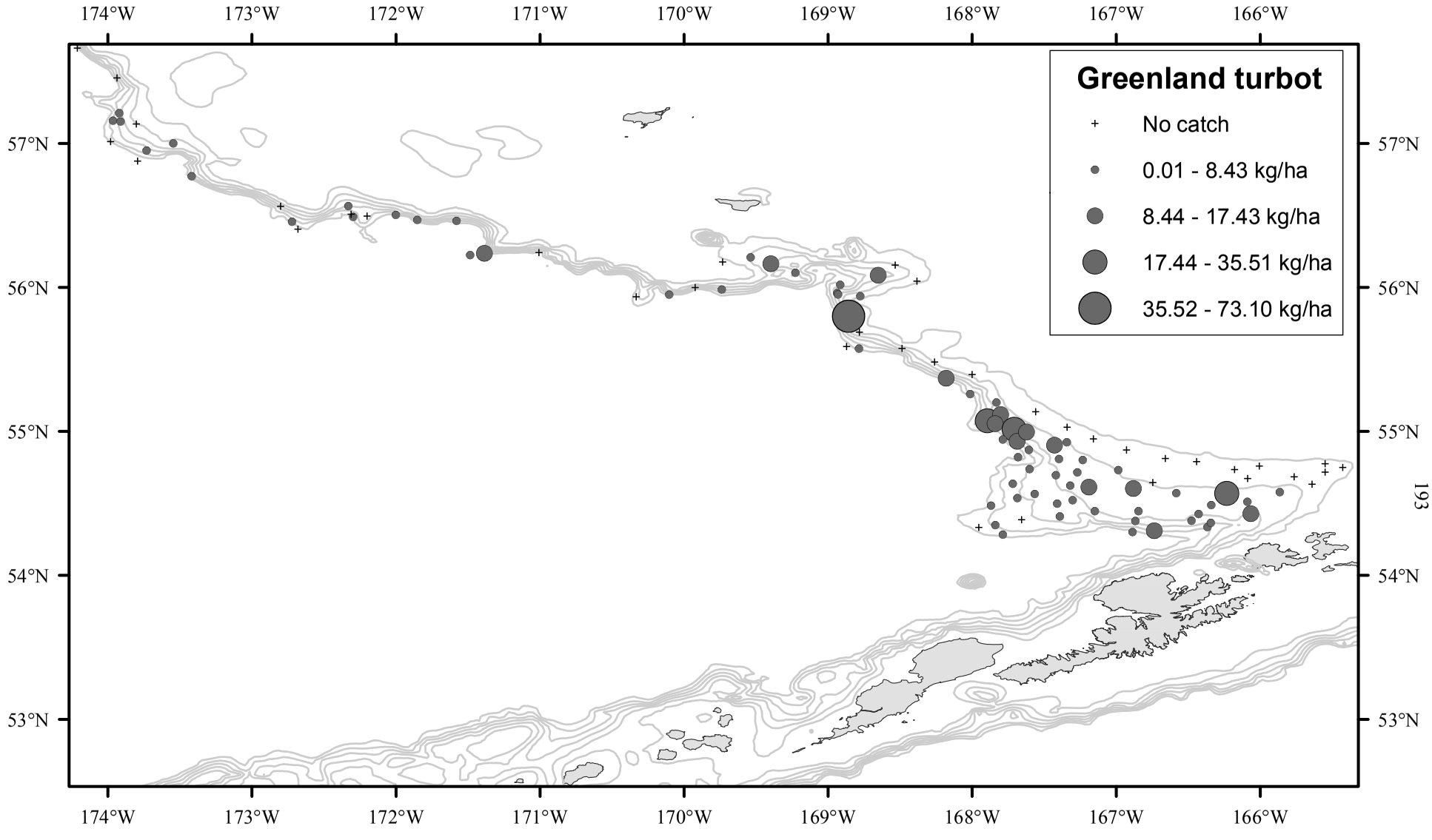


**Figure 66.** - - Continued.

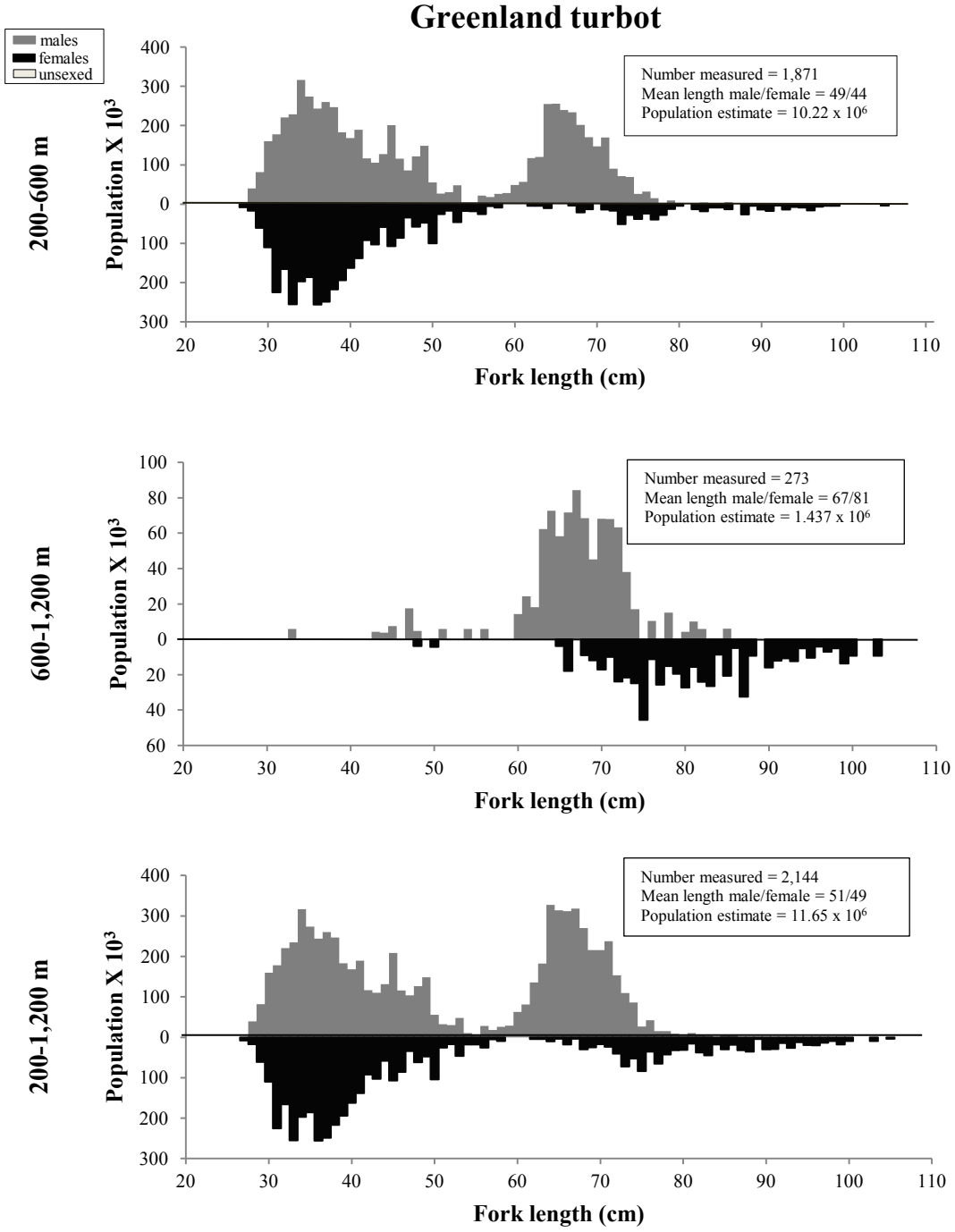


**Figure 67.** - - Size composition of the estimated Greenland turbot population from the 2012 EBSS survey for all subareas by depth.

**Table 41. - -** Abundance estimates by subarea and depth stratum for Greenland turbot (*Reinhardtius hippoglossoides* ) from the 2012 EBSS survey.

***Reinhardtius hippoglossoides*** **Greenland turbot**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 4.18E+01 | 1.49E+04 | 5.74E+02 | 6.65E+07 | 1.04E-01 | 3.71E-02 |
| | 400-600 | 3.75E+03 | 1.27E+06 | 4.82E+05 | 6.61E+10 | 9.24E+00 | 3.12E+00 |
| | 600-800 | 1.04E+03 | 2.83E+05 | 9.20E+04 | 9.33E+09 | 5.97E+00 | 1.63E+00 |
| | 800-1,000 | 5.25E+02 | 9.38E+04 | 4.79E+04 | 1.36E+09 | 3.88E+00 | 6.92E-01 |
| | 1,000-1,200 | 2.41E+02 | 5.02E+04 | 9.52E+03 | 3.94E+08 | 2.17E+00 | 4.54E-01 |
| 2 | 200-400 | 3.17E+00 | 5.07E+03 | 1.01E+01 | 2.57E+07 | 2.74E-02 | 4.38E-02 |
| | 400-600 | 1.24E+03 | 4.94E+05 | 9.95E+05 | 1.66E+11 | 1.75E+01 | 7.00E+00 |
| | 600-800 | 5.56E+02 | 1.94E+05 | 4.38E+04 | 5.17E+09 | 9.40E+00 | 3.28E+00 |
| | 800-1,000 | 8.16E+01 | 2.44E+04 | 2.48E+03 | 1.61E+08 | 1.48E+00 | 4.41E-01 |
| | 1,000-1,200 | 1.14E+02 | 2.42E+04 | 4.70E+03 | 2.55E+08 | 2.12E+00 | 4.51E-01 |
| 3 | 200-400 | 1.61E+01 | 5.28E+03 | 2.58E+02 | 2.79E+07 | 1.78E-01 | 5.84E-02 |
| | 400-600 | 1.44E+02 | 4.45E+04 | 2.68E+03 | 8.08E+07 | 1.62E+00 | 5.02E-01 |
| | 600-800 | 4.41E+02 | 1.48E+05 | 4.05E+04 | 3.68E+09 | 4.85E+00 | 1.62E+00 |
| | 800-1,000 | 8.05E+01 | 2.72E+04 | 2.53E+03 | 4.57E+08 | 1.10E+00 | 3.72E-01 |
| | 1,000-1,200 | 1.48E+01 | 4.05E+03 | 2.18E+02 | 1.64E+07 | 2.18E-01 | 6.00E-02 |
| 4 | 200-400 | 1.55E+01 | 3.12E+04 | 8.22E+01 | 4.18E+08 | 1.25E-01 | 2.52E-01 |
| | 400-600 | 5.09E+02 | 2.17E+05 | 4.91E+04 | 1.34E+10 | 6.97E+00 | 2.97E+00 |
| | 600-800 | 3.87E+02 | 9.50E+04 | 1.20E+04 | 7.04E+08 | 5.57E+00 | 1.37E+00 |
| | 800-1,000 | 1.13E+02 | 4.17E+04 | 1.27E+04 | 1.74E+09 | 1.59E+00 | 5.90E-01 |
| | 1,000-1,200 | 3.56E+01 | 6.92E+03 | 1.27E+03 | 4.79E+07 | 5.38E-01 | 1.04E-01 |
| 5 | 200-400 | 1.05E+01 | 2.21E+04 | 1.43E+01 | 4.09E+07 | 2.48E-01 | 5.21E-01 |
| | 400-600 | 2.46E+02 | 1.12E+05 | 8.21E+03 | 3.57E+09 | 5.79E+00 | 2.63E+00 |
| | 600-800 | 5.53E+01 | 1.58E+04 | 3.06E+03 | 2.50E+08 | 1.28E+00 | 3.66E-01 |
| | 800-1,000 | 2.52E+02 | 5.32E+04 | 1.70E+04 | 7.08E+08 | 4.56E+00 | 9.63E-01 |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 2.19E+03 | 3.11E+06 | 2.13E+05 | 6.29E+11 | 8.44E+00 | 1.20E+01 |
| | 400-600 | 4.37E+03 | 4.90E+06 | 1.11E+06 | 5.90E+12 | 2.56E+01 | 2.87E+01 |
| | 600-800 | 1.40E+03 | 3.70E+05 | 3.64E+05 | 3.29E+10 | 1.53E+01 | 4.03E+00 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | 5.16E+01 | 6.14E+03 | 2.66E+03 | 3.78E+07 | 1.04E+00 | 1.24E-01 |
| **1-6** | **200-1,200** | **1.79E+04** | **1.17E+07** | **3.52E+06** | **6.84E+12** | **5.74E+00** | **3.83E+00** |

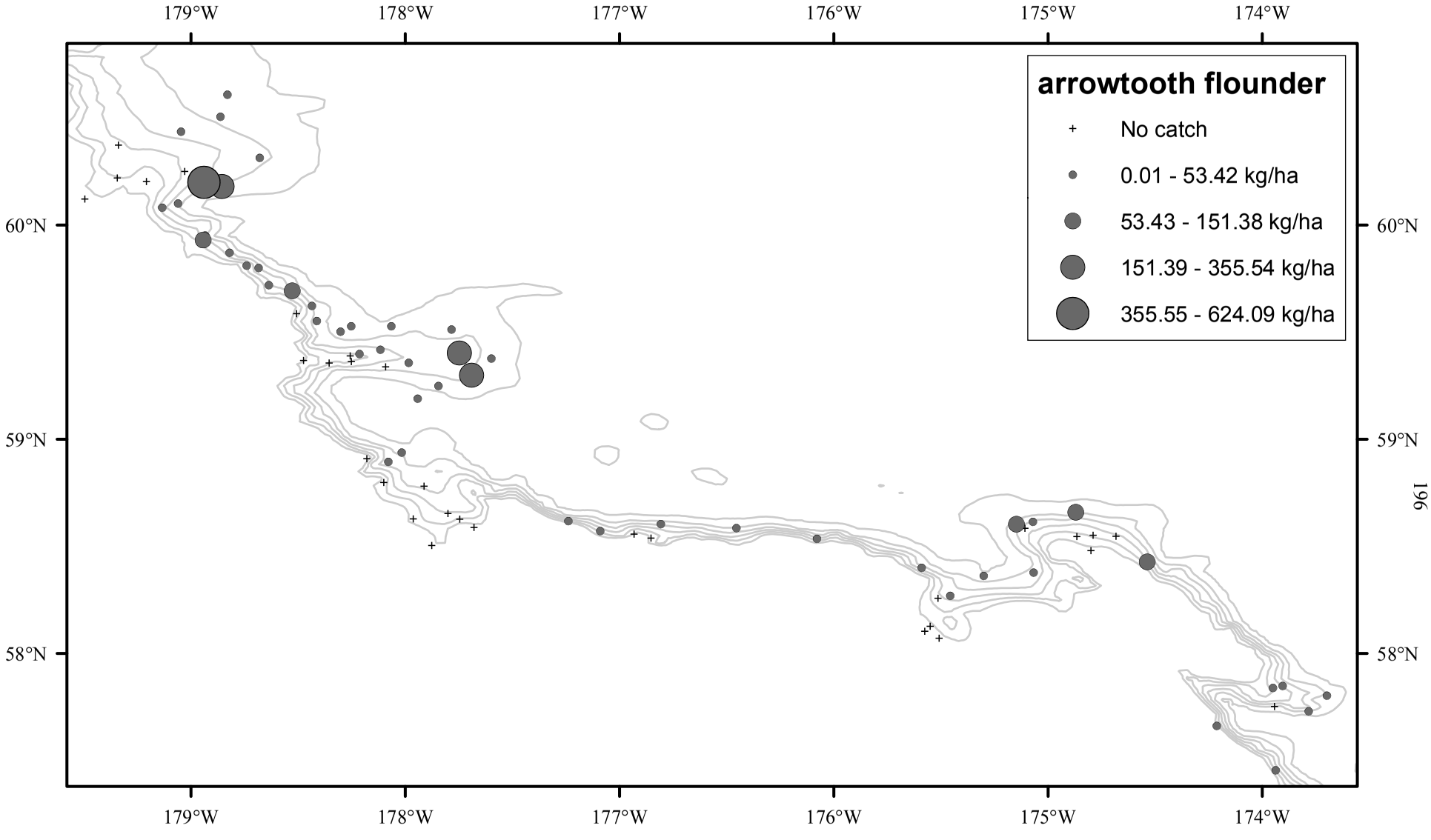


**Figure 68.** - - Distribution and relative abundance of arrowtooth flounder from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

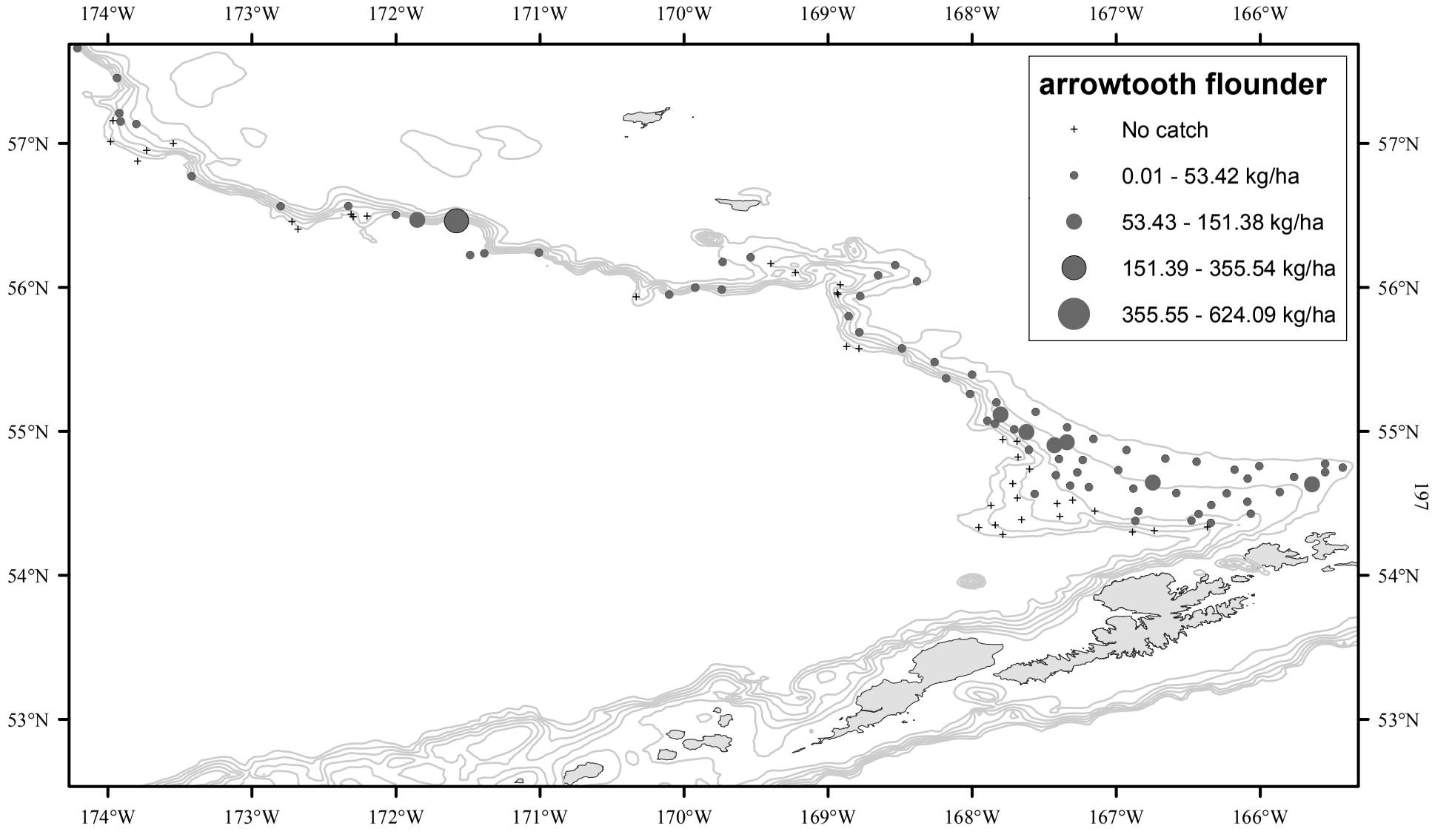




**Figure 68.** - - Continued.

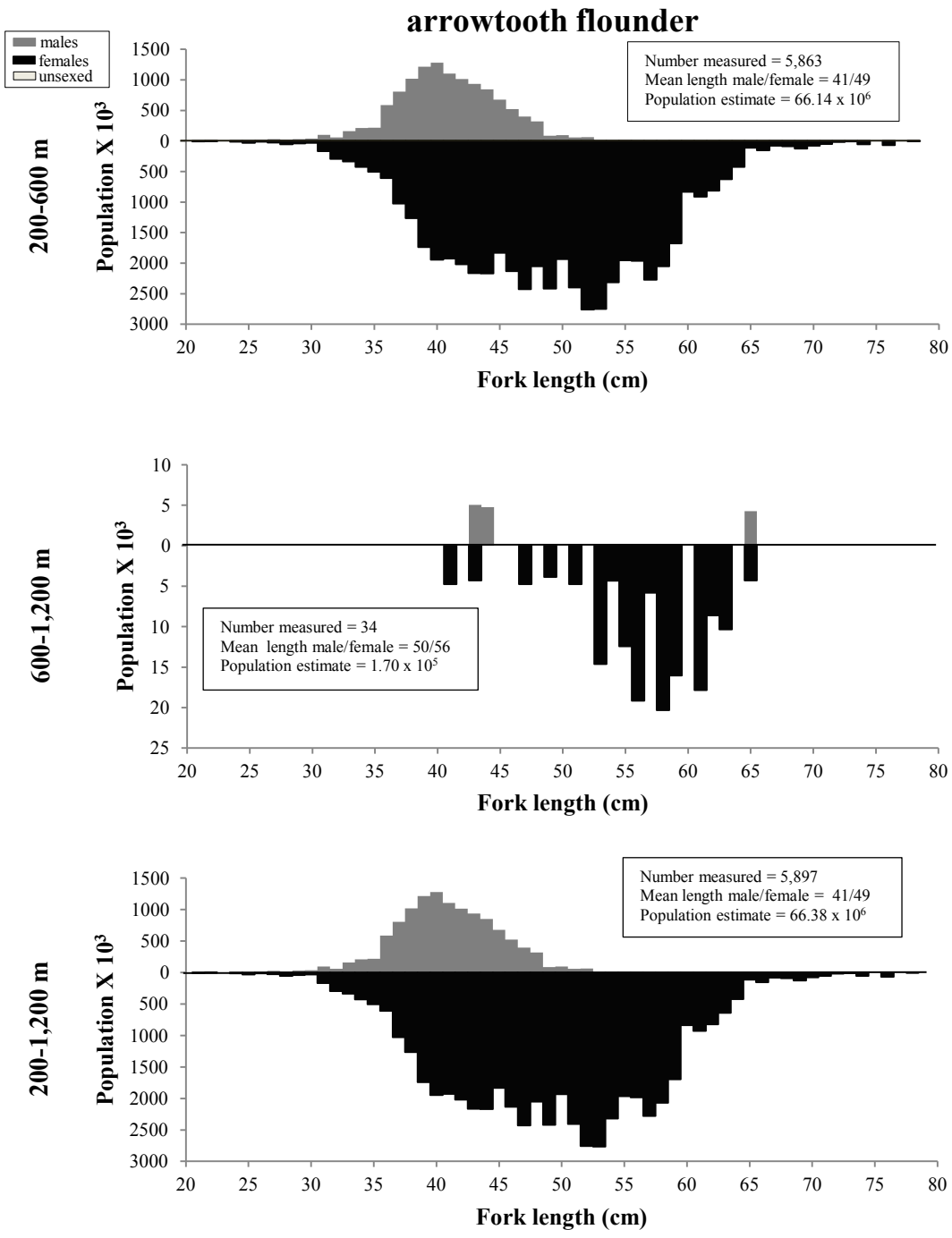


**Figure 69.** - - Size composition of the estimated arrowtooth flounder population from the 2012 EBSS survey for all subareas by depth.

**Table 42. - -** Abundance estimates by subarea and depth stratum for arrowtooth flounder (*Atheresthes stomias* ) from the 2012 EBSS survey.

***Atheresthes stomias*** **arrowtooth flounder**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 9.64E+03 | 1.19E+07 | 5.03E+06 | 7.00E+12 | 2.40E+01 | 2.96E+01 |
| | 400-600 | 7.52E+03 | 8.64E+06 | 4.51E+06 | 7.84E+12 | 1.85E+01 | 2.13E+01 |
| | 600-800 | 1.51E+02 | 7.29E+04 | 1.64E+03 | 4.13E+08 | 8.64E-01 | 4.19E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 3.02E+03 | 2.86E+06 | 5.14E+05 | 4.62E+11 | 2.61E+01 | 2.47E+01 |
| | 400-600 | 6.55E+02 | 4.79E+05 | 3.10E+04 | 5.70E+10 | 9.29E+00 | 6.80E+00 |
| | 600-800 | 4.22E+01 | 2.07E+04 | 1.78E+03 | 4.29E+08 | 7.14E-01 | 3.50E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 3.61E+03 | 2.92E+06 | 3.09E+06 | 1.48E+12 | 4.00E+01 | 3.23E+01 |
| | 400-600 | 6.64E+03 | 3.75E+06 | 3.18E+07 | 9.61E+12 | 7.49E+01 | 4.23E+01 |
| | 600-800 | 3.43E+01 | 1.95E+04 | 4.65E+02 | 1.42E+08 | 3.77E-01 | 2.14E-01 |
| | 800-1,000 | 2.35E+01 | 2.37E+04 | 5.53E+02 | 5.64E+08 | 3.21E-01 | 3.24E-01 |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 6.05E+03 | 6.87E+06 | 2.74E+06 | 4.40E+12 | 4.89E+01 | 5.56E+01 |
| | 400-600 | 2.53E+03 | 1.49E+06 | 2.27E+06 | 6.87E+11 | 3.46E+01 | 2.04E+01 |
| | 600-800 | 1.15E+01 | 7.76E+03 | 1.32E+02 | 6.02E+07 | 1.65E-01 | 1.12E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 7.84E+02 | 8.14E+05 | 1.61E+04 | 1.98E+10 | 1.85E+01 | 1.92E+01 |
| | 400-600 | 5.66E+02 | 3.47E+05 | 1.21E+05 | 4.70E+10 | 1.33E+01 | 8.15E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 1.13E+04 | 1.28E+07 | 1.73E+07 | 2.02E+13 | 4.37E+01 | 4.92E+01 |
| | 400-600 | 2.02E+04 | 1.33E+07 | 1.04E+08 | 3.91E+13 | 1.18E+02 | 7.81E+01 |
| | 600-800 | 4.86E+01 | 2.57E+04 | 9.64E+02 | 2.69E+08 | 5.30E-01 | 2.80E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **7.28E+04** | **6.63E+07** | **1.71E+08** | **9.09E+13** | **2.31E+01** | **2.07E+01** |

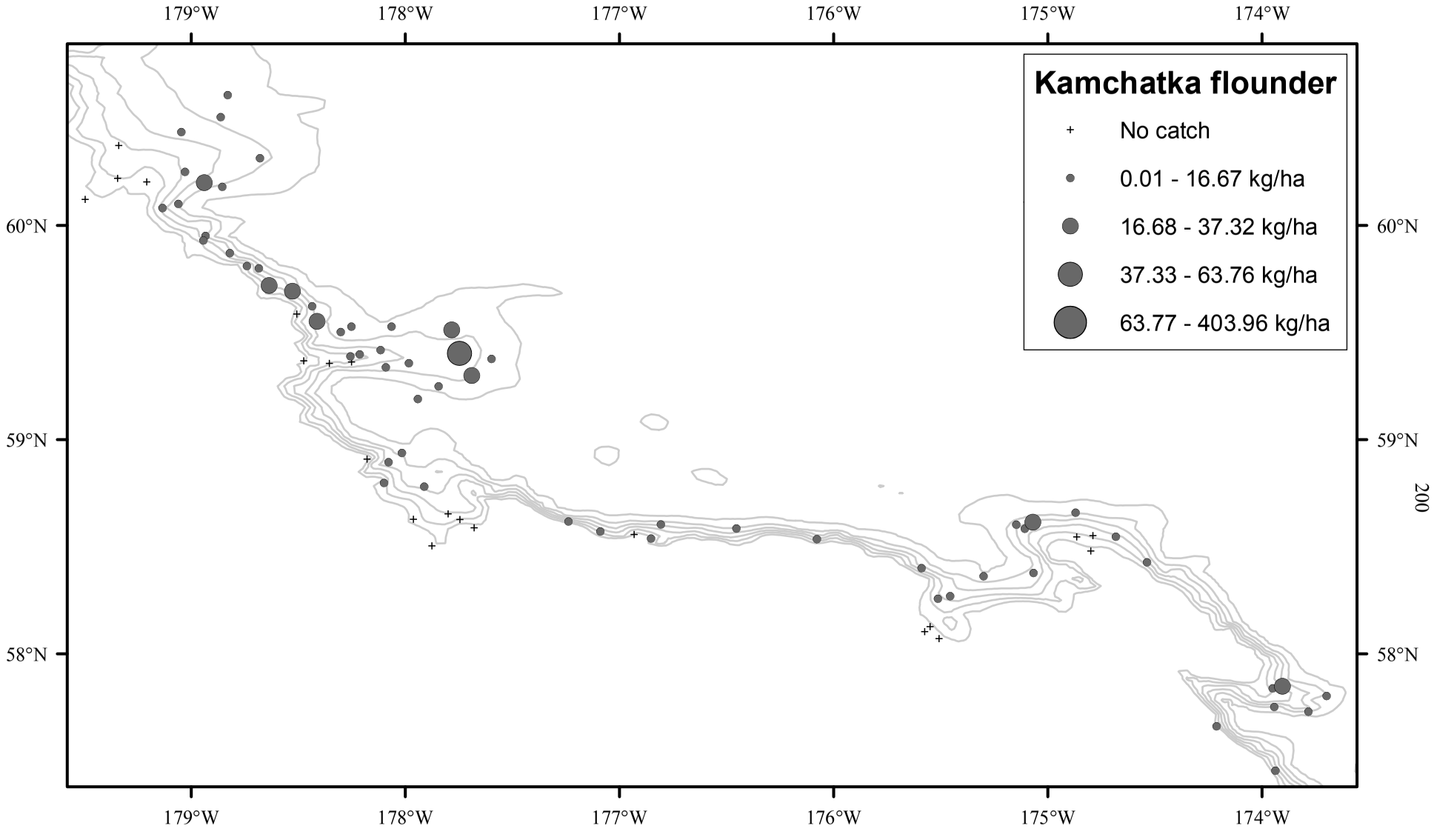


**Figure 70.** - - Distribution and relative abundance of Kamchatka flounder from the EBSS survey. Values are in ranges of CPUE (kg/ha).

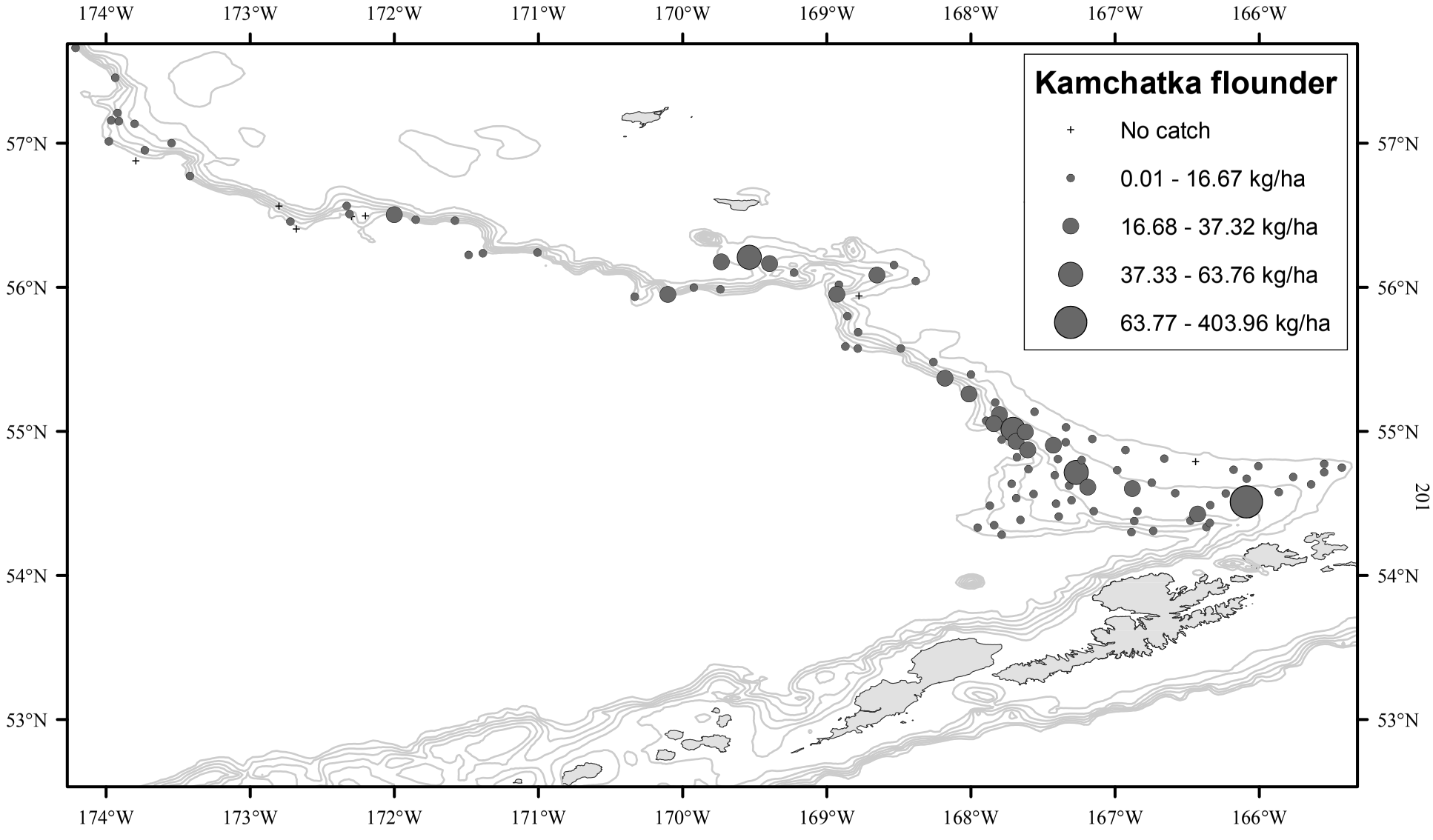


**Figure 70.** - - Continued.

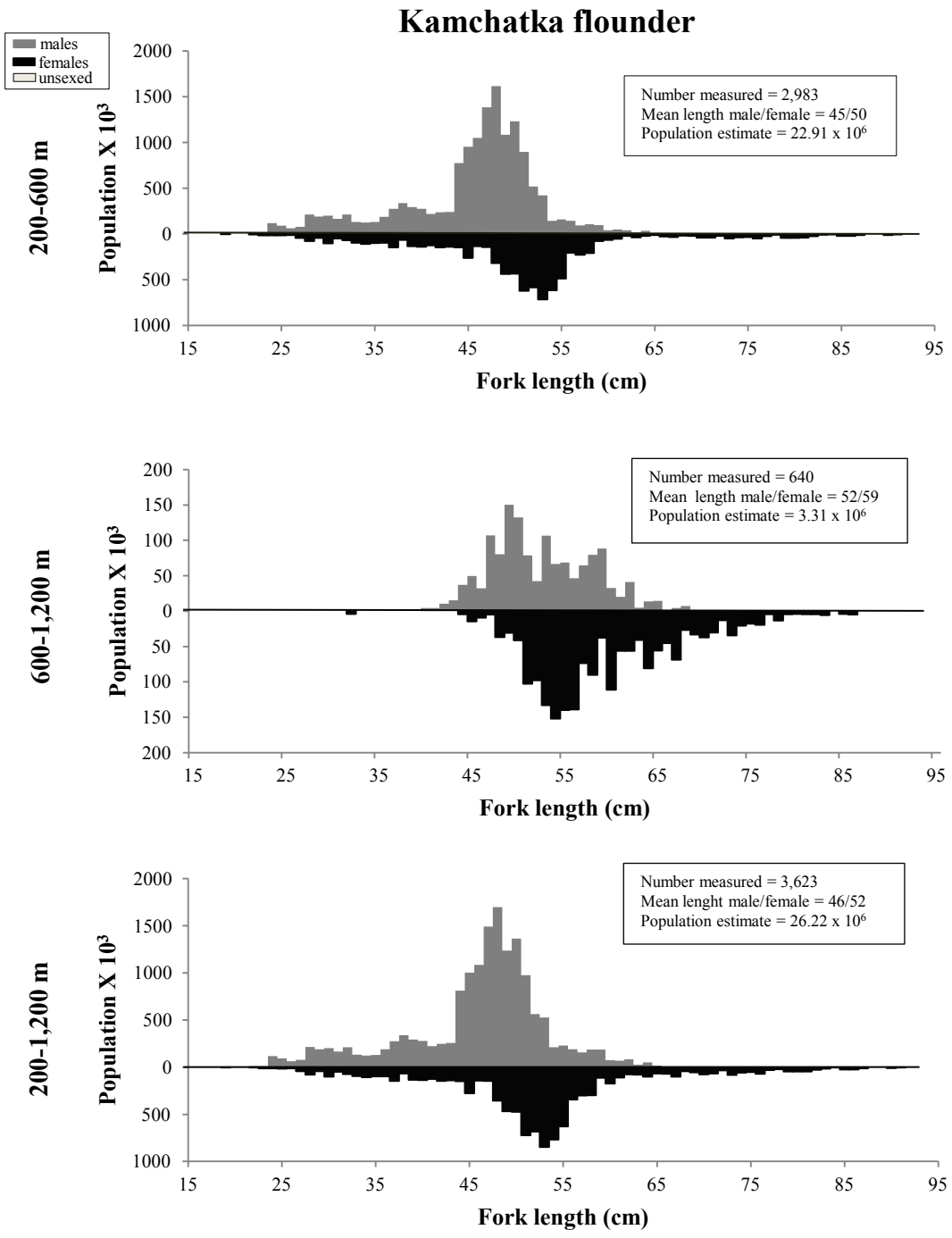


**Figure 69.** - - Size composition of the estimated Kamchatka flounder population from the 2012 EBSS survey for all subareas by depth.

**Table 43. - -** Abundance estimates by subarea and depth stratum for Kamchatka flounder (*Atheresthes evermanni* ) from the 2012 EBSS survey.

***Atheresthes evermanni*** **Kamchatka flounder**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 9.80E+02 | 1.53E+06 | 5.91E+04 | 9.53E+10 | 2.44E+00 | 3.82E+00 |
| | 400-600 | 1.39E+04 | 1.13E+07 | 4.76E+07 | 3.83E+13 | 3.42E+01 | 2.78E+01 |
| | 600-800 | 2.08E+03 | 1.03E+06 | 1.48E+05 | 4.73E+10 | 1.20E+01 | 5.94E+00 |
| | 800-1,000 | 4.72E+02 | 2.06E+05 | 8.75E+03 | 2.68E+09 | 3.49E+00 | 1.52E+00 |
| | 1,000-1,200 | 2.09E+02 | 8.93E+04 | 1.86E+03 | 5.14E+08 | 1.88E+00 | 8.07E-01 |
| 2 | 200-400 | 1.09E+03 | 9.05E+05 | 3.21E+05 | 5.09E+10 | 9.38E+00 | 7.82E+00 |
| | 400-600 | 1.87E+03 | 9.86E+05 | 8.34E+05 | 2.97E+11 | 2.65E+01 | 1.40E+01 |
| | 600-800 | 1.44E+03 | 9.01E+05 | 4.71E+04 | 4.10E+10 | 2.43E+01 | 1.52E+01 |
| | 800-1,000 | 1.83E+02 | 8.11E+04 | 6.88E+03 | 1.38E+09 | 3.32E+00 | 1.47E+00 |
| | 1,000-1,200 | 6.92E+01 | 3.49E+04 | 3.05E+02 | 3.53E+08 | 1.29E+00 | 6.51E-01 |
| 3 | 200-400 | 1.39E+02 | 2.06E+05 | 6.07E+03 | 1.35E+10 | 1.54E+00 | 2.28E+00 |
| | 400-600 | 1.07E+03 | 7.34E+05 | 1.35E+05 | 7.44E+10 | 1.21E+01 | 8.28E+00 |
| | 600-800 | 7.17E+02 | 4.14E+05 | 2.86E+04 | 7.61E+09 | 7.88E+00 | 4.54E+00 |
| | 800-1,000 | 2.59E+02 | 1.02E+05 | 1.17E+04 | 2.36E+09 | 3.53E+00 | 1.39E+00 |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 3.72E+02 | 5.08E+05 | 6.23E+03 | 4.75E+10 | 3.01E+00 | 4.11E+00 |
| | 400-600 | 9.69E+02 | 6.49E+05 | 5.40E+04 | 5.62E+10 | 1.33E+01 | 8.88E+00 |
| | 600-800 | 2.83E+02 | 1.23E+05 | 6.23E+03 | 1.27E+09 | 4.08E+00 | 1.77E+00 |
| | 800-1,000 | 7.58E+01 | 3.13E+04 | 5.75E+03 | 9.80E+08 | 1.07E+00 | 4.42E-01 |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 6.36E+01 | 5.44E+04 | 1.34E+03 | 8.41E+08 | 1.50E+00 | 1.28E+00 |
| | 400-600 | 3.47E+02 | 2.28E+05 | 1.94E+04 | 7.32E+09 | 8.15E+00 | 5.34E+00 |
| | 600-800 | 4.63E+01 | 2.59E+04 | 5.57E+02 | 1.92E+08 | 1.07E+00 | 6.00E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 2.46E+03 | 3.44E+06 | 3.98E+05 | 9.48E+11 | 9.48E+00 | 1.33E+01 |
| | 400-600 | 3.09E+03 | 2.36E+06 | 9.01E+05 | 5.68E+11 | 1.81E+01 | 1.38E+01 |
| | 600-800 | 4.96E+02 | 2.72E+05 | 6.62E+04 | 2.29E+10 | 5.41E+00 | 2.96E+00 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **3.27E+04** | **2.62E+07** | **5.06E+07** | **4.06E+13** | **1.01E+01** | **8.07E+00** |

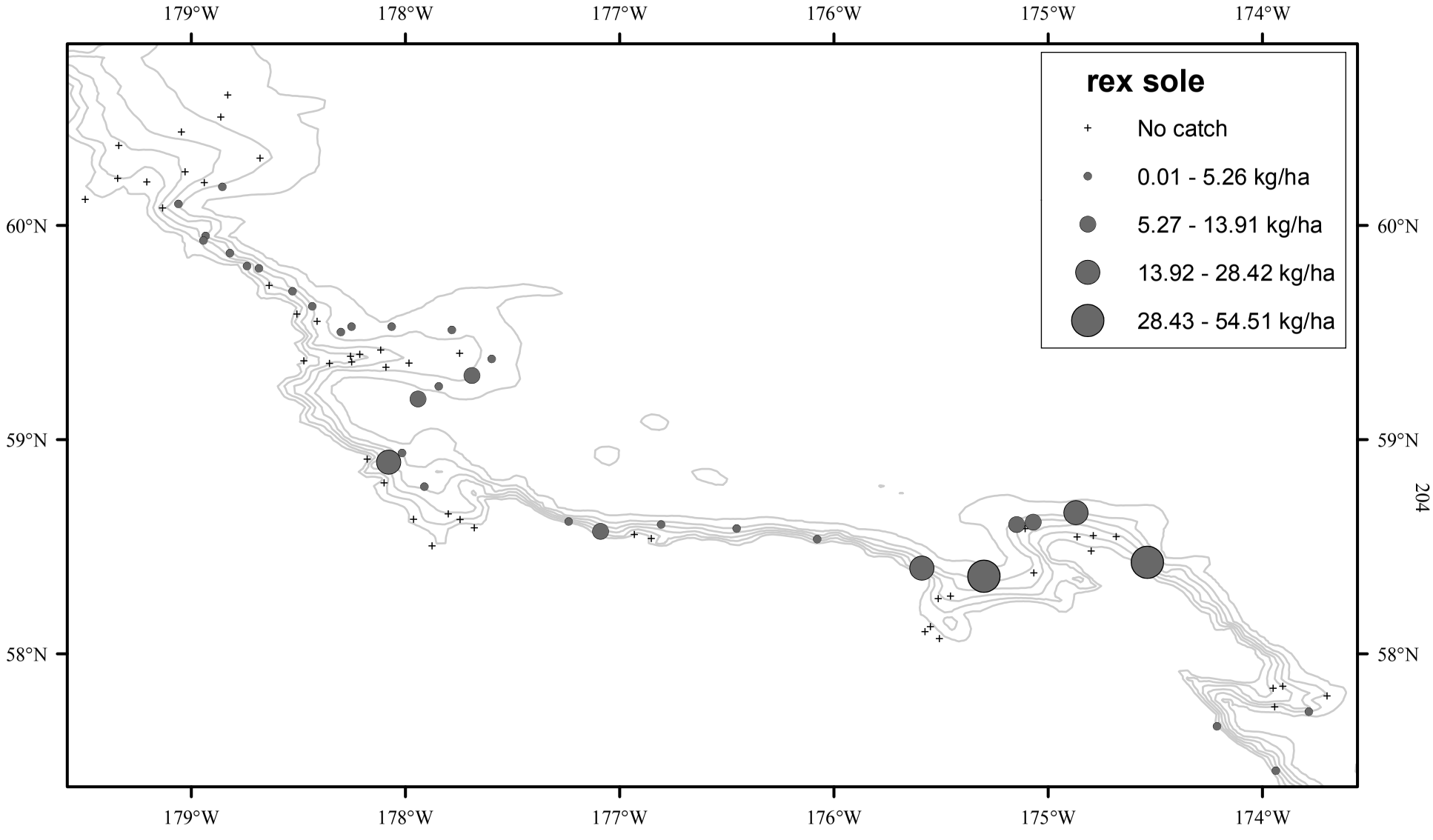


**Figure 72.** - - Distribution and relative abundance of rex sole from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

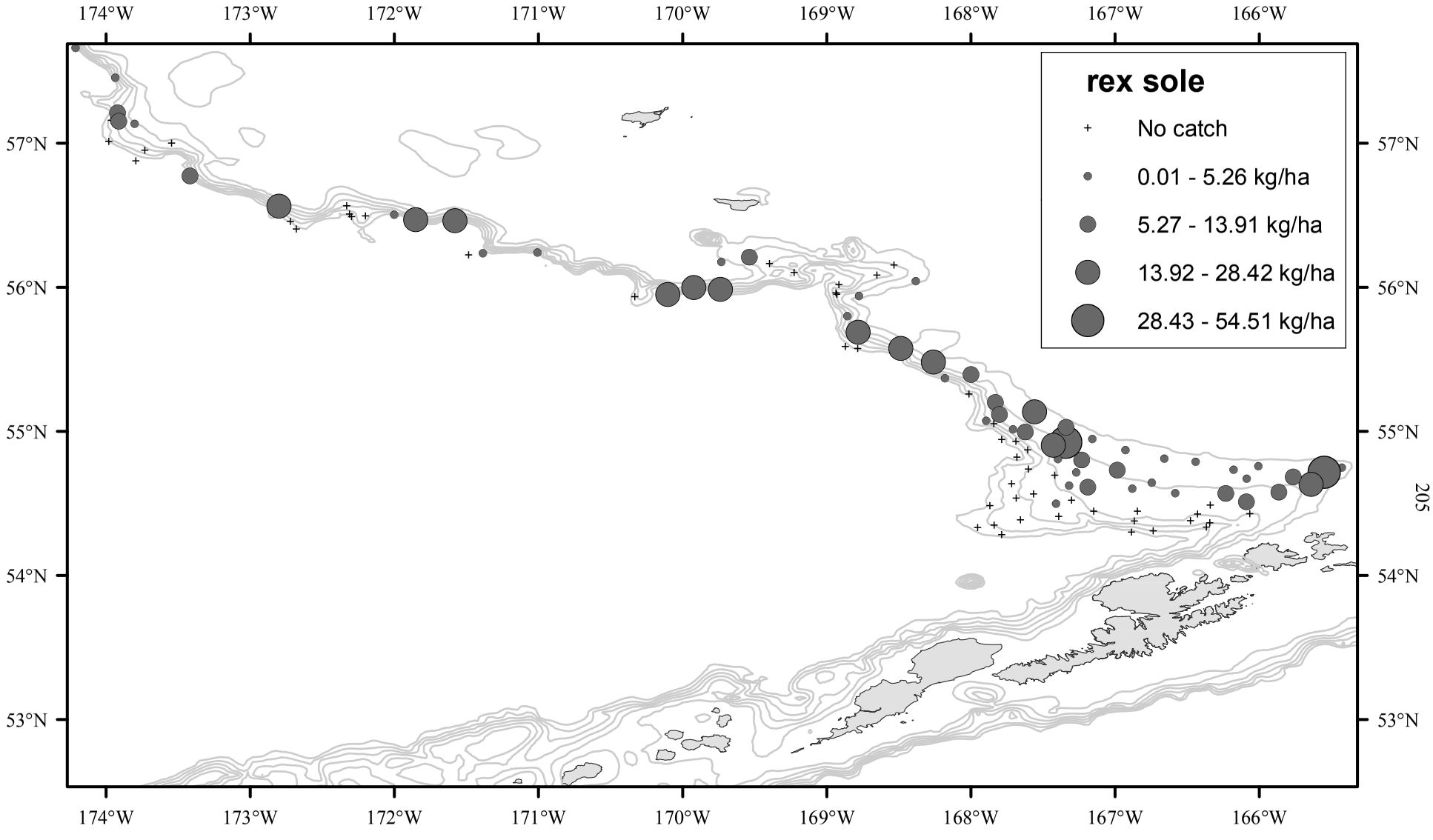




**Figure 72.** - - Continued.

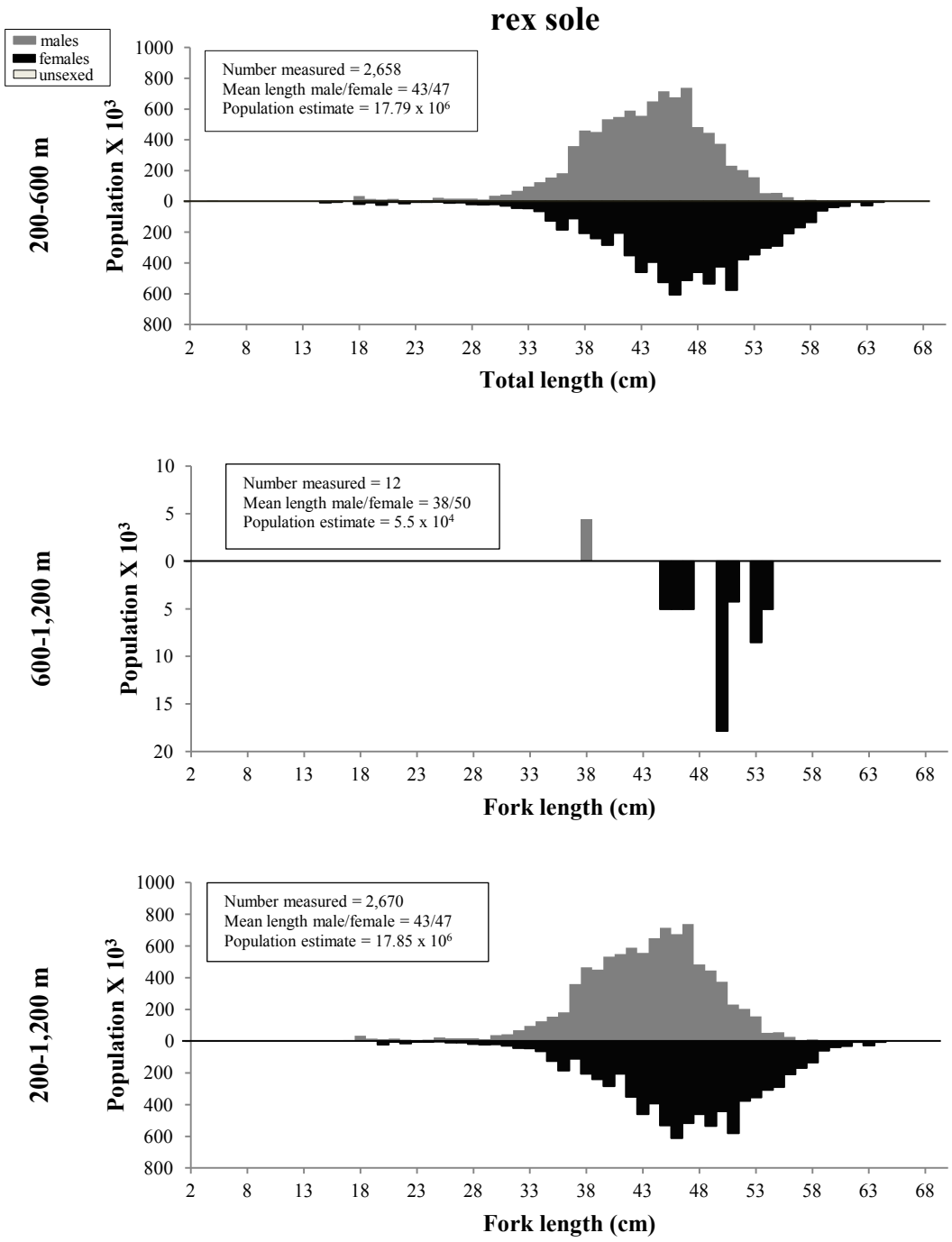


**Figure 73.** - - Size composition of the estimated rex sole population from the 2012 EBSS survey for all subareas by depth.

**Table 44. - -** Abundance estimates by subarea and depth stratum for rex sole (*Glyptocephalus zachirus* ) from the 2012 EBSS survey.

***Glyptocephalus zachirus*** **rex sole**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | **200-400** | 4.27E+03 | 5.44E+06 | 1.32E+06 | 2.19E+12 | 1.07E+01 | 1.36E+01 |
| | **400-600** | 1.77E+03 | 2.26E+06 | 1.80E+05 | 2.75E+11 | 4.36E+00 | 5.55E+00 |
| | **600-800** | 3.12E+01 | 3.00E+04 | 8.75E+02 | 6.50E+08 | 1.79E-01 | 1.72E-01 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 2 | **200-400** | 8.25E+02 | 1.15E+06 | 1.92E+05 | 4.51E+11 | 7.12E+00 | 9.95E+00 |
| | **400-600** | 1.05E+03 | 1.49E+06 | 1.92E+05 | 3.90E+11 | 1.49E+01 | 2.12E+01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 3 | **200-400** | 6.98E+02 | 9.47E+05 | 9.54E+04 | 1.82E+11 | 7.73E+00 | 1.05E+01 |
| | **400-600** | 1.06E+03 | 1.45E+06 | 1.54E+05 | 2.55E+11 | 1.20E+01 | 1.64E+01 |
| | **600-800** | 2.30E+01 | 2.52E+04 | 5.28E+02 | 6.35E+08 | 2.53E-01 | 2.77E-01 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 4 | **200-400** | 2.38E+03 | 2.65E+06 | 9.47E+05 | 1.13E+12 | 1.92E+01 | 2.14E+01 |
| | **400-600** | 3.09E+02 | 3.95E+05 | 3.71E+04 | 5.91E+10 | 4.23E+00 | 5.41E+00 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 5 | **200-400** | 6.72E+01 | 2.06E+05 | 2.44E+03 | 1.99E+10 | 1.59E+00 | 4.87E+00 |
| | **400-600** | 3.64E+02 | 6.42E+05 | 2.34E+04 | 1.09E+11 | 8.55E+00 | 1.51E+01 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| 6 | **200-400** | 4.56E+02 | 9.64E+05 | 2.59E+04 | 6.28E+10 | 1.76E+00 | 3.72E+00 |
| | **400-600** | 7.23E+01 | 1.91E+05 | 1.21E+03 | 9.78E+09 | 4.24E-01 | 1.12E+00 |
| | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **1.34E+04** | **1.78E+07** | **3.17E+06** | **5.14E+12** | **4.00E+00** | **5.41E+00** |

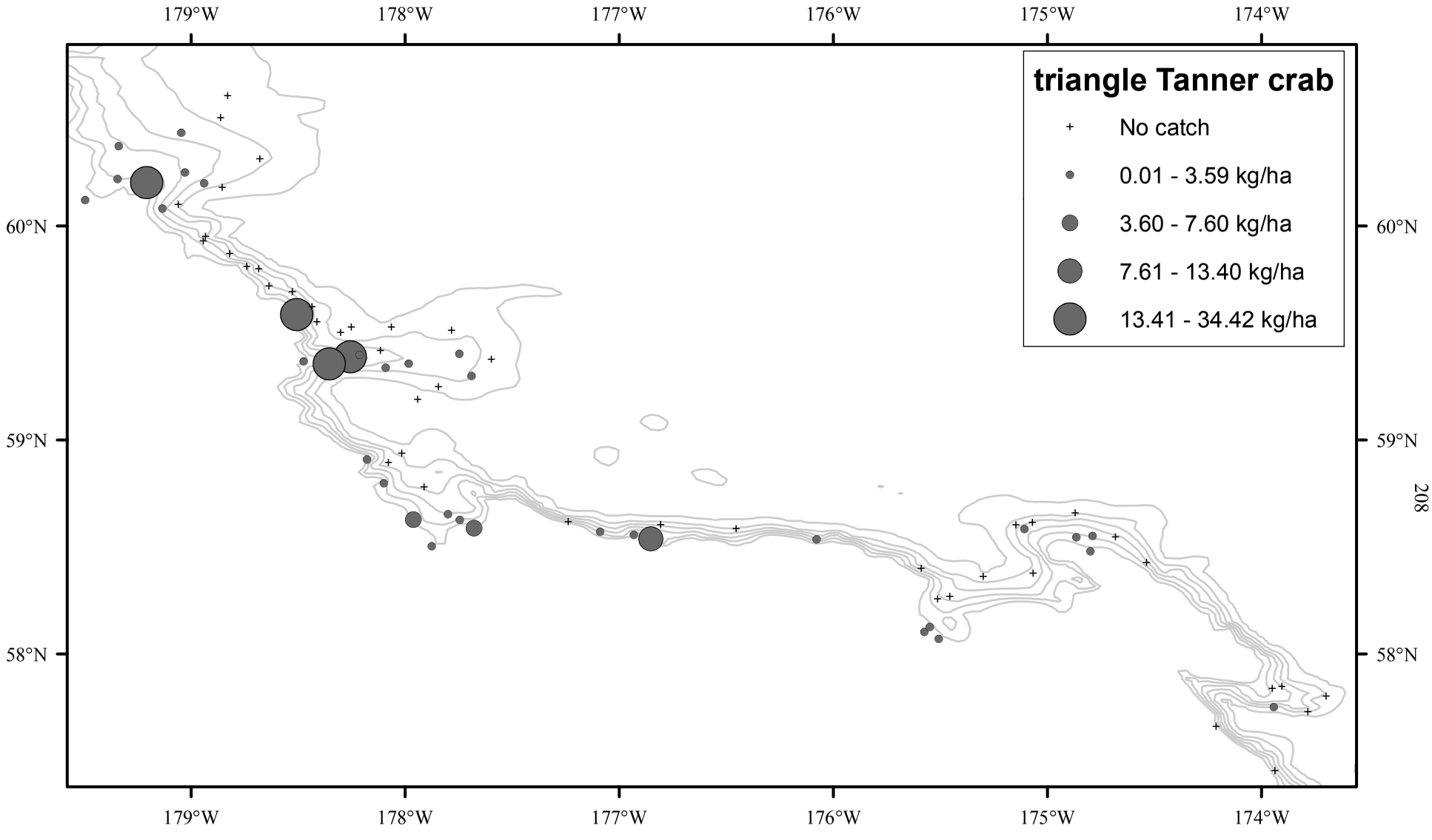


**Figure 74.** - - Distribution and relative abundance of triangle Tanner crab from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

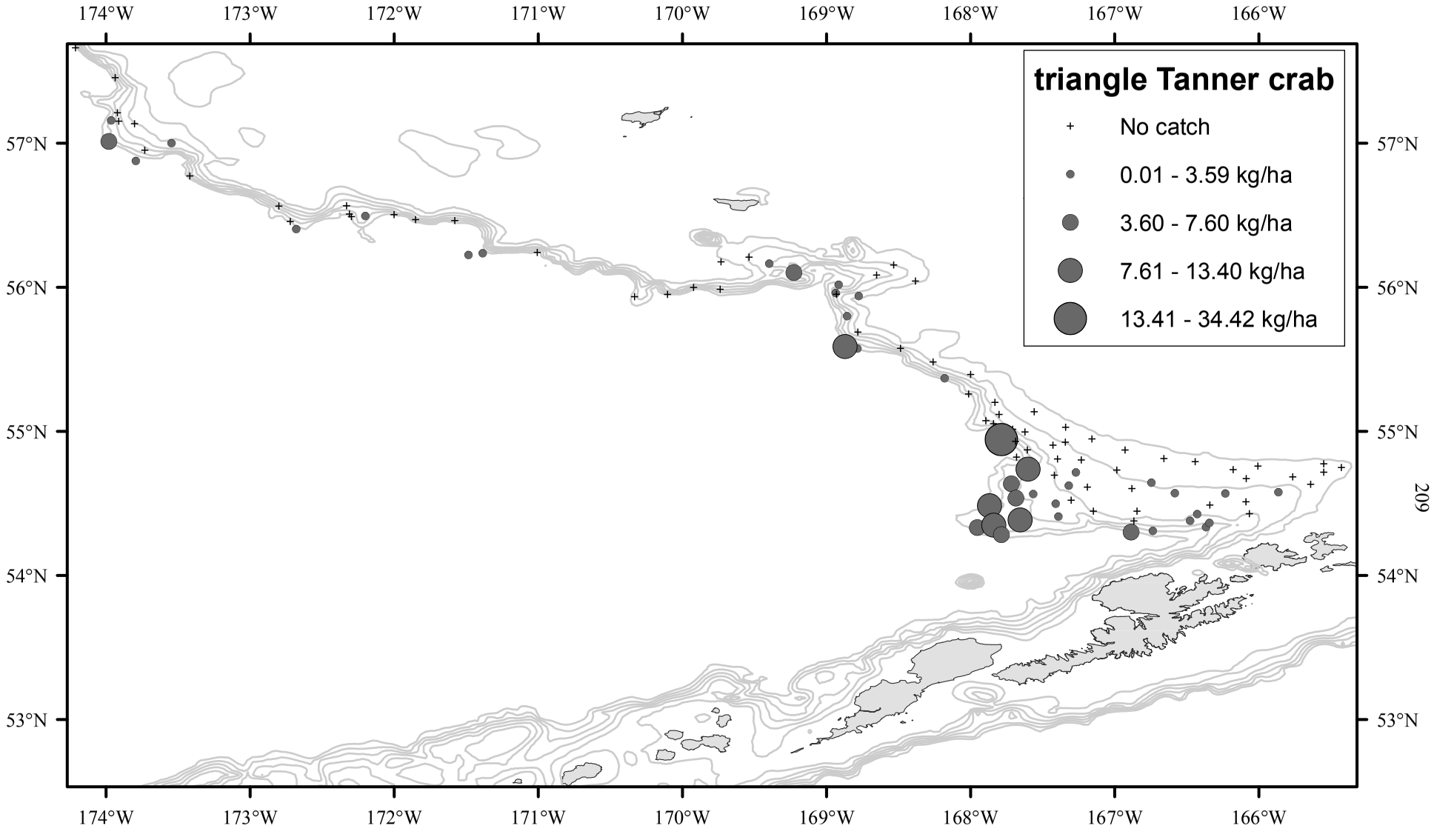




**Figure 74.** - - Continued.

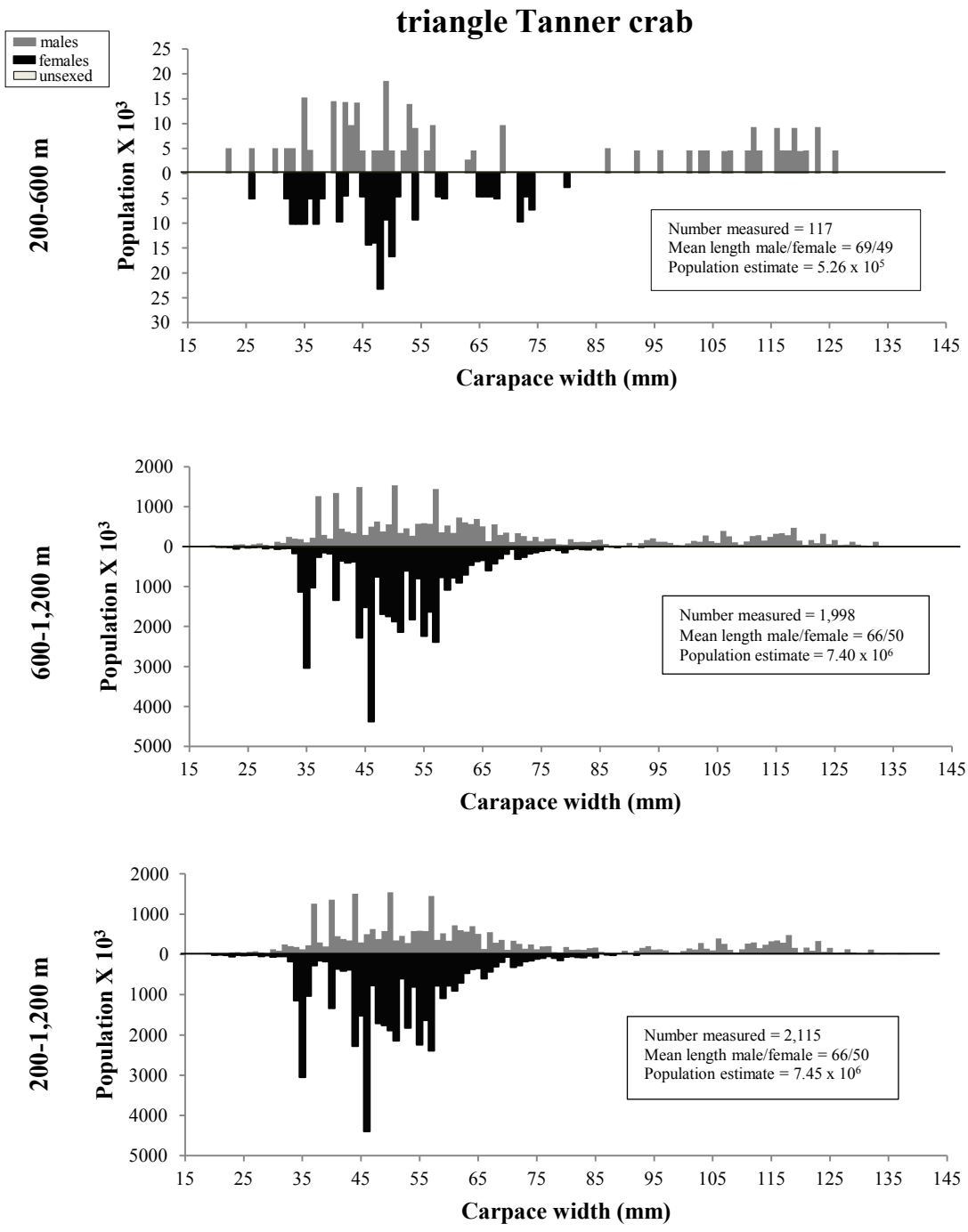


**Figure 75.** - - Size composition of the estimated triangle Tanner crab population from the 2012 EBSS survey for all subareas by depth.

**Table 45. - -** Abundance estimates by subarea and depth stratum for triangle Tanner crab (*Chionoecetes angulatus* ) from the 2012 EBSS survey.

***Chionoecetes angulatus*** **triangle Tanner crab**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 1.98E-01 | 1.41E+04 | 3.92E-02 | 2.00E+08 | 4.94E-04 | 3.53E-02 |
| | 400-600 | 5.71E+00 | 1.63E+05 | 7.61E+00 | 3.75E+09 | 1.41E-02 | 4.00E-01 |
| | 600-800 | 1.47E+01 | 2.20E+05 | 9.94E+01 | 1.36E+10 | 8.43E-02 | 1.26E+00 |
| | 800-1,000 | 8.05E+02 | 9.30E+06 | 5.13E+04 | 8.00E+12 | 5.94E+00 | 6.87E+01 |
| | 1,000-1,200 | 9.82E+02 | 1.15E+07 | 8.05E+04 | 1.81E+13 | 8.87E+00 | 1.04E+02 |
| 2 | 200-400 | 2.03E-01 | 5.07E+03 | 4.11E-02 | 2.57E+07 | 1.75E-03 | 4.38E-02 |
| | 400-600 | 7.59E+00 | 3.61E+04 | 5.75E+01 | 1.30E+09 | 1.08E-01 | 5.12E-01 |
| | 600-800 | 3.79E+01 | 2.71E+05 | 1.44E+03 | 7.35E+10 | 6.41E-01 | 4.59E+00 |
| | 800-1,000 | 1.45E+01 | 1.93E+05 | 1.96E+02 | 3.46E+10 | 2.62E-01 | 3.49E+00 |
| | 1,000-1,200 | 3.94E+02 | 2.91E+06 | 3.64E+04 | 3.09E+12 | 7.36E+00 | 5.44E+01 |
| 3 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | 1.85E+00 | 4.43E+04 | 1.93E+00 | 1.47E+09 | 2.03E-02 | 4.87E-01 |
| | 800-1,000 | 2.10E+02 | 1.64E+06 | 1.09E+04 | 3.78E+11 | 2.87E+00 | 2.24E+01 |
| | 1,000-1,200 | 2.70E+01 | 4.94E+05 | 1.60E+02 | 7.42E+10 | 3.99E-01 | 7.32E+00 |
| 4 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | 2.38E+00 | 8.74E+04 | 3.42E+00 | 6.85E+09 | 3.43E-02 | 1.26E+00 |
| | 800-1,000 | 3.76E+01 | 1.26E+06 | 6.03E+01 | 1.08E+11 | 5.31E-01 | 1.79E+01 |
| | 1,000-1,200 | 9.31E+01 | 1.37E+06 | 1.03E+03 | 5.17E+11 | 1.41E+00 | 2.07E+01 |
| 5 | 200-400 | | | | | | |
| | 400-600 | 9.72E-01 | 1.10E+04 | 3.75E-01 | 6.02E+07 | 2.28E-02 | 2.59E-01 |
| | 600-800 | 1.45E+02 | 8.77E+05 | 1.82E+04 | 7.23E+11 | 3.36E+00 | 2.03E+01 |
| | 800-1,000 | 3.84E+01 | 5.36E+05 | 3.26E+02 | 1.10E+11 | 6.95E-01 | 9.71E+00 |
| | 1,000-1,200 | 2.42E+02 | 3.40E+06 | 1.19E+04 | 4.31E+12 | 4.24E+00 | 5.96E+01 |
| 6 | 200-400 | 1.10E+00 | 4.66E+03 | 1.21E+00 | 2.17E+07 | 4.24E-03 | 1.80E-02 |
| | 400-600 | 3.97E+01 | 2.97E+05 | 6.75E+02 | 3.70E+10 | 2.33E-01 | 1.74E+00 |
| | 600-800 | 3.97E+02 | 3.52E+06 | 6.86E+04 | 6.61E+12 | 4.33E+00 | 3.84E+01 |
| | 800-1,000 | 9.58E+02 | 3.08E+07 | 2.41E+05 | 5.42E+14 | 1.48E+01 | 4.77E+02 |
| | 1,000-1,200 | 4.97E+02 | 5.60E+06 | 1.48E+05 | 2.02E+13 | 1.00E+01 | 1.13E+02 |
| **1-6** | **200-1,200** | **4.95E+03** | **7.45E+07** | **6.71E+05** | **6.04E+14** | **1.50E+00** | **2.29E+01** |

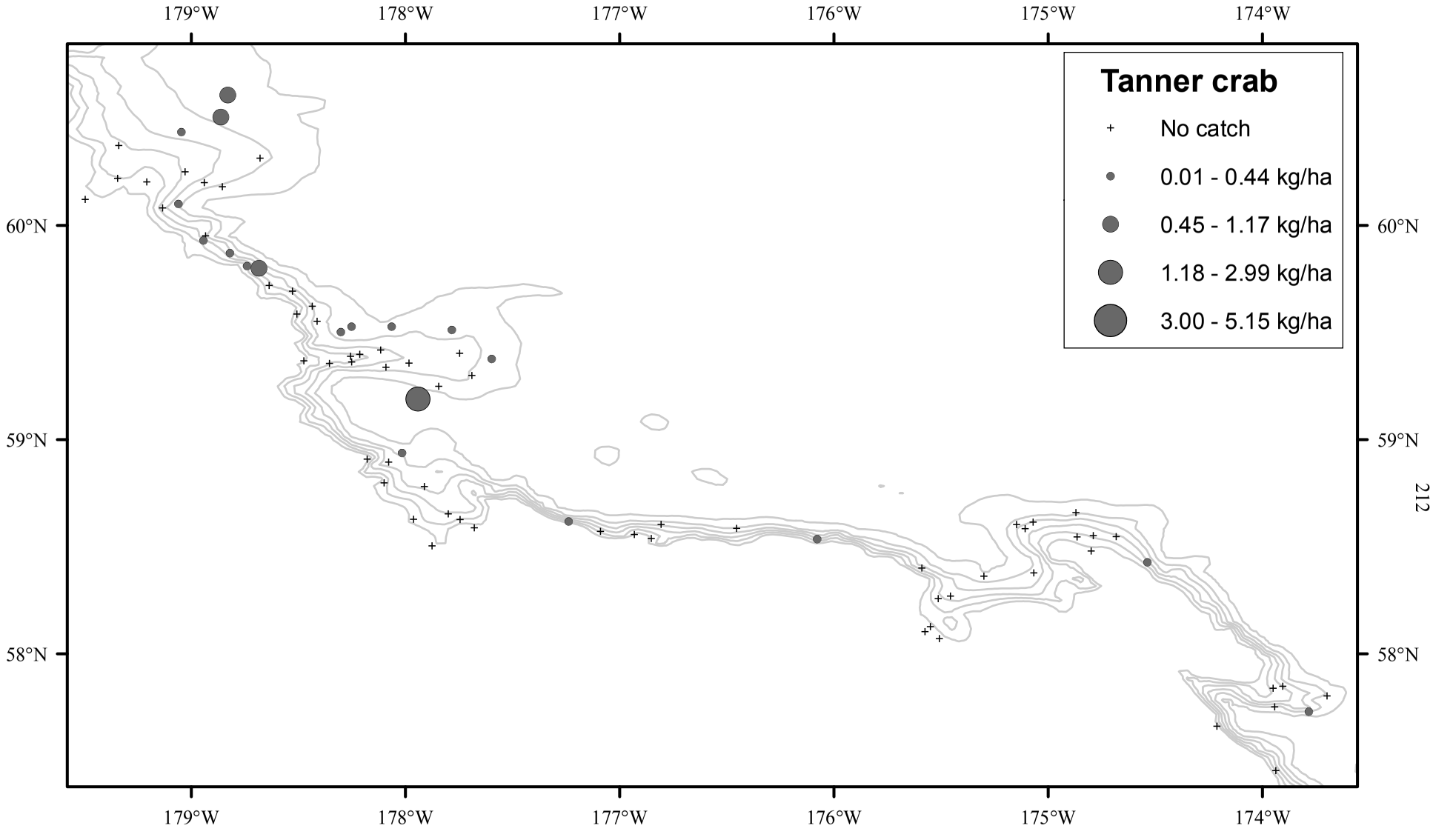


**Figure 76.** - - Distribution and relative abundance of Tanner crab from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

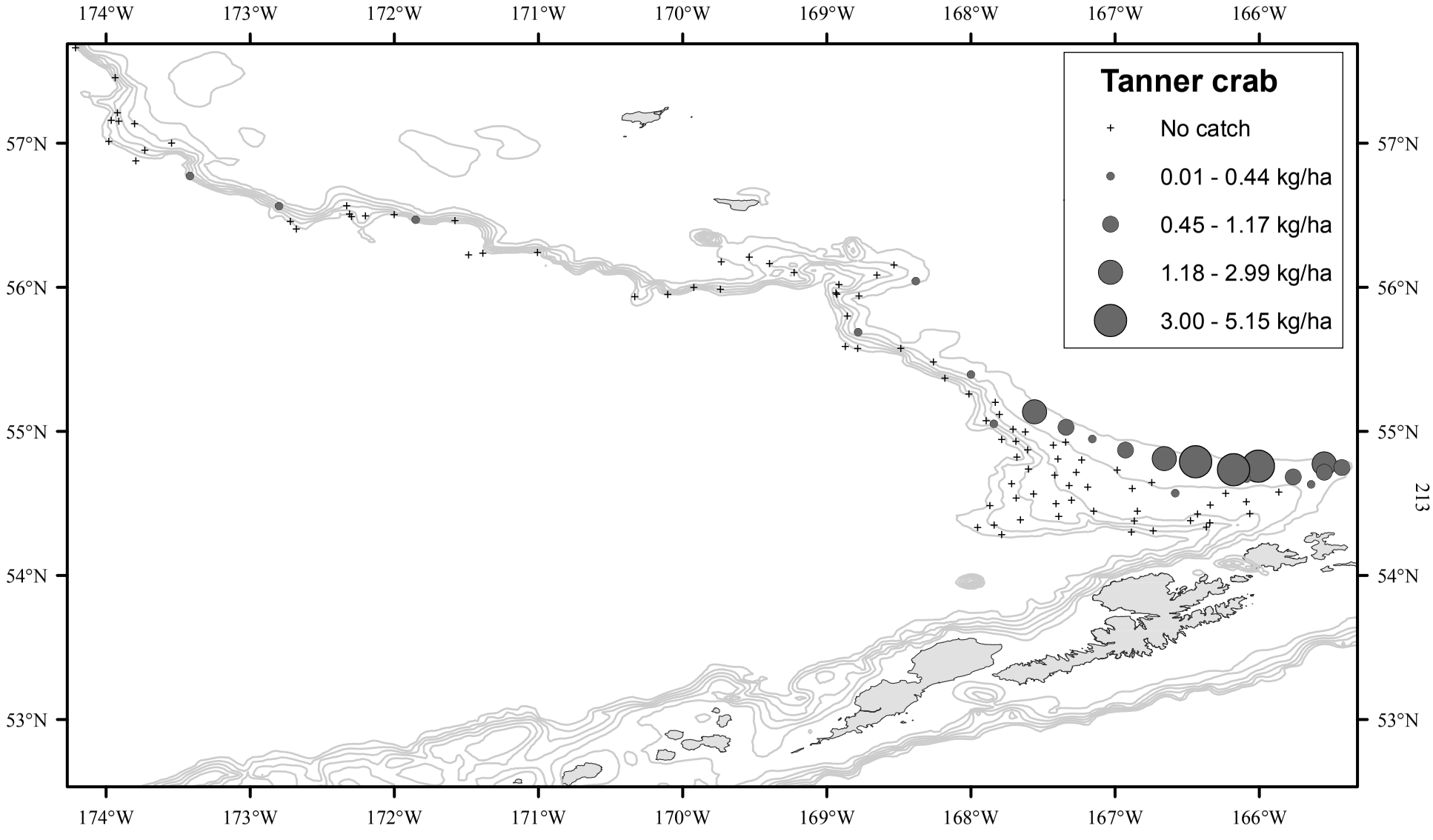




**Figure 76.** - - Continued.

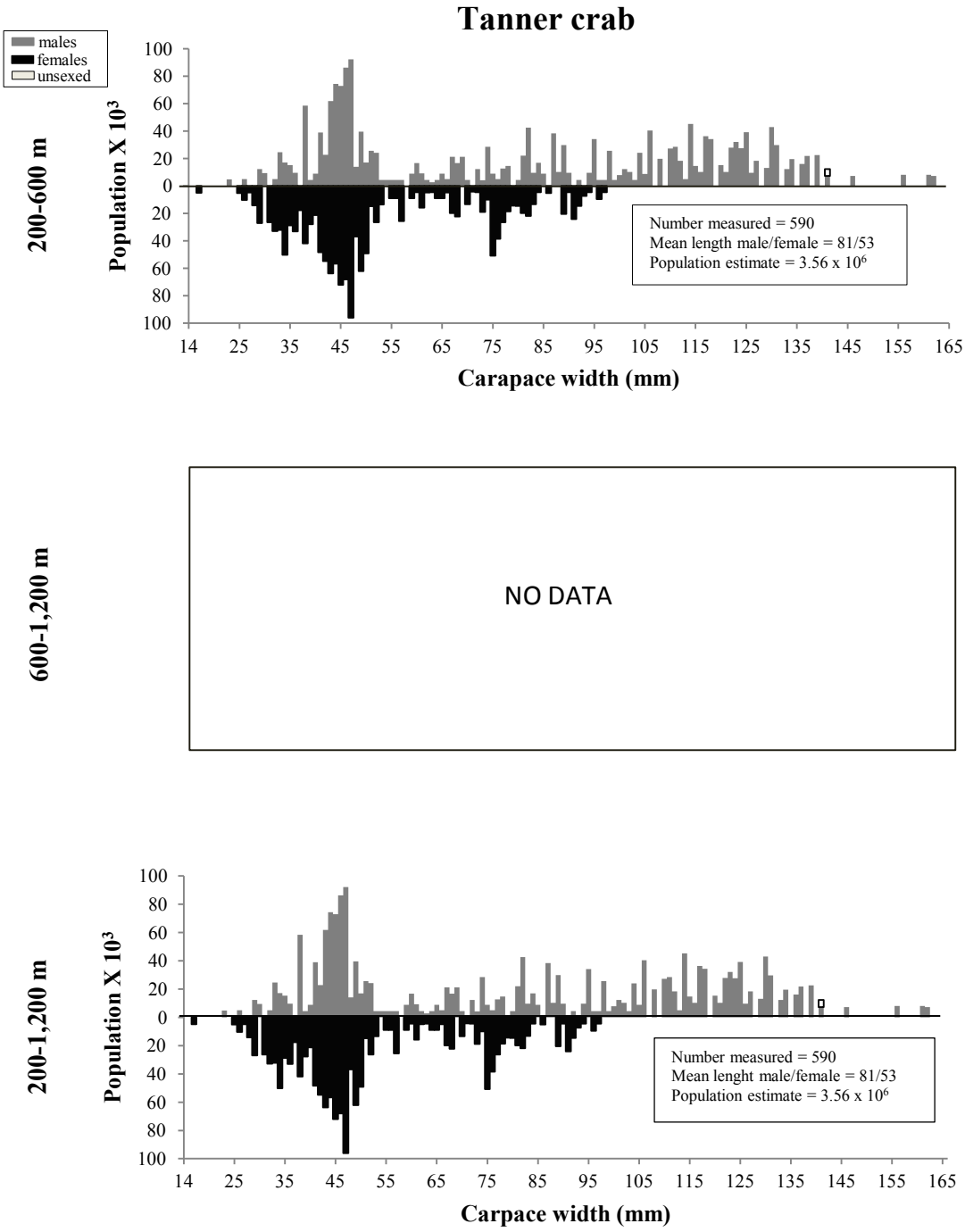


**Figure 77.** - - Size composition of the estimated Tanner crab population from the 2012 EBSS survey for all subareas by depth.

**Table 46. - -** Abundance estimates by subarea and depth stratum for Tanner crab (*Chionoecetes bairdi* ) from the 2012 EBSS survey.

***Chionoecetes bairdi*** **Tanner crab**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 4.99E+02 | 2.46E+06 | 2.24E+04 | 7.07E+11 | 1.24E+00 | 6.12E+00 |
| | 400-600 | 7.95E+00 | 3.04E+04 | 3.02E+01 | 6.79E+08 | 1.96E-02 | 7.47E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 1.70E+00 | 4.43E+04 | 1.27E+00 | 1.13E+09 | 1.47E-02 | 3.83E-01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 2.90E-01 | 1.40E+04 | 3.35E-02 | 8.03E+07 | 3.21E-03 | 1.54E-01 |
| | 400-600 | 7.83E-01 | 5.22E+03 | 6.13E-01 | 2.73E+07 | 8.84E-03 | 5.89E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 6.17E+00 | 9.64E+04 | 1.97E+01 | 4.11E+09 | 4.99E-02 | 7.80E-01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 3.07E+00 | 3.13E+04 | 6.78E+00 | 4.82E+08 | 7.24E-02 | 7.39E-01 |
| | 400-600 | 6.70E-02 | 2.79E+03 | 4.49E-03 | 7.80E+06 | 1.57E-03 | 6.56E-02 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 8.99E+01 | 8.51E+05 | 1.18E+03 | 9.02E+10 | 3.46E-01 | 3.28E+00 |
| | 400-600 | 4.06E+00 | 3.34E+04 | 6.31E+00 | 3.77E+08 | 2.38E-02 | 1.96E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **6.13E+02** | **3.56E+06** | **2.36E+04** | **8.04E+11** | **1.75E-01** | **1.04E+00** |

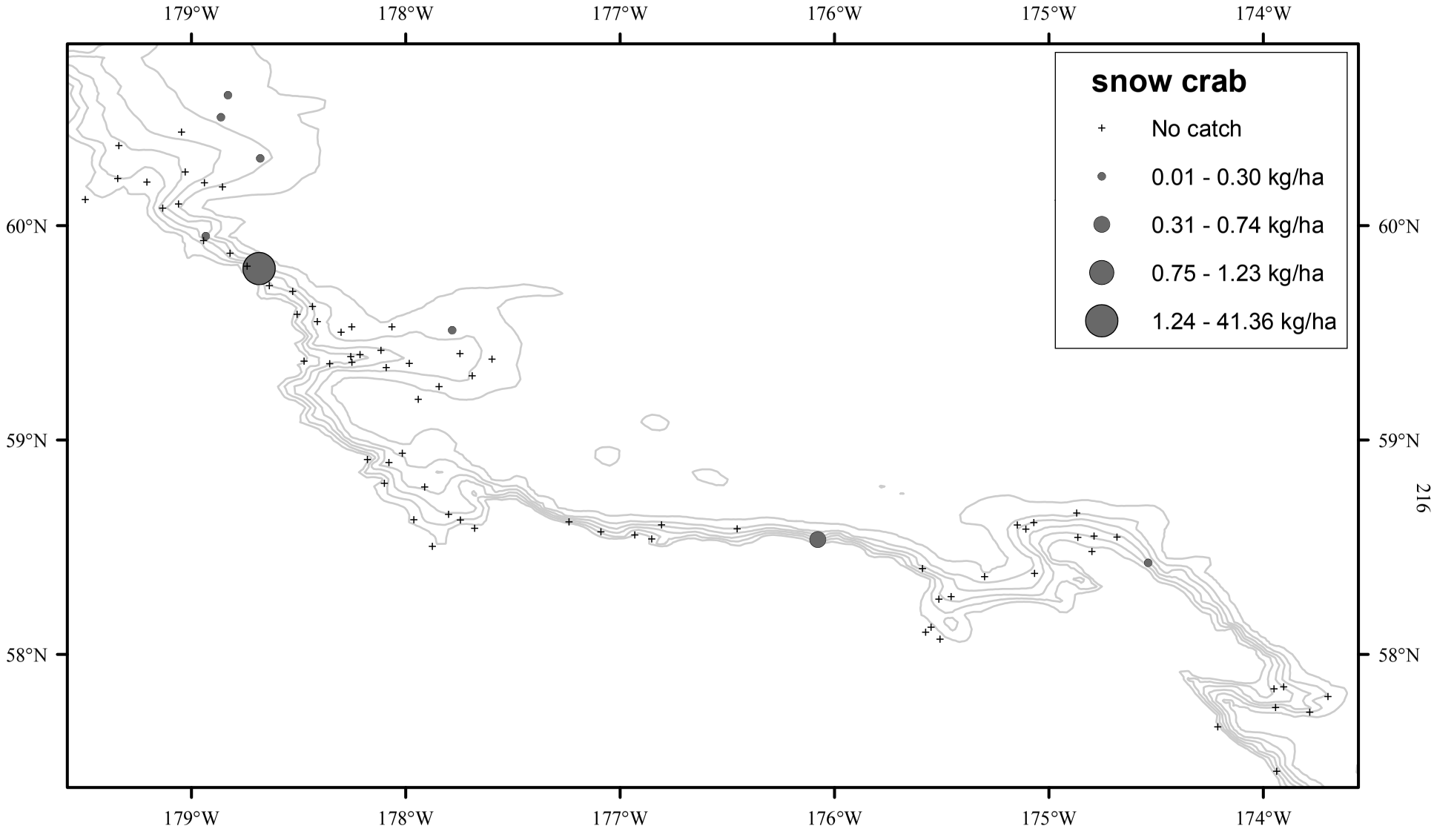




**Figure 78.** - - Distribution and relative abundance of snow crab from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

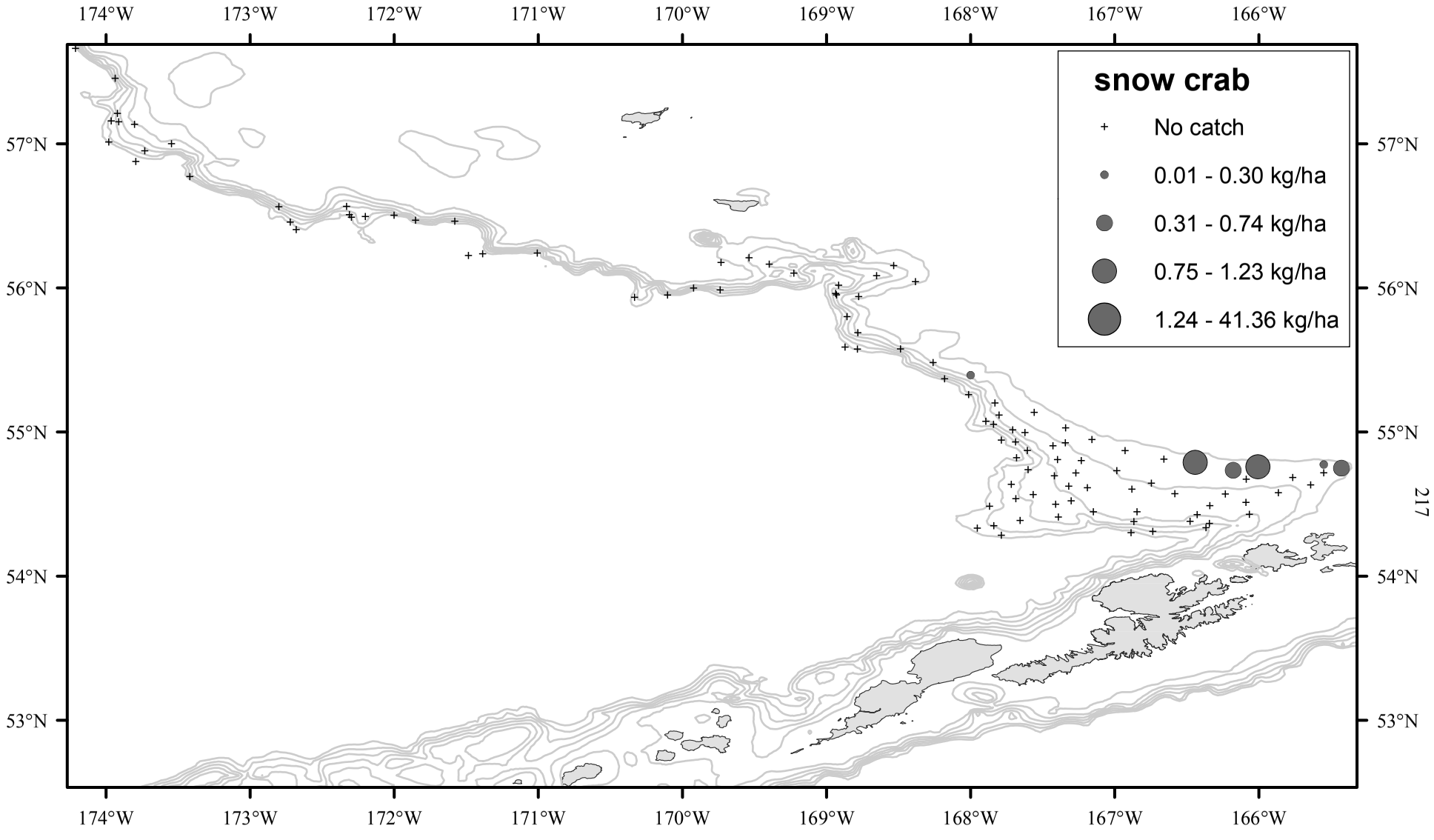


**Figure 78.** - - Continued.

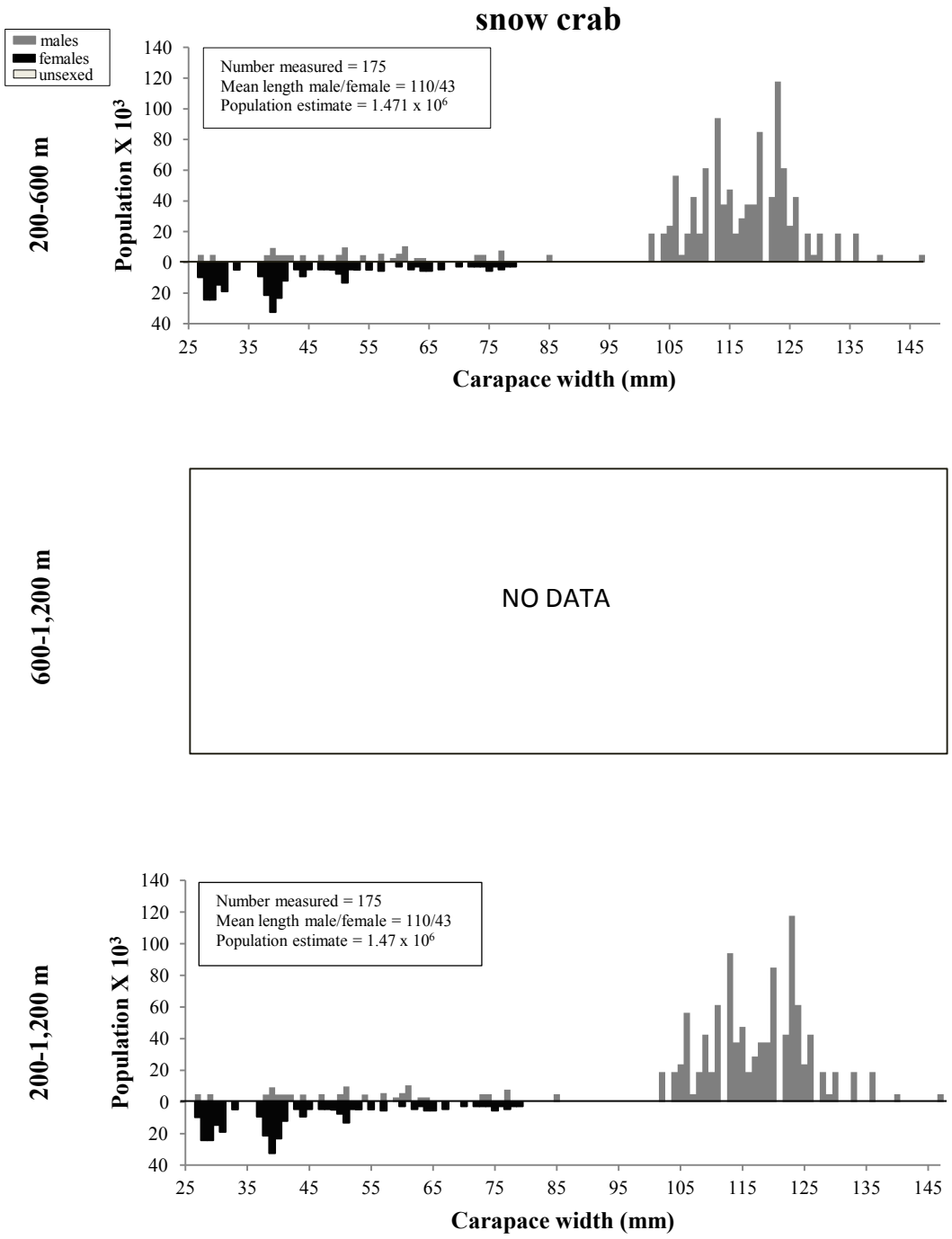


**Figure 79.** - - Size composition of the estimated snow crab population from the 2012 EBSS survey for all subareas by depth.

**Table 47. - -** Abundance estimates by subarea and depth stratum for snow crab (*Chionoecetes opilio* ) from the 2012 EBSS survey.

***Chionoecetes opilio*** **snow crab**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 7.14E+01 | 1.13E+05 | 9.99E+02 | 2.08E+09 | 1.78E-01 | 2.82E-01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 2.62E+00 | 1.36E+05 | 6.89E+00 | 1.85E+10 | 2.12E-02 | 1.10E+00 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | | | | | | |
| | 400-600 | 7.92E+00 | 9.22E+04 | 6.27E+01 | 8.50E+09 | 1.86E-01 | 2.17E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 6.77E+02 | 1.13E+06 | 4.50E+05 | 8.77E+11 | 2.61E+00 | 4.35E+00 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **7.59E+02** | **1.47E+06** | **4.51E+05** | **9.06E+11** | **2.45E-01** | **4.86E-01** |

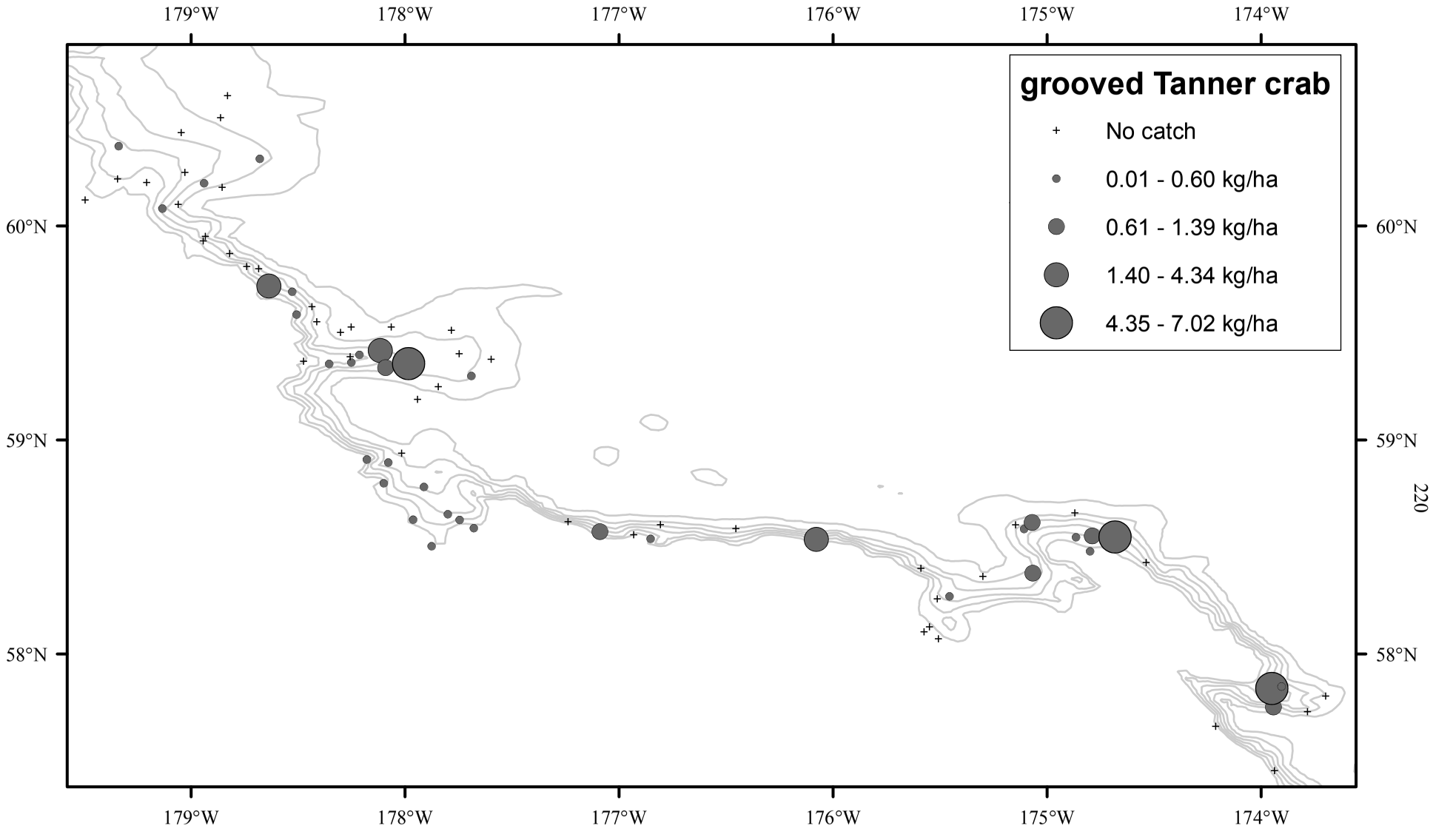


**Figure 80.** - - Distribution and relative abundance of grooved Tanner crab from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

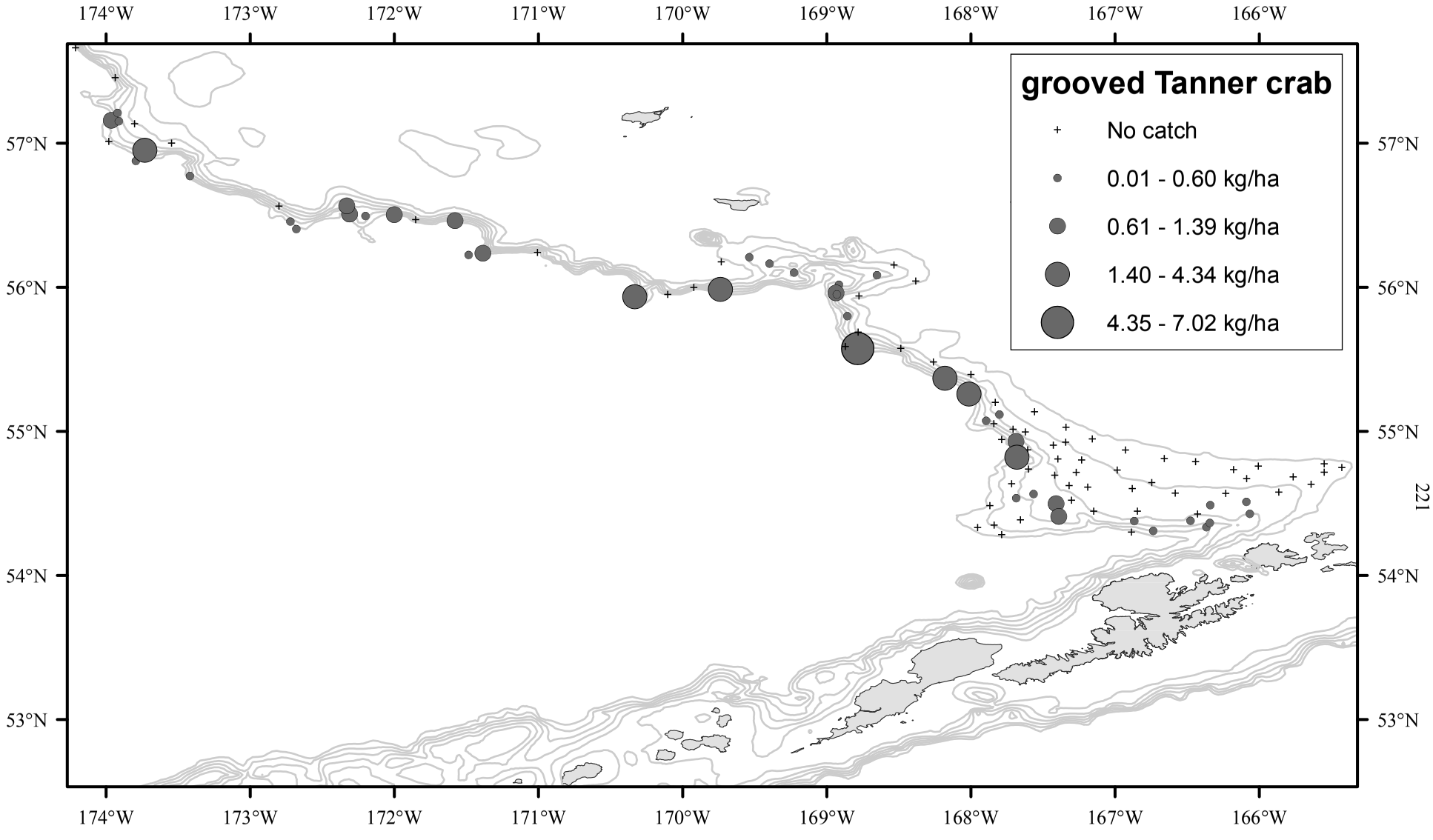


**Figure 80.** - - Continued.

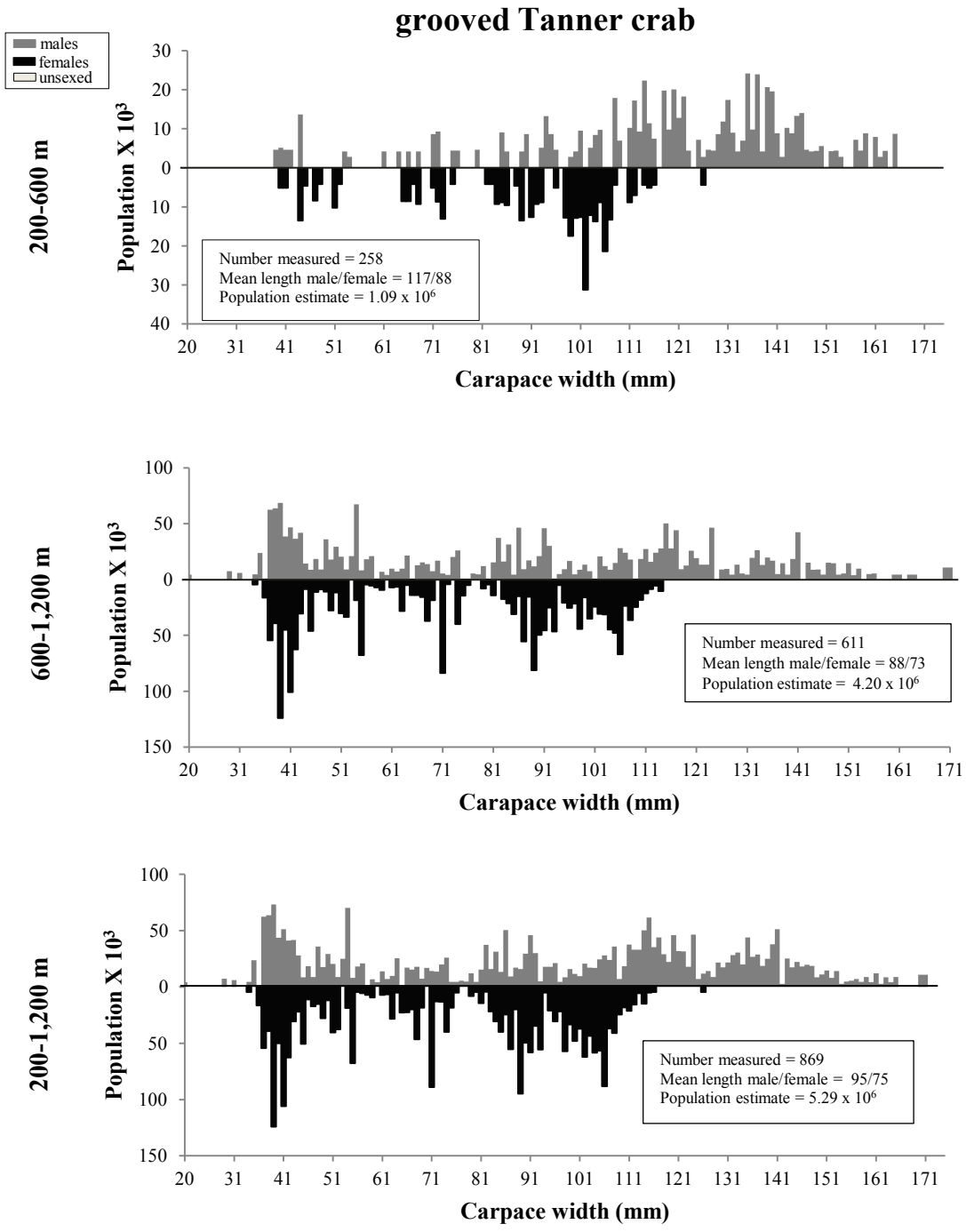


**Figure 81.** - - Size composition of the estimated grooved Tanner crab population from the 2012 EBSS survey for all subareas by depth.

**Table 48. - -** Abundance estimates by subarea and depth stratum for grooved Tanner crab (*Chionoecetes tanneri* ) from the 2012 EBSS survey.

***Chionoecetes tanneri*** **grooved Tanner crab**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | | | | | | |
| | 400-600 | 8.21E+01 | 1.77E+05 | 5.30E+03 | 2.38E+10 | 2.02E-01 | 4.37E-01 |
| | 600-800 | 1.60E+02 | 4.05E+05 | 4.90E+03 | 2.72E+10 | 9.17E-01 | 2.32E+00 |
| | 800-1,000 | 4.61E+00 | 3.30E+04 | 1.74E+01 | 3.16E+08 | 3.40E-02 | 2.43E-01 |
| | 1,000-1,200 | 7.06E+01 | 6.88E+05 | 4.98E+03 | 4.73E+11 | 6.38E-01 | 6.21E+00 |
| 2 | 200-400 | | | | | | |
| | 400-600 | 5.66E+01 | 1.72E+05 | 2.08E+03 | 1.47E+10 | 8.03E-01 | 2.44E+00 |
| | 600-800 | 2.37E+01 | 5.23E+04 | 1.13E+01 | 2.26E+08 | 4.00E-01 | 8.85E-01 |
| | 800-1,000 | 1.86E+02 | 1.19E+06 | 1.10E+04 | 9.10E+11 | 3.37E+00 | 2.16E+01 |
| | 1,000-1,200 | 1.84E+00 | 2.42E+04 | 1.87E+00 | 2.55E+08 | 3.44E-02 | 4.51E-01 |
| 3 | 200-400 | | | | | | |
| | 400-600 | 3.41E+01 | 1.43E+05 | 1.74E+02 | 4.06E+09 | 3.84E-01 | 1.62E+00 |
| | 600-800 | 1.23E+02 | 4.55E+05 | 2.46E+03 | 1.93E+10 | 1.35E+00 | 5.00E+00 |
| | 800-1,000 | 1.66E+01 | 3.61E+05 | 1.67E+02 | 1.26E+11 | 2.26E-01 | 4.93E+00 |
| | 1,000-1,200 | 8.22E+00 | 2.38E+05 | 3.57E+00 | 7.98E+09 | 1.22E-01 | 3.53E+00 |
| 4 | 200-400 | | | | | | |
| | 400-600 | 3.67E+01 | 8.73E+04 | 2.76E+02 | 1.15E+09 | 5.02E-01 | 1.20E+00 |
| | 600-800 | 1.77E+02 | 6.58E+05 | 9.10E+03 | 1.03E+11 | 2.55E+00 | 9.49E+00 |
| | 800-1,000 | 3.69E+01 | 1.78E+05 | 4.71E+02 | 8.03E+09 | 5.21E-01 | 2.52E+00 |
| | 1,000-1,200 | 1.16E+00 | 4.84E+04 | 1.35E+00 | 2.35E+09 | 1.76E-02 | 7.31E-01 |
| 5 | 200-400 | | | | | | |
| | 400-600 | 5.56E+01 | 9.25E+04 | 1.37E+03 | 3.90E+09 | 1.31E+00 | 2.17E+00 |
| | 600-800 | 1.21E+01 | 5.13E+04 | 1.65E+00 | 4.86E+08 | 2.81E-01 | 1.19E+00 |
| | 800-1,000 | 3.64E+00 | 5.28E+04 | 3.98E+00 | 1.06E+09 | 6.60E-02 | 9.57E-01 |
| | 1,000-1,200 | 1.81E+01 | 1.26E+05 | 5.85E+01 | 2.99E+09 | 3.17E-01 | 2.22E+00 |
| 6 | 200-400 | 9.61E+00 | 8.62E+03 | 4.34E+01 | 3.49E+07 | 3.70E-02 | 3.32E-02 |
| | 400-600 | 1.46E+02 | 4.08E+05 | 7.60E+03 | 5.71E+10 | 8.57E-01 | 2.39E+00 |
| | 600-800 | 8.97E+01 | 2.80E+05 | 3.12E+03 | 4.44E+10 | 9.78E-01 | 3.05E+00 |
| | 800-1,000 | 3.12E+00 | 3.00E+04 | 6.48E+00 | 2.17E+08 | 4.83E-02 | 4.65E-01 |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **1.36E+03** | **5.96E+06** | **5.31E+04** | **1.83E+12** | **4.38E-01** | **1.85E+00** |

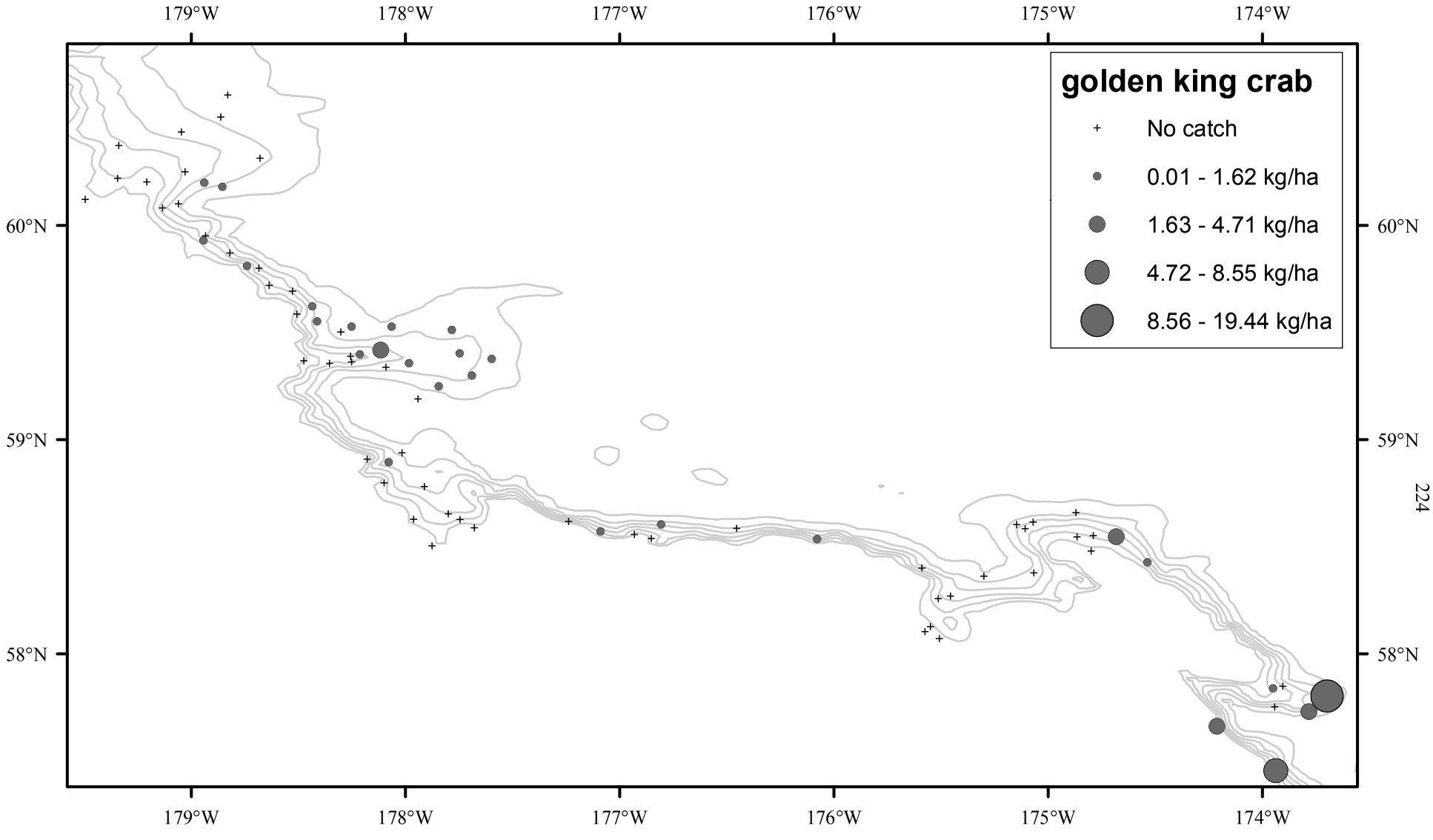


**Figure 82.** - - Distribution and relative abundance of golden king crab from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

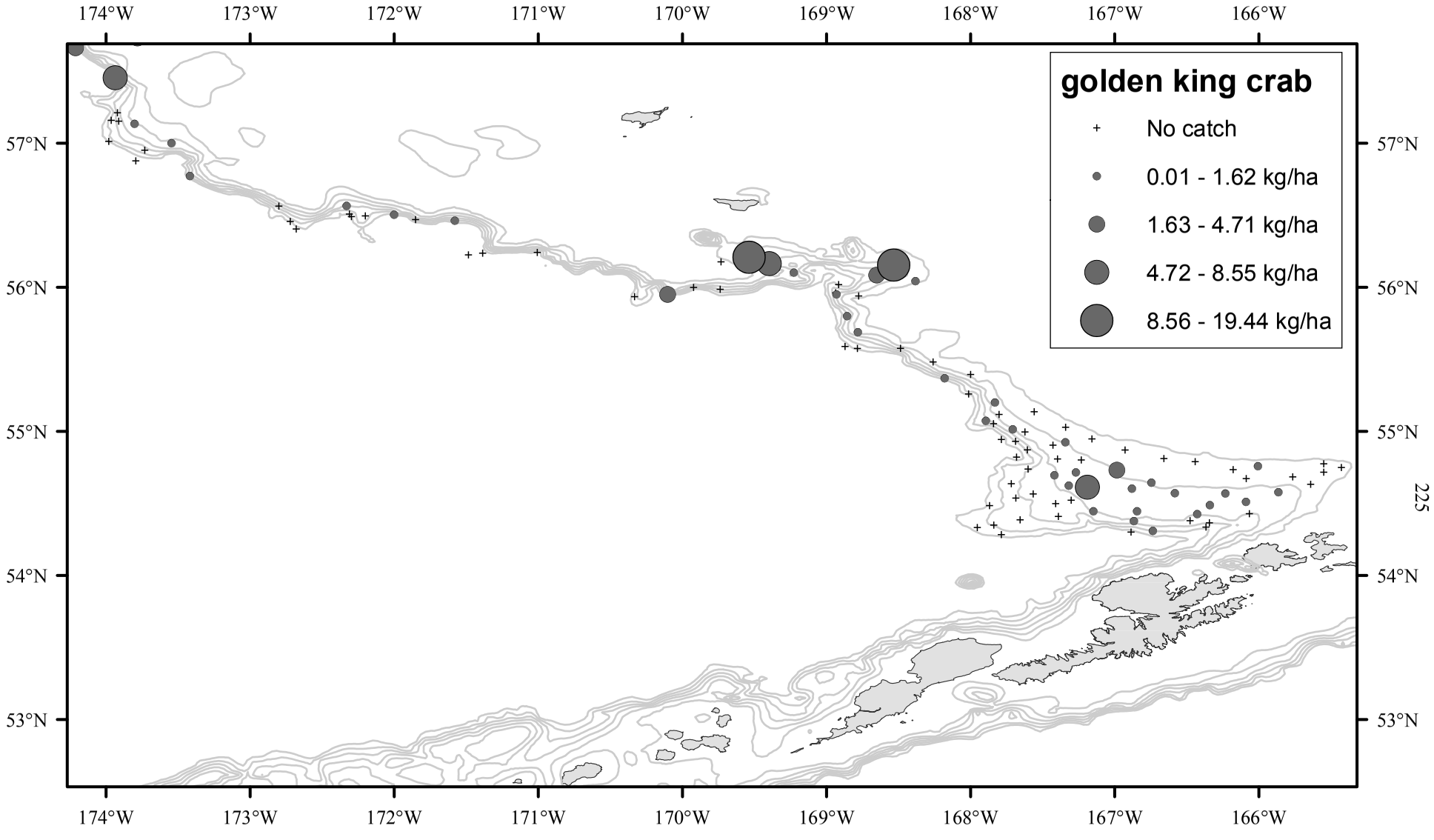




**Figure 82.** - - Continued.

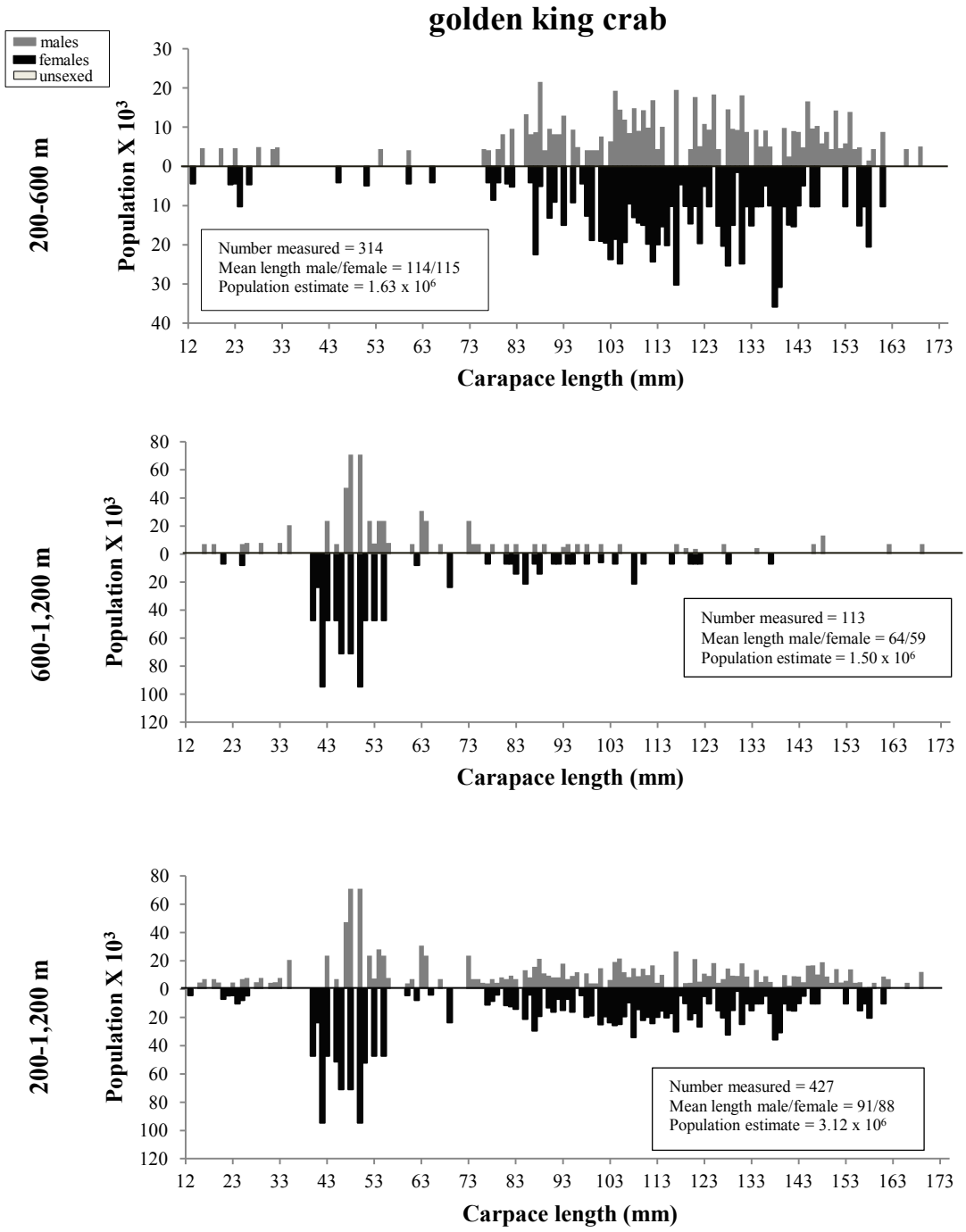


**Figure 83.** - - Size composition of the estimated golden king crab population from the 2012 EBSS survey for all subareas by depth.

**Table 49. - -** Abundance estimates by subarea and depth stratum for golden king crab (*Lithodes aequispinus* ) from the 2012 EBSS survey.

***Lithodes aequispinus*** **golden king crab**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 9.14E+01 | 7.80E+04 | 2.35E+03 | 1.69E+09 | 2.28E-01 | 1.94E-01 |
| | 400-600 | 3.18E+02 | 2.91E+05 | 2.23E+04 | 1.00E+10 | 7.82E-01 | 7.17E-01 |
| | 600-800 | 9.38E+00 | 8.56E+03 | 3.92E+01 | 3.26E+07 | 5.38E-02 | 4.92E-02 |
| | 800-1,000 | 2.34E+00 | 5.10E+03 | 5.45E+00 | 2.60E+07 | 1.72E-02 | 3.76E-02 |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 2.74E+02 | 2.48E+05 | 5.48E+04 | 4.79E+10 | 2.37E+00 | 2.14E+00 |
| | 400-600 | 2.64E+02 | 3.17E+05 | 4.38E+04 | 6.45E+10 | 3.75E+00 | 4.49E+00 |
| | 600-800 | 2.25E+02 | 3.75E+05 | 2.16E+04 | 8.59E+10 | 3.81E+00 | 6.35E+00 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | 1.54E+01 | 1.21E+04 | 2.39E+02 | 1.46E+08 | 2.88E-01 | 2.25E-01 |
| 3 | 200-400 | 1.46E+02 | 1.18E+04 | 1.61E+04 | 1.11E+08 | 1.61E+00 | -9.55E-02 |
| | 400-600 | 2.52E+01 | 3.11E+04 | 2.66E+02 | 1.62E+08 | 2.84E-01 | 3.51E-01 |
| | 600-800 | 7.51E-02 | 4.69E+03 | 5.64E-03 | 2.20E+07 | 8.25E-04 | 5.15E-02 |
| | 800-1,000 | 4.35E-01 | 7.49E+03 | 1.89E-01 | 5.62E+07 | 5.93E-03 | 1.02E-01 |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 4.25E+02 | 3.69E+05 | 1.11E+05 | 7.21E+10 | 3.44E+00 | 2.99E+00 |
| | 400-600 | | | | | | |
| | 600-800 | 6.87E+01 | 1.02E+06 | 4.18E+03 | 1.03E+12 | 9.90E-01 | 1.47E+01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 4.11E+00 | 2.53E+03 | 1.69E+01 | 6.41E+06 | 9.69E-02 | 5.97E-02 |
| | 400-600 | 7.47E+00 | 1.10E+04 | 7.62E+00 | 2.00E+07 | 1.76E-01 | 2.59E-01 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 5.88E+01 | 7.86E+04 | 4.91E+02 | 1.22E+09 | 2.26E-01 | 3.03E-01 |
| | 400-600 | 8.82E+01 | 1.89E+05 | 2.99E+03 | 1.69E+10 | 5.17E-01 | 1.11E+00 |
| | 600-800 | 1.92E+00 | 6.36E+04 | 3.69E+00 | 4.05E+09 | 2.10E-02 | 6.93E-01 |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **2.03E+03** | **3.12E+06** | **2.80E+05** | **1.34E+12** | **5.68E-01** | **1.02E+00** |

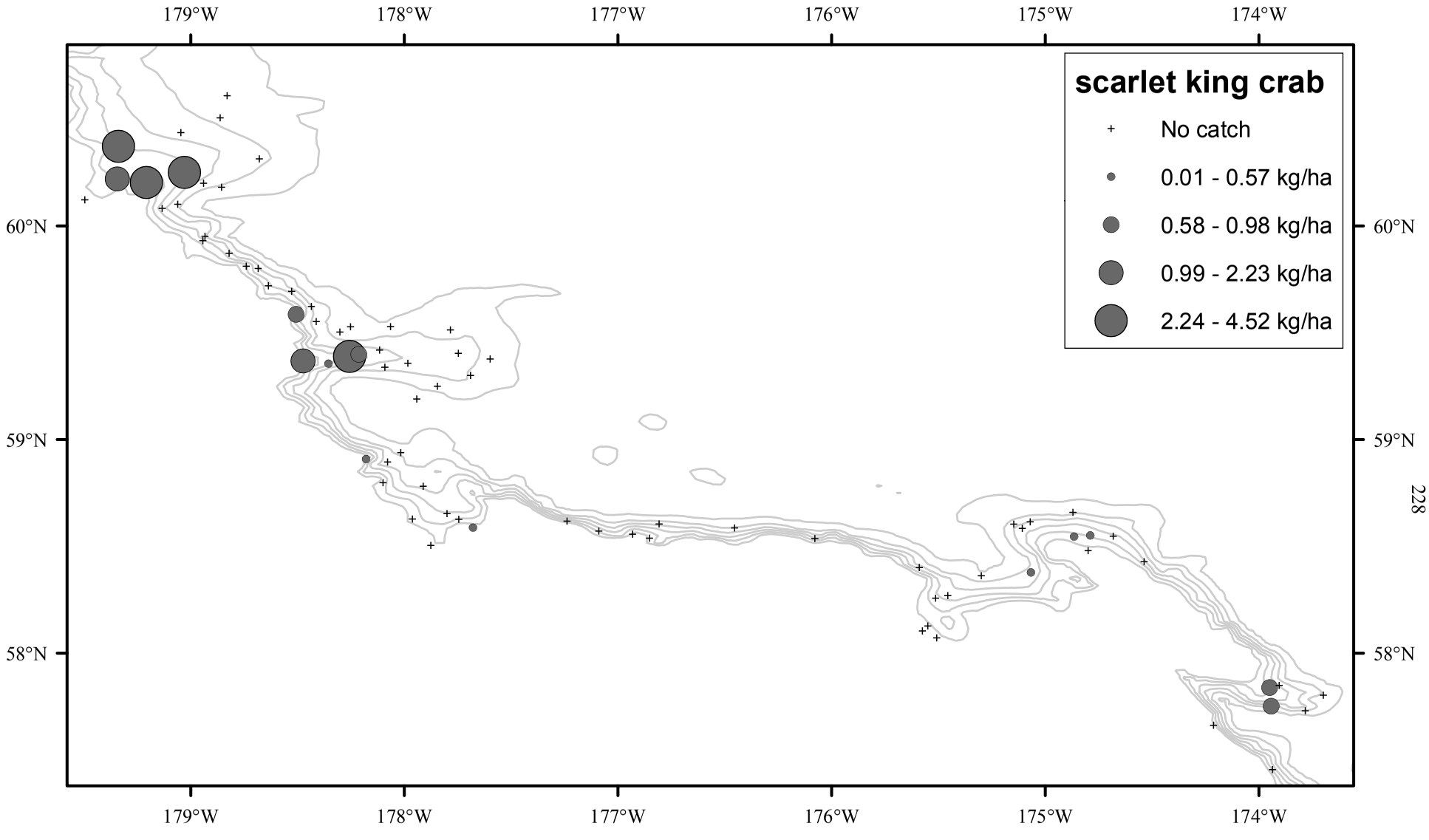


**Figure 84.** - - Distribution and relative abundance of scarlet king crab from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

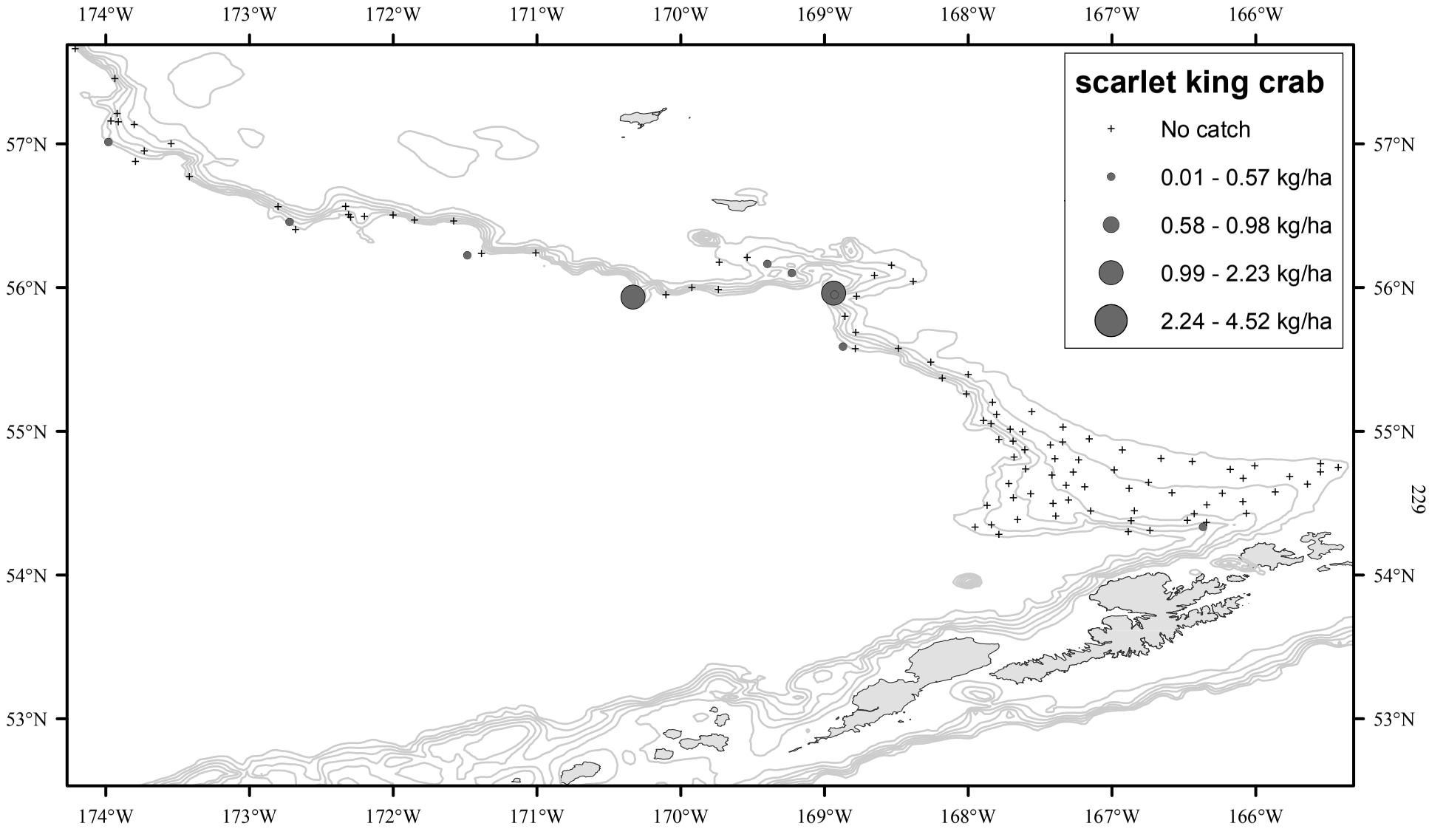




**Figure 84.** - - Continued.

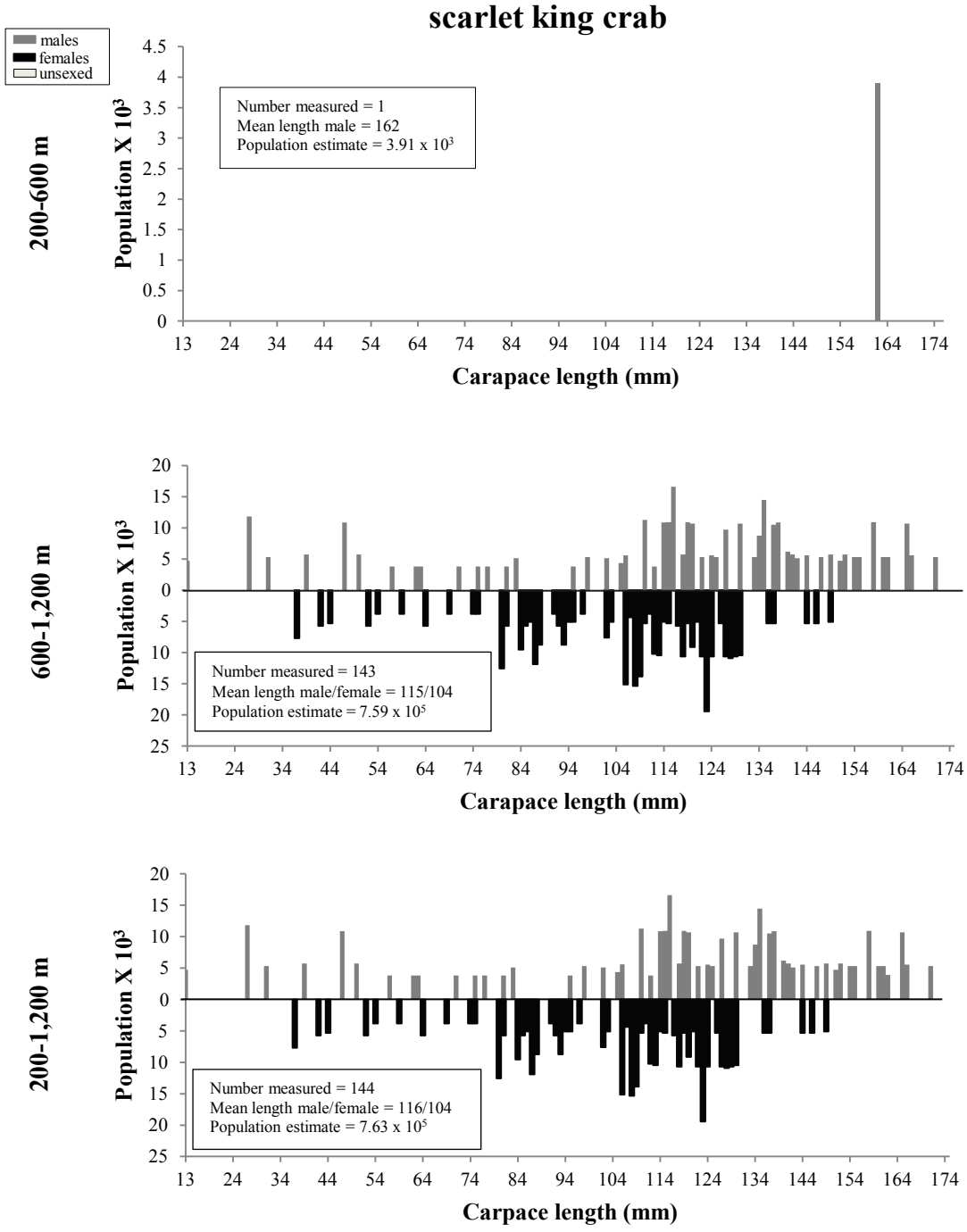


**Figure 85.** - - Size composition of the estimated scarlet king crab population from the 2012 EBSS survey for all subareas by depth.

**Table 50. - -** Abundance estimates by subarea and depth stratum for scarlet king crab (*Lithodes couesi* ) from the 2012 EBSS survey.

***Lithodes couesi*** **scarlet king crab**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 7.94E+00 | 1.31E+04 | 6.30E+01 | 1.71E+08 | 5.86E-02 | 9.66E-02 |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | 1.15E+01 | 1.85E+04 | 3.40E+01 | 1.41E+08 | 1.94E-01 | 3.13E-01 |
| | 800-1,000 | 6.80E+01 | 1.38E+05 | 1.30E+03 | 6.30E+09 | 1.23E+00 | 2.50E+00 |
| | 1,000-1,200 | 1.22E+01 | 1.68E+04 | 8.89E+01 | 1.11E+08 | 2.28E-01 | 3.13E-01 |
| 3 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | 2.49E-02 | 4.15E+03 | 6.19E-04 | 1.72E+07 | 2.73E-04 | 4.55E-02 |
| | 800-1,000 | 7.84E+00 | 1.41E+04 | 3.28E+01 | 8.23E+07 | 1.07E-01 | 1.93E-01 |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | | | | | | |
| | 400-600 | 6.88E+00 | 3.91E+03 | 4.73E+01 | 1.53E+07 | 9.41E-02 | 5.35E-02 |
| | 600-800 | 9.97E+00 | 8.37E+04 | 7.49E+01 | 2.65E+09 | 1.44E-01 | 1.21E+00 |
| | 800-1,000 | 3.26E+01 | 6.12E+04 | 3.46E+02 | 1.31E+09 | 4.60E-01 | 8.66E-01 |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | 8.28E+00 | 1.03E+04 | 6.86E+01 | 1.07E+08 | 1.50E-01 | 1.87E-01 |
| | 1,000-1,200 | 1.39E-01 | 1.54E+04 | 1.92E-02 | 2.37E+08 | 2.43E-03 | 2.70E-01 |
| 6 | 200-400 | | | | | | |
| | 400-600 | | | | | | |
| | 600-800 | 1.85E+02 | 2.19E+05 | 5.31E+03 | 8.14E+09 | 2.02E+00 | 2.38E+00 |
| | 800-1,000 | 4.18E+01 | 3.90E+04 | 3.19E+02 | 4.09E+08 | 6.47E-01 | 6.04E-01 |
| | 1,000-1,200 | 7.15E+01 | 1.26E+05 | 1.54E+03 | 5.20E+09 | 1.44E+00 | 2.54E+00 |
| **1-6** | **200-1,200** | **4.64E+02** | **7.63E+05** | **9.23E+03** | **2.49E+10** | **1.47E-01** | **2.42E-01** |

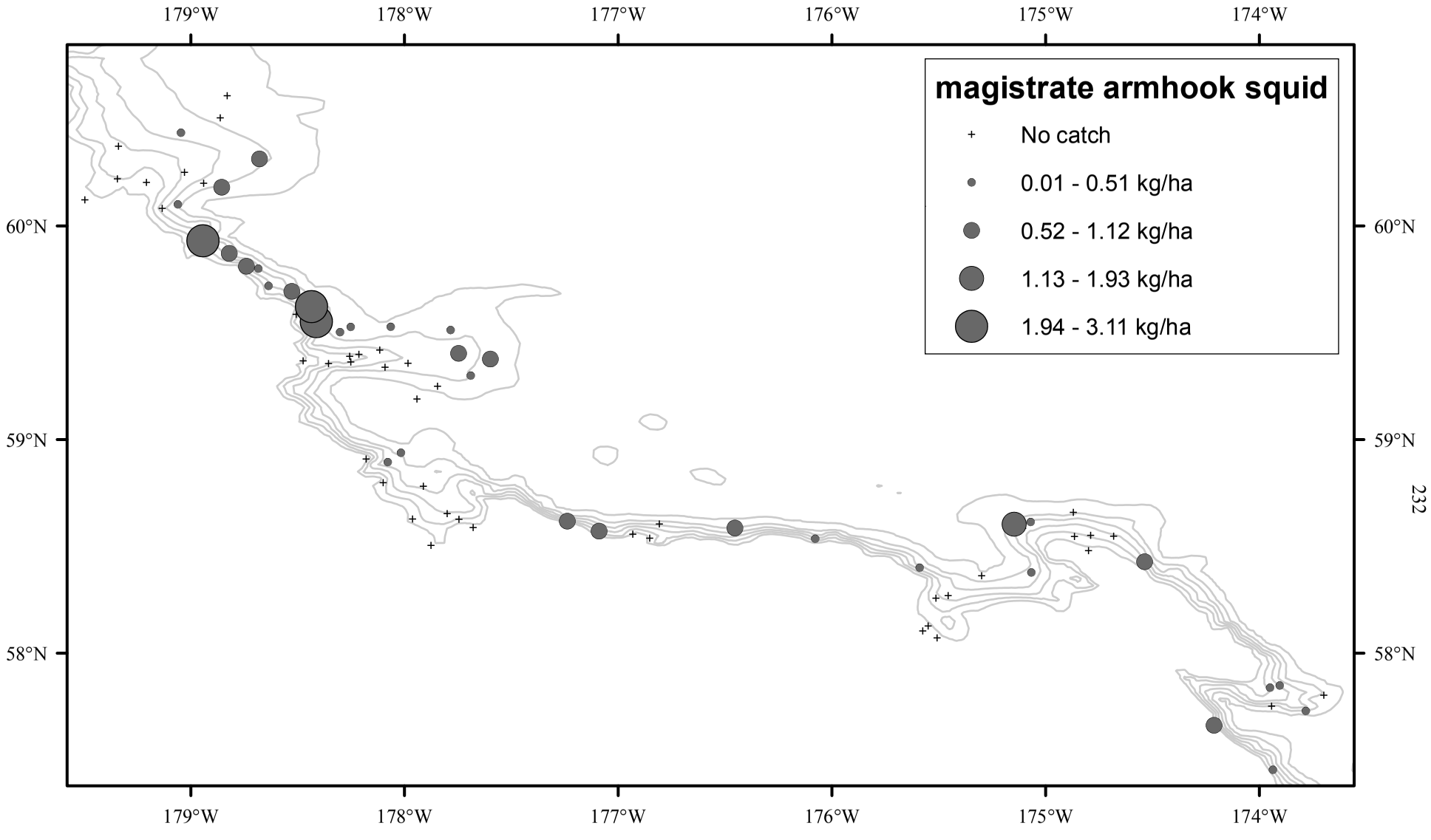




**Figure 86.** - - Distribution and relative abundance of magistrate armhook squid from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

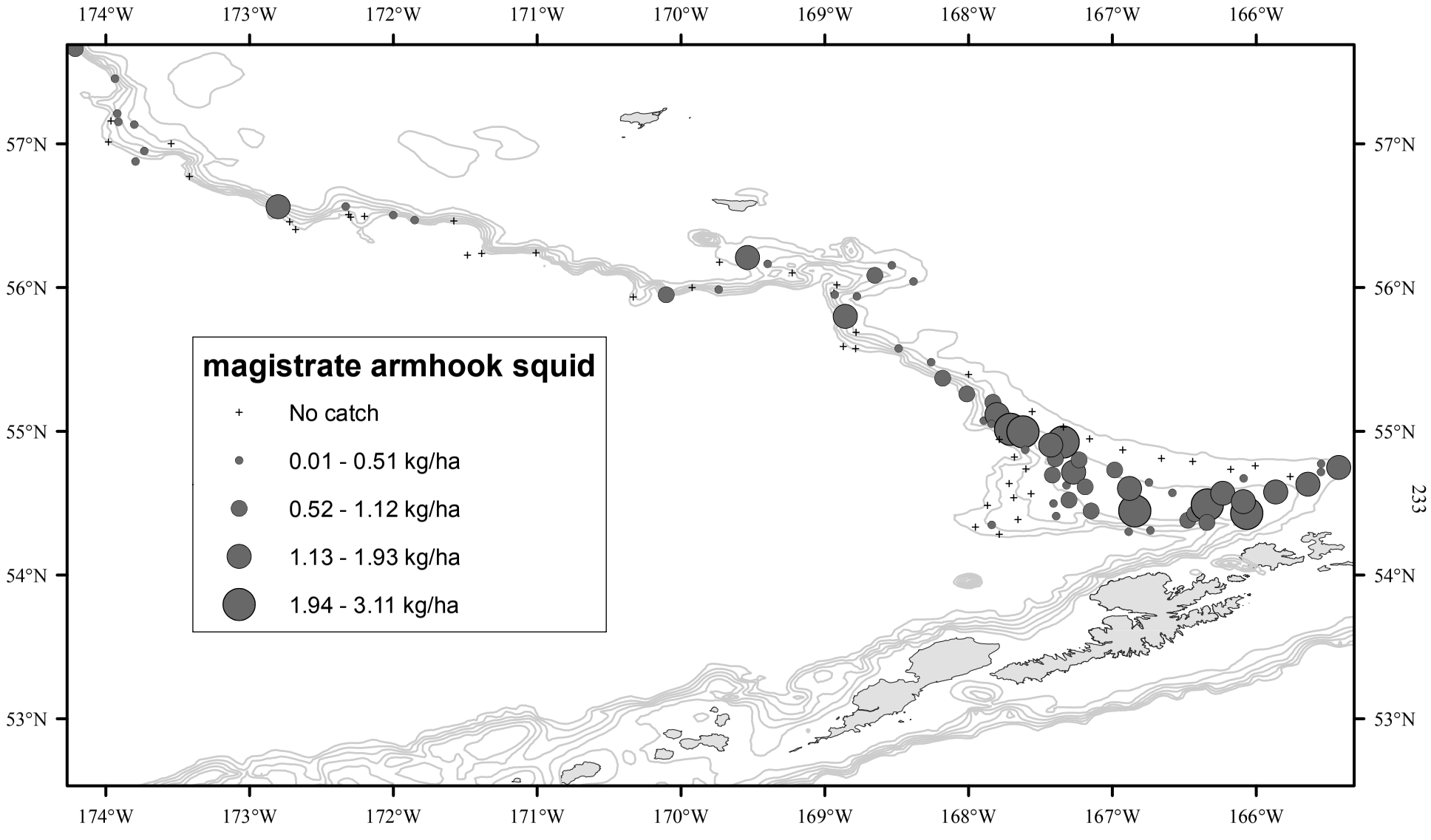


**Figure 86.** - - Continued.

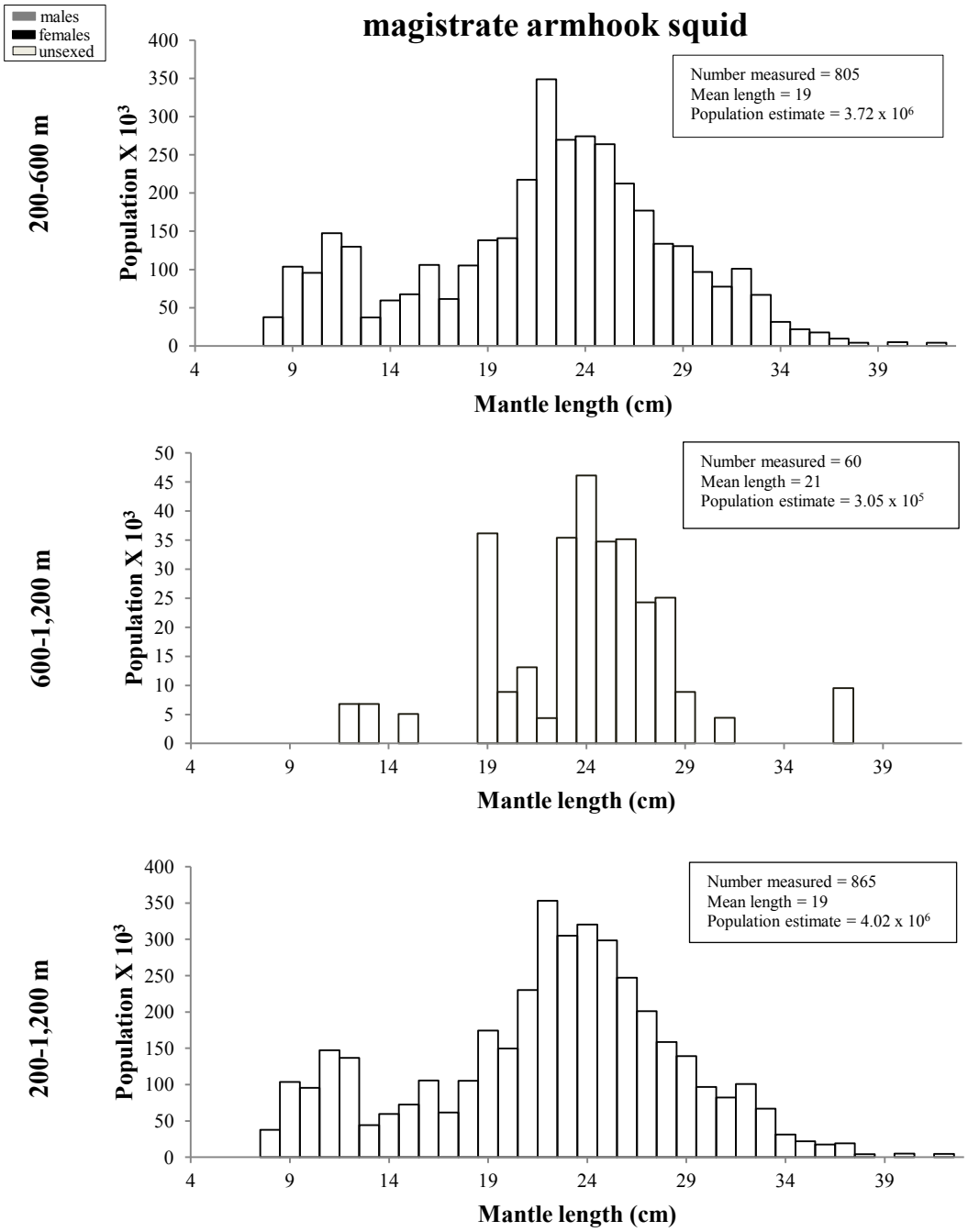


**Figure 87.** - - Size composition of the estimated magistrate armhook squid population from the 2012 EBSS survey for all subareas by depth.

**Table 51. - -** Abundance estimates by subarea and depth stratum for magistrate armhook squid (*Berryteuthis magister* ) from the 2012 EBSS survey.

| ***Berryteuthis magister*** | | | | | | **magistrate armhook squid** | |
|---|---|---|---|---|---|---|---|
| **Subarea** | **Depth stratum (m)** | **Biomass (t)** | **Population** | **Biomass variance** | **Population variance** | **Average CPUE (kg/ha)** | **Average CPUE (no./ha)** |
| | **200-400** | 1.73E+02 | 5.98E+05 | 3.42E+03 | 3.81E+10 | 4.32E-01 | 1.49E+00 |
| | **400-600** | 5.41E+02 | 1.39E+06 | 3.50E+03 | 4.91E+10 | 1.33E+00 | 3.42E+00 |
| **1** | **600-800** | 6.31E+01 | 1.62E+05 | 3.21E+02 | 2.12E+09 | 3.62E-01 | 9.29E-01 |
| | **800-1,000** | 9.82E+00 | 2.48E+04 | 6.72E+01 | 4.05E+08 | 7.25E-02 | 1.83E-01 |
| | **1,000-1,200** | 2.25E+00 | 4.29E+03 | 5.04E+00 | 1.84E+07 | 2.03E-02 | 3.87E-02 |
| | **200-400** | 1.99E+01 | 9.63E+04 | 9.79E+01 | 2.74E+09 | 1.72E-01 | 8.32E-01 |
| | **400-600** | 6.26E+01 | 2.12E+05 | 5.05E+02 | 8.01E+09 | 8.88E-01 | 3.01E+00 |
| **2** | **600-800** | 2.11E+01 | 8.02E+04 | 8.22E+01 | 1.11E+09 | 3.57E-01 | 1.36E+00 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 3.57E+01 | 1.09E+05 | 3.98E+02 | 1.61E+09 | 3.95E-01 | 1.21E+00 |
| | **400-600** | 7.73E+00 | 2.43E+04 | 1.39E+01 | 1.23E+08 | 8.72E-02 | 2.74E-01 |
| **3** | **600-800** | 3.98E+00 | 1.38E+04 | 9.81E+00 | 8.32E+07 | 4.38E-02 | 1.51E-01 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | 8.16E-01 | 4.48E+03 | 6.66E-01 | 2.01E+07 | 1.21E-02 | 6.64E-02 |
| | **200-400** | 2.96E+01 | 8.91E+04 | 2.87E+02 | 2.77E+09 | 2.40E-01 | 7.20E-01 |
| | **400-600** | 3.64E+01 | 1.75E+05 | 4.79E+02 | 1.73E+10 | 4.99E-01 | 2.40E+00 |
| **4** | **600-800** | 1.30E+00 | 3.88E+03 | 1.70E+00 | 1.50E+07 | 1.88E-02 | 5.59E-02 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 1.41E+01 | 3.40E+04 | 3.87E+01 | 1.44E+08 | 3.34E-01 | 8.03E-01 |
| | **400-600** | 1.66E+01 | 5.79E+04 | 6.21E+01 | 9.93E+08 | 3.90E-01 | 1.36E+00 |
| **5** | **600-800** | | | | | | |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| | **200-400** | 1.25E+02 | 5.16E+05 | 1.90E+03 | 5.76E+10 | 4.83E-01 | 1.99E+00 |
| | **400-600** | 1.15E+02 | 4.21E+05 | 2.78E+03 | 5.84E+10 | 6.73E-01 | 2.47E+00 |
| **6** | **600-800** | 3.67E+00 | 1.16E+04 | 1.34E+01 | 1.35E+08 | 4.00E-02 | 1.26E-01 |
| | **800-1,000** | | | | | | |
| | **1,000-1,200** | | | | | | |
| **1-6** | **200-1,200** | **1.28E+03** | **4.03E+06** | **1.40E+04** | **2.41E+11** | **3.96E-01** | **1.25E+00** |

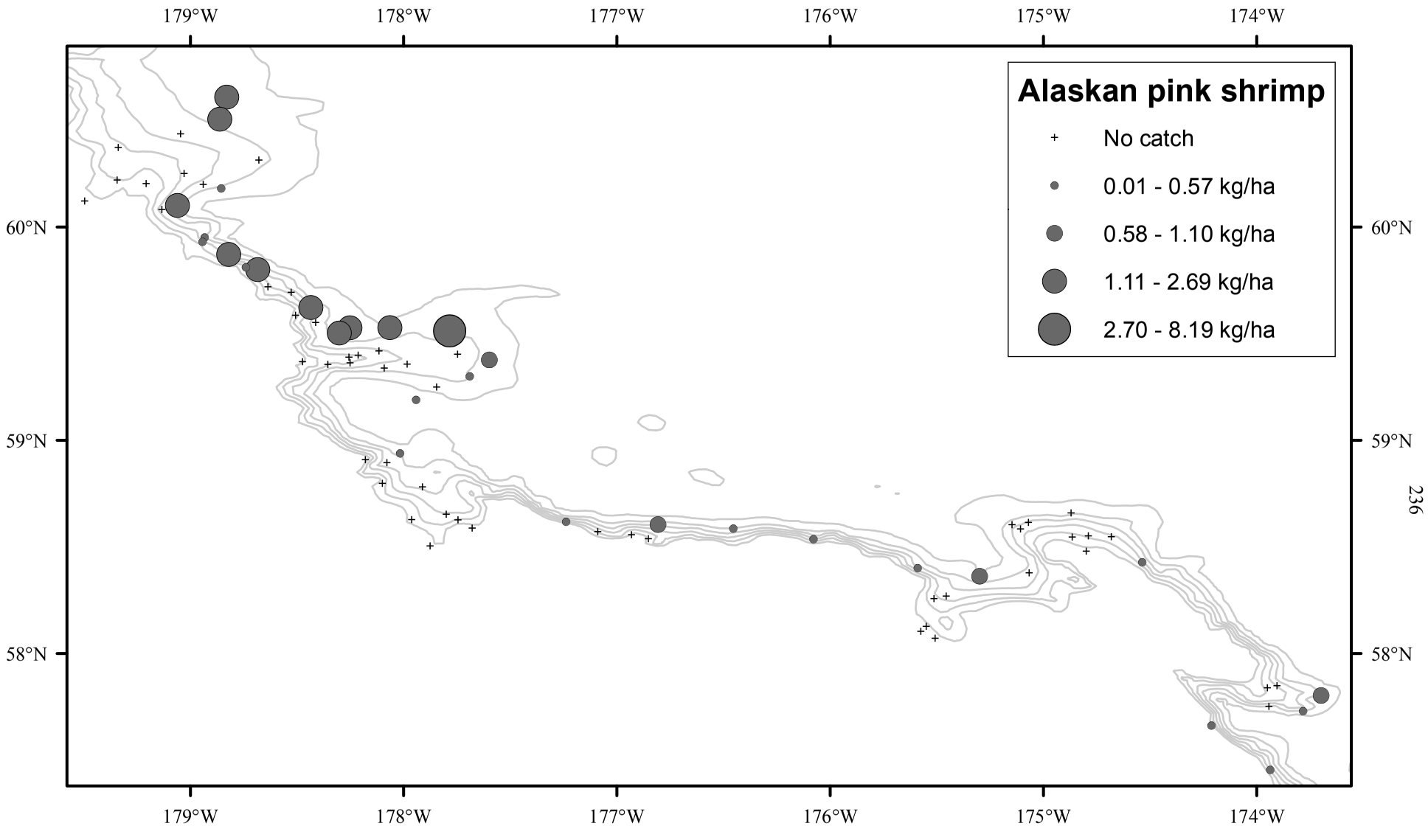




**Figure 88.** - - Distribution and relative abundance of Alaskan pink shrimp from the 2012 EBSS survey. Values are in ranges of CPUE (kg/ha).

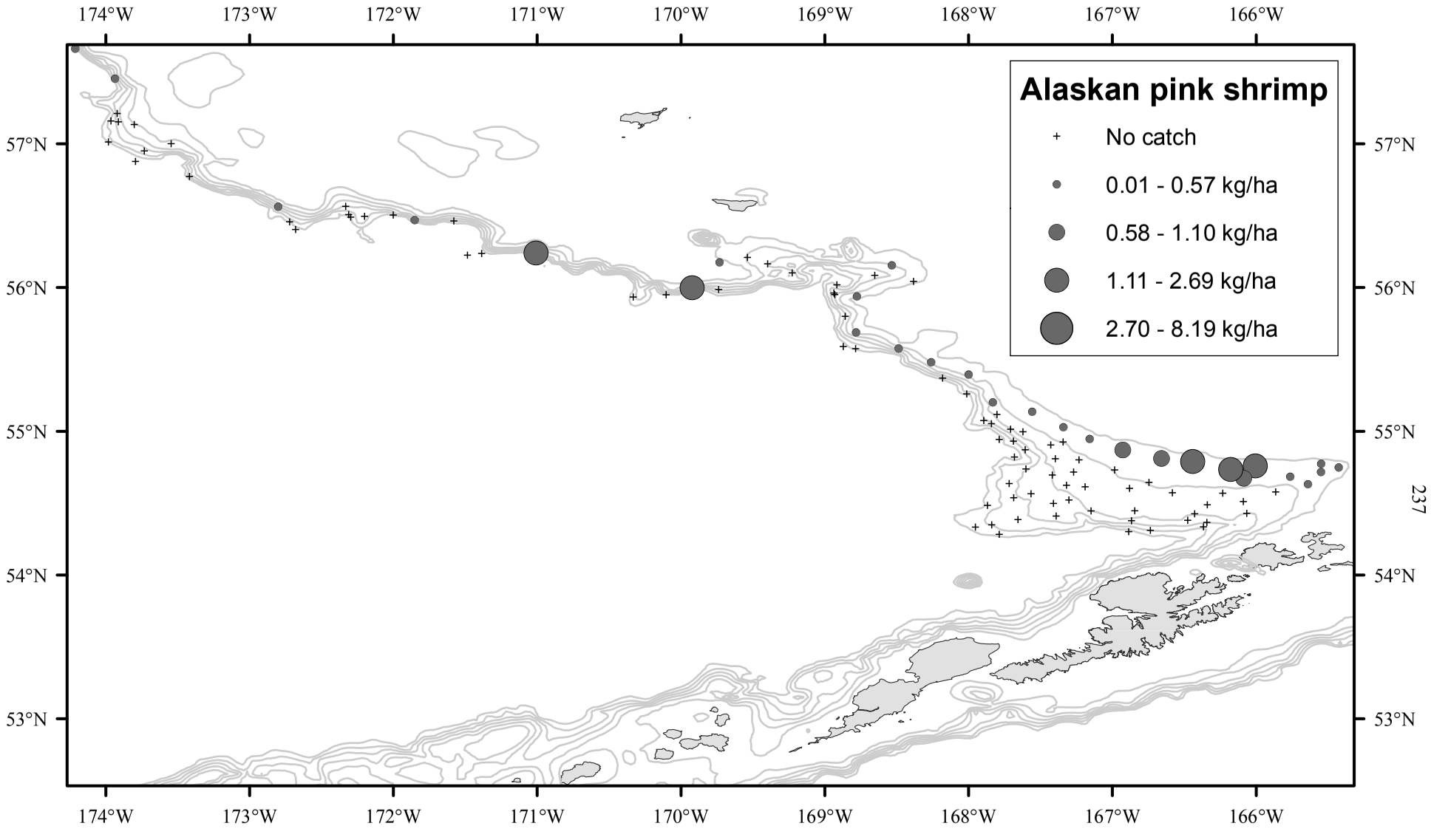




**Figure 88.** - - Continued.

**Table 52. - -** Abundance estimates by subarea and depth stratum for Alaskan shrimp (*Pandalus eous* ) from the 2012 EBSS survey.

***Pandalus eous*** **Alaskan pink shrimp**

| Subarea | Depth stratum (m) | Biomass (t) | Population | Biomass variance | Population variance | Average CPUE (kg/ha) | Average CPUE (no./ha) |
|---|---|---|---|---|---|---|---|
| 1 | 200-400 | 2.20E+02 | 4.34E+07 | 2.68E+03 | 9.99E+13 | 5.47E-01 | 1.08E+02 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 2 | 200-400 | 5.54E+01 | 1.34E+07 | 1.02E+03 | 6.05E+13 | 4.78E-01 | 1.15E+02 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 3 | 200-400 | 3.72E+01 | 8.72E+06 | 6.70E+02 | 3.96E+13 | 4.11E-01 | 9.64E+01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 4 | 200-400 | 4.77E+01 | 8.06E+06 | 4.27E+02 | 1.57E+13 | 3.86E-01 | 6.52E+01 |
| | 400-600 | | | | | | |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 5 | 200-400 | 1.93E+01 | 2.54E+06 | 7.07E+01 | 1.32E+12 | 4.55E-01 | 6.00E+01 |
| | 400-600 | 6.70E-01 | 1.12E+05 | 4.49E-01 | 1.25E+10 | 1.57E-02 | 2.62E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| 6 | 200-400 | 4.34E+02 | 8.94E+07 | 1.59E+04 | 1.88E+15 | 1.67E+00 | 3.45E+02 |
| | 400-600 | 5.90E+00 | 6.04E+05 | 2.49E+01 | 2.70E+11 | 3.46E-02 | 3.54E+00 |
| | 600-800 | | | | | | |
| | 800-1,000 | | | | | | |
| | 1,000-1,200 | | | | | | |
| **1-6** | **200-1,200** | **8.20E+02** | **1.66E+08** | **2.08E+04** | **2.09E+15** | **2.55E-01** | **5.14E+01** |

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# APPENDICES

## Haul log

The haul log details the location, depth, time, temperature and net mensuration parameters of each haul conducted during the 2012 EBSS survey as well as each haul's catch by weight (kg), with a breakdown of the species composition and the individual species weight or a grouped weight for less abundant species. Appendix A describes the trawl warp/bottom depth scope ratio used for each trawl. Appendix B lists the number of hauls completed by trawl performance code during the survey. Zero and positive performance codes are considered successful tows and were used for the standard abundance estimates, while negative performance tows were not included in abundance calculations. Appendix C is the detailed haul log for every haul completed with data during the survey. For quick reference, the unsuccessful tows not used for abundance estimates are shaded in gray.

**Appendix A.** - - Scope ratio table used during the 2012 EBSS survey.

| Bottom depth | | Warp length | |
|---|---|---|---|
| **Minimum (m)** | **Maximum (m)** | **Meters** | **Fathoms** |
| 146 | 176 | 550 | 301 |
| 177 | 206 | 600 | 328 |
| 207 | 237 | 650 | 355 |
| 238 | 267 | 700 | 383 |
| 269 | 298 | 750 | 410 |
| 299 | 328 | 800 | 437 |
| 330 | 358 | 850 | 465 |
| 360 | 389 | 900 | 492 |
| 390 | 420 | 950 | 519 |
| 421 | 450 | 1000 | 547 |
| 451 | 481 | 1050 | 574 |
| 482 | 511 | 1100 | 601 |
| 512 | 542 | 1150 | 628 |
| 543 | 572 | 1200 | 656 |
| 573 | 603 | 1250 | 683 |
| 604 | 633 | 1300 | 710 |
| 634 | 664 | 1350 | 738 |
| 665 | 694 | 1400 | 765 |
| 695 | 725 | 1450 | 792 |
| 726 | 755 | 1500 | 820 |
| 756 | 786 | 1550 | 847 |
| 787 | 816 | 1600 | 874 |
| 817 | 847 | 1650 | 901 |
| 848 | 877 | 1700 | 930 |
| 878 | 908 | 1750 | 957 |
| 909 | 938 | 1800 | 984 |
| 939 | 969 | 1850 | 1012 |
| 970 | 999 | 1900 | 1039 |
| 1000 | 1030 | 1950 | 1066 |
| 1031 | 1060 | 2000 | 1094 |
| 1061 | 1091 | 2050 | 1121 |
| 1091 | 1121 | 2100 | 1148 |
| 1122 | 1152 | 2150 | 1176 |
| 1152 | 1182 | 2200 | 1203 |
| 1183 | 1213 | 2250 | 1230 |
| 1213 | 1243 | 2300 | 1258 |
| 1244 | 1274 | 2350 | 1285 |

**Appendix B.** - - Performance codes assigned to trawl hauls conducted on the 2012 EBSS survey. Performance codes zero or greater are considered successful hauls, and codes less than zero are unsuccessful hauls.

| Performance code | Description | Number of hauls |
|---|---|---|
| 6.1 | Satisfactory performance, depth change exceeds limits | 2 |
| 6.0 | Satisfactory performance, unspecified problem | 1 |
| 5.2 | Satisfactory performance, net improperly configured, unspecified reason | 1 |
| 5.1 | Satisfactory performance, net came off bottom | 3 |
| 5.0 | Satisfactory performance, unspecified gear performance problem | 1 |
| 4.4 | Satisfactory performance, large fish catch affected net performance | 2 |
| 4.2 | Satisfactory performance, caught large quantity of mud | 1 |
| 4.1 | Satisfactory performance, caught large rock | 4 |
| 3.3 | Satisfactory performance, caught trawl gear | 1 |
| 3.2 | Satisfactory performance, caught longline gear | 1 |
| 3.13 | Satisfactory performance, caught Alaskan crab pot | 1 |
| 2.4 | Satisfactory performance, belly damage | 2 |
| 1.12 | Satisfactory performance, hauled back early due to hangs | 1 |
| 0.00 | Good performance | 168 |
| -1.12 | Unsatisfactory performance, hauled back early due to hang(s) | 1 |
| -2.4 | Unsatisfactory performance, belly damaged | 2 |
| -5.0 | Unsatisfactory performance, unspecified gear performance problem | 3 |
| | | |
| | | |

Appendix C. - - Haul log.

| Haul | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 08-JUN-12 | 08-JUN-12 | 08-JUN-12 | 08-JUN-12 | 09-JUN-12 | 09-JUN-12 | 09-JUN-12 | 09-JUN-12 |
| Start latitude (N) | 54.7749 | 54.7491 | 54.7171 | 54.6325 | 54.3804 | 54.4265 | 54.3357 | 54.2637 |
| Start longitude (W) | -165.5492 | -165.4269 | -165.5494 | -165.6407 | -166.4769 | -166.4278 | -166.3667 | -166.7018 |
| End latitude (N) | 54.7713 | 54.7300 | 54.7058 | 54.6112 | 54.3782 | 54.4280 | 54.3348 | 54.2618 |
| End longitude (W) | -165.5870 | -165.4094 | -165.5173 | -165.6403 | -166.5125 | -166.4649 | -166.3272 | -166.6752 |
| Stratum | 11 | 11 | 11 | 11 | 13 | 12 | 14 | 15 |
| Station ID | 11-43 | 11-03 | 11-02 | 11-15 | 13-02 | 12-30 | 14-12 | 15-02 |
| Duration (hour) | 0.54 | 0.50 | 0.52 | 0.51 | 0.53 | 0.52 | 0.54 | |
| Distance fished (km) | 2.47 | 2.41 | 2.43 | 2.36 | 2.34 | 2.42 | 2.60 | |
| Net width (m) | 15.38 | 15.05 | 14.96 | 14.66 | 17.29 | 16.72 | 17.08 | |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -2.40 |
| Bottom depth (m) | 206 | 208 | 257 | 330 | 613 | 555 | 839 | 1108 |
| Surface temperature (°C) | 4.3 | 4.2 | 4.4 | 5.5 | 5 | 3.5 | 4.6 | 5.3 |
| Bottom temperature (°C) | 3 | 3.3 | 3 | 3.1 | 3.4 | 3.5 | 2.9 | 2.7 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | 21.73 | 9.90 | 3.70 | | 2.12 | 9.74 | | |
| mud skate | | | | 1.61 | | | | |
| roughtail skate | | | | | | | 6.18 | |
| Alaska skate | 20.09 | 5.34 | 7.52 | | | | | |
| Aleutian skate | 83.12 | 33.40 | 21.48 | 1.15 | 8.06 | 5.63 | 0.10 | |
| Commander skate | | | | | | 4.38 | | |
| whiteblotched skate | | | | 8.68 | | | | |
| whitebrow skate | | | 3.04 | | 2.08 | 1.69 | | |
| other elasmobranchs & eggs | 0.26 | | 0.17 | 0.79 | 0.09 | 0.14 | 0.03 | |
| arrowtooth flounder | 17.32 | 48.88 | 67.26 | 284.62 | 7.42 | 21.98 | | |
| Kamchatka flounder | 3.04 | 1.12 | 4.18 | 1.40 | 52.80 | 71.82 | 7.54 | |
| Greenland turbot | | | | | 6.06 | 30.36 | 35.36 | |
| Pacific halibut | 6.80 | | 6.83 | 23.45 | | | | |
| flathead sole | 0.73 | 11.55 | 21.34 | 78.18 | | 3.94 | | |
| rex sole | 3.54 | 16.88 | 142.86 | 57.02 | | | | |
| other flatfishes | 0.00 | 13.98 | 7.45 | 3.95 | | | | |
| sablefish | | | | | 41.48 | 32.00 | 41.88 | |
| Other fishes | 0.60 | 4.51 | 0.24 | | | 0.30 | | |
| poachers | 3.09 | 1.14 | 1.76 | 0.19 | 0.10 | 0.10 | 0.15 | |
| mesopelagic fishes | | | | 0.07 | 0.33 | 0.15 | 2.34 | |
| blacktail snailfish | | | | | | | 3.71 | |
| other snailfishes | 8.53 | 3.19 | 2.20 | 1.57 | | 0.02 | 1.36 | |
| Pacific grenadier | | | | | | | | |
| giant grenadier | | | | | 263.66 | 137.52 | 187.10 | |
| popeye grenadier | | | | | 3.04 | | 275.64 | |
| Pacific cod | 25.54 | 5.02 | 3.80 | 1.54 | | | | |
| walleye pollock | 98.01 | 178.04 | 86.46 | 41.44 | | 1.22 | | |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | | 0.21 | 0.53 | | | 0.02 | |
| spinyhead sculpin | | | | 1.00 | 0.09 | 0.15 | | |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | | | | | | | | |
| other sculpins | 0.03 | 1.99 | | | 0.002 | | | |
| twoline eelpout | | | | | | | 7.13 | |
| western eelpout | | | | | 36.48 | 137.28 | 32.65 | |
| ebony eelpout | | | | | 0.23 | 1.56 | | |
| Bering eelpout | | | | | 0.01 | 0.22 | 0.65 | |
| other eelpouts | | | | | | | | |
| shortspine thornyhead | | | | | 56.52 | 67.30 | 35.76 | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | | | | |
| Pacific ocean perch | 5.60 | 5.50 | 14.48 | 33.64 | 0.69 | | | |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | 0.65 | |
| Alaskan pink shrimp | 0.32 | 0.16 | 0.72 | 0.35 | | | | |
| other shrimps | | | | | 0.03 | | 0.07 | |
| grooved Tanner crab | | | | | 0.52 | | 0.04 | |
| Tanner crab | 10.47 | 2.06 | 2.28 | 1.51 | | | | |
| triangle Tanner crab | | | | | 0.78 | 0.05 | 0.59 | |
| snow crab | 0.81 | 1.83 | | | | | | |
| scarlet king crab | | | | | | | 1.82 | |
| golden king crab | | | | | | 1.87 | | |
| hermit crabs | 0.11 | 0.04 | 0.03 | | 0.36 | 0.51 | | |
| other crabs | 0.63 | 0.03 | 0.01 | 0.03 | | | | |
| jellyfishes | | | 0.24 | | | | 0.05 | |
| coral & anemones | 0.08 | | 0.40 | 2.05 | | | | |
| gastropods | 0.06 | 0.13 | 0.25 | 0.21 | 2.70 | 4.41 | 1.64 | |
| clams | | | | | | | | |
| giant octopus | 15.24 | | | | | | | |
| other octopus | | | | | 0.94 | | 0.06 | |
| magistrate armhook squid | 0.75 | 6.30 | 1.44 | 5.55 | 2.71 | 2.98 | | |
| other squid | 0.39 | | | 0.16 | | 0.18 | 0.08 | |
| seastars, brittlestars, cucumbers | 29.14 | 4.23 | 1.26 | 1.04 | 188.91 | 259.85 | 4.93 | |
| sponges | 0.32 | 0.02 | 0.14 | | 1.71 | 9.28 | | |
| other inverts | 0.32 | 0.06 | 0.05 | 0.22 | 1.28 | 0.58 | 18.57 | |
| **Haul total weight (kg)** | **356.65** | **355.29** | **401.81** | **551.96** | **681.19** | **807.20** | **666.09** | |

Appendix C. - - Haul log.

| Haul | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 10-JUN-12 | 10-JUN-12 | 10-JUN-12 | 10-JUN-12 | 10-JUN-12 | 11-JUN-12 | 11-JUN-12 | 11-JUN-12 |
| Start latitude (N) | 54.6243 | 54.6960 | 54.7162 | 54.8016 | 54.9253 | 56.0188 | 56.0849 | 56.0433 |
| Start longitude (W) | -167.3191 | -167.4186 | -167.2698 | -167.2328 | -167.3434 | -168.9164 | -168.6526 | -168.3836 |
| End latitude (N) | 54.6425 | 54.7176 | 54.7328 | 54.8164 | 54.9362 | 56.0165 | 56.0887 | 56.0643 |
| End longitude (W) | -167.3321 | -167.4283 | -167.2860 | -167.2584 | -167.3740 | -168.8860 | -168.6716 | -168.3695 |
| Stratum | 12 | 12 | 12 | 12 | 11 | 25 | 23 | 21 |
| Station ID | 12-49 | 12-42 | 12-01 | 12-32 | 11-41 | 25-02 | 23-08 | 21-03 |
| Duration (hour) | 0.51 | 0.52 | 0.49 | 0.50 | 0.50 | 0.50 | 0.29 | 0.53 |
| Distance fished (km) | 2.20 | 2.48 | 2.13 | 2.34 | 2.32 | 1.94 | 1.26 | 2.51 |
| Net width (m) | 16.52 | 16.57 | 16.61 | 16.82 | 16.44 | 15.19 | 15.06 | 15.19 |
| Performance code | 3.13 | 0.00 | 0.00 | 0.00 | 0.00 | 5.10 | 2.40 | 0.00 |
| Bottom depth (m) | 505 | 548 | 464 | 413 | 325 | 1170 | 632 | 227 |
| Surface temperature (°C) | 5.1 | 4.8 | 4.8 | 4.2 | 4.6 | 4.2 | 4.3 | 4.3 |
| Bottom temperature (°C) | 3.6 | 3.5 | 3.6 | 3.5 | 3.3 | 2.7 | 3.5 | 3.2 |
| Pacific sleeper shark | | | | | | | | 20.74 |
| Bering skate | 2.58 | | 4.16 | 1.90 | 7.12 | | | 1.60 |
| mud skate | | | | | | | | 10.46 |
| roughtail skate | | | | | | | | |
| Alaska skate | | | | | | | | |
| Aleutian skate | | | 3.28 | | 257.92 | 1.44 | 1.66 | 31.82 |
| Commander skate | | | | | | 4.20 | 16.86 | |
| whiteblotched skate | | | | 7.96 | 19.94 | | 45.70 | |
| whitebrow skate | | 3.20 | 2.98 | | | | | |
| other elasmobranchs & eggs | | | | | 12.76 | | | 3.49 |
| arrowtooth flounder | 12.76 | 21.98 | 16.96 | 43.54 | 377.56 | | 4.08 | 92.34 |
| Kamchatka flounder | 47.60 | 45.28 | 160.14 | 47.99 | 28.38 | 4.84 | 60.22 | 19.92 |
| Greenland turbot | 2.22 | 28.44 | 9.62 | 10.22 | 3.68 | 5.72 | 20.20 | |
| Pacific halibut | | 2.24 | 10.74 | 49.54 | 61.68 | | | 4.39 |
| flathead sole | | | 26.52 | 70.05 | 11.58 | | | 81.00 |
| rex sole | 2.70 | | 9.34 | 36.68 | 179.13 | | | 1.35 |
| other flatfishes | | | 0.43 | 1.29 | 3.82 | | | |
| sablefish | 2.84 | 12.12 | | | | | 3.98 | |
| Other fishes | | | | 0.27 | 1.18 | | | 1.21 |
| poachers | 0.07 | 0.13 | 0.06 | 0.18 | 0.05 | | | |
| mesopelagic fishes | 0.20 | 0.50 | 0.52 | 0.41 | 6.06 | 1.15 | 0.46 | |
| blacktail snailfish | | 0.92 | | | | | | |
| other snailfishes | | 0.13 | | | | 1.19 | 0.02 | |
| Pacific grenadier | | | | | | 37.10 | | |
| giant grenadier | 332.12 | 854.65 | 240.22 | 97.36 | | 39.48 | 41.50 | |
| popeye grenadier | 0.42 | 17.01 | | | | 138.86 | 9.30 | |
| Pacific cod | | | | | | | | 16.02 |
| walleye pollock | | | 9.00 | 36.98 | 81.08 | | | 10.00 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | 0.16 | 0.04 | 0.21 | 0.22 | 1.59 | | | 0.03 |
| spinyhead sculpin | | | | | 0.34 | | | |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | | | | | 5.75 | | | |
| other sculpins | | | | 0.002 | | | | |
| twoline eelpout | | | | | | | 2.66 | |
| western eelpout | 21.70 | 102.12 | 10.88 | | | 1.99 | | |
| ebony eelpout | | | | | | 3.76 | 5.14 | |
| Bering eelpout | | | 0.08 | 0.08 | 0.08 | | | |
| other eelpouts | 0.01 | | | | | 0.33 | | |
| shortspine thornyhead | 37.94 | 75.66 | 47.30 | 117.72 | 36.32 | 2.40 | 15.78 | |
| rougheye rockfish | | | | | 4.60 | | | |
| blackspotted rockfish | 2.19 | | | 1.56 | | | | |
| Pacific ocean perch | | 0.59 | 3.68 | 20.10 | 37.62 | | | 3873.00 |
| shortraker rockfish | 1.09 | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | | | | |
| other shrimps | 0.06 | | 0.47 | 0.78 | 0.27 | 0.04 | | |
| grooved Tanner crab | | | | | | 0.25 | 0.72 | |
| Tanner crab | | | | | | | | 0.21 |
| triangle Tanner crab | 0.49 | | 0.02 | | | 3.16 | | |
| snow crab | | | | | | | | |
| scarlet king crab | | | | | | | | |
| golden king crab | 0.72 | 1.37 | 2.35 | | 0.54 | | 5.62 | 6.16 |
| hermit crabs | | 0.02 | 0.12 | 0.81 | 0.90 | | 0.01 | |
| other crabs | | | | 0.01 | 0.02 | 2.16 | | |
| jellyfishes | 0.09 | 0.02 | | | 0.94 | 1.19 | | 0.44 |
| coral & anemones | 0.09 | | 0.28 | 0.50 | 2.76 | 0.05 | | 0.47 |
| gastropods | 1.87 | 0.90 | 0.96 | 2.31 | 4.25 | 0.03 | | 0.60 |
| clams | | | | | | | | |
| giant octopus | 1.73 | | | | | | | |
| other octopus | | | 0.82 | 0.59 | | 0.05 | | |
| magistrate armhook squid | 1.33 | 4.60 | 6.24 | 4.39 | 8.57 | | 1.22 | 1.38 |
| other squid | 0.13 | | 0.24 | 0.90 | | | | |
| seastars, brittlestars, cucumbers | 159.65 | 196.58 | 191.59 | 100.67 | 14.70 | 0.004 | 0.14 | 1.10 |
| sponges | 30.66 | 5.90 | | 0.45 | 0.10 | 0.86 | 0.08 | 0.26 |
| other inverts | 0.28 | 0.19 | 0.01 | 0.02 | 0.07 | | | |
| **Haul total weight (kg)** | **663.68** | **1374.58** | **759.21** | **655.46** | **1171.37** | **250.27** | **235.35** | **4178.00** |

Appendix C. - - Haul log.

| Haul | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 11-JUN-12 | 12-JUN-12 | 12-JUN-12 | 12-JUN-12 | 12-JUN-12 | 12-JUN-12 | 13-JUN-12 | 13-JUN-12 |
| Start latitude (N) | 56.1549 | 56.4698 | 56.5046 | 56.4958 | 56.4904 | 56.5633 | 57.7521 | 57.7301 |
| Start longitude (W) | -168.5344 | -171.8527 | -172.0016 | -172.2007 | -172.2976 | -172.8017 | -173.9431 | -173.7834 |
| End latitude (N) | 56.1644 | 56.4617 | 56.4947 | 56.5033 | 56.4945 | 56.5559 | 57.7490 | 57.7457 |
| End longitude (W) | -168.5709 | -171.8192 | -171.9706 | -172.2350 | -172.3359 | -172.7847 | -173.9215 | -173.8102 |
| Stratum | 21 | 31 | 32 | 35 | 35 | 31 | 44 | 41 |
| Station ID | 21-04 | 31-02 | 32-01 | 35-01 | 35-02 | 31-04 | 44-01 | 41-03 |
| Duration (hour) | 0.58 | 0.51 | 0.51 | 0.51 | 0.59 | 0.33 | 0.31 | 0.51 |
| Distance fished (km) | 2.51 | 2.28 | 2.24 | 2.29 | 2.43 | 1.35 | 1.36 | 2.40 |
| Net width (m) | 15.17 | 15.00 | 16.30 | 16.65 | 17.11 | 15.43 | 16.67 | 15.46 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 288 | 314 | 539 | 1007 | 1025 | 221 | 874 | 357 |
| Surface temperature (°C) | 4.2 | 4.8 | 4.6 | 5.1 | 5 | 5.1 | 3.6 | 4.1 |
| Bottom temperature (°C) | 3.2 | 3.4 | 3.7 | 2.8 | 2.7 | 2.9 | 3.1 | 3.7 |
| Pacific sleeper shark | | | | | | | | 43.60 |
| Bering skate | 0.70 | | | | | 11.66 | | 8.66 |
| mud skate | 1.24 | | | | | | | 2.26 |
| roughtail skate | | | | 16.34 | 14.24 | | 10.16 | |
| Alaska skate | | | | | | 23.60 | | 5.50 |
| Aleutian skate | 8.84 | 8.10 | 24.54 | 1.87 | 0.09 | | 8.44 | 9.82 |
| Commander skate | | | 7.37 | 1.37 | | | 4.07 | 4.14 |
| whiteblotched skate | 14.96 | | | | | | | 34.90 |
| whitebrow skate | | | 5.96 | 0.08 | | 2.70 | 0.12 | |
| other elasmobranchs & eggs | | | | | | | | |
| arrowtooth flounder | 160.58 | 397.80 | 22.00 | | | 16.24 | | 178.62 |
| Kamchatka flounder | 29.28 | 1.46 | 97.04 | | | | 7.27 | 11.12 |
| Greenland turbot | | 3.04 | 4.90 | | 3.64 | | 10.80 | |
| Pacific halibut | 7.91 | 24.06 | 101.40 | | | 3.85 | | 9.54 |
| flathead sole | 4.50 | 9.68 | 2.10 | | | 42.50 | | 31.54 |
| rex sole | | 56.34 | 7.82 | | | 31.86 | | 12.08 |
| other flatfishes | | | | | | | | |
| sablefish | | | | | | | 19.62 | |
| Other fishes | 2.46 | 0.68 | | | | 2.80 | | 0.66 |
| poachers | 0.07 | | | | | 0.06 | 0.11 | 0.02 |
| mesopelagic fishes | 0.06 | 0.45 | 0.37 | 0.41 | 0.16 | | 0.55 | 1.93 |
| blacktail snailfish | | | 3.38 | 0.91 | | | 3.49 | |
| other snailfishes | 0.68 | 4.68 | 1.85 | 1.60 | 1.16 | | 2.20 | 0.20 |
| Pacific grenadier | | | | 18.62 | 82.70 | | 5.77 | |
| giant grenadier | | 741.10 | 891.08 | 628.46 | 1203.30 | | 939.24 | 613.78 |
| popeye grenadier | | | 45.92 | 126.08 | 260.14 | | 177.26 | 2.06 |
| Pacific cod | 39.13 | | | | | 3.02 | | 7.28 |
| walleye pollock | 13.89 | 1.90 | | | | 17.92 | | 83.70 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | 0.29 | 0.15 | | | | 0.59 | | 0.37 |
| spinyhead sculpin | | | 0.14 | | | | | |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | 40.86 | 4.21 | 0.19 | | | | | 11.72 |
| other sculpins | | | 0.05 | | | | 0.002 | |
| twoline eelpout | | | | | | | 0.01 | |
| western eelpout | | | | | | | | |
| ebony eelpout | | | | | | | | |
| Bering eelpout | | | 0.17 | | | | | |
| other eelpouts | | | | 0.01 | 0.01 | | 0.004 | 0.004 |
| shortspine thornyhead | | 1.06 | 92.84 | 4.34 | | | | |
| rougheye rockfish | | 3.61 | | | | | | 8.04 |
| blackspotted rockfish | | | | | | | | 2.06 |
| Pacific ocean perch | 238.60 | 31.52 | | | | 1323.75 | | 128.84 |
| shortraker rockfish | | 9.57 | 17.36 | | | | | 80.76 |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | 0.64 | 0.51 | | | | 0.15 | | 1.49 |
| other shrimps | 0.04 | 0.36 | | 0.03 | 0.01 | | 0.03 | 0.51 |
| grooved Tanner crab | | | 2.61 | 0.34 | 0.55 | | 2.40 | |
| Tanner crab | | 0.02 | | | | 0.02 | | 0.92 |
| triangle Tanner crab | | | | 0.74 | | | 0.72 | |
| snow crab | | | | | | | | |
| scarlet king crab | | | | | | | 2.06 | |
| golden king crab | 47.21 | | 0.30 | | | | | 7.21 |
| hermit crabs | | | 0.28 | | | | 0.07 | |
| other crabs | | | | 3.94 | 2.88 | | 0.45 | |
| jellyfishes | 0.89 | | | 0.03 | | | 0.18 | |
| coral & anemones | 6.32 | 0.74 | 1.20 | 0.65 | | 0.30 | 3.28 | 19.10 |
| gastropods | 0.34 | 0.01 | 0.41 | 0.11 | | | | 0.18 |
| clams | | | | | | | | |
| giant octopus | 2.93 | 0.93 | | | | | | |
| other octopus | | | 6.10 | 0.24 | | | | 0.49 |
| magistrate armhook squid | 1.82 | 0.60 | 0.78 | | | 2.61 | | 0.28 |
| other squid | | | | | | 0.10 | | |
| seastars, brittlestars, cucumbers | 1.22 | 1.16 | 2.50 | 33.27 | 9.27 | 2.27 | | 3.56 |
| sponges | 1.76 | 1.49 | 0.54 | 7.36 | 0.76 | | | 0.12 |
| other inverts | | 0.02 | 0.01 | | 0.01 | | | 0.42 |
| **Haul total weight (kg)** | **627.23** | **1305.25** | **1341.20** | **846.80** | **1578.90** | **1486.00** | **1198.32** | **1327.48** |

Appendix C. - - Haul log.

| Haul | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 13-JUN-12 | 13-JUN-12 | 14-JUN-12 | 14-JUN-12 | 14-JUN-12 | 14-JUN-12 | 14-JUN-12 | 15-JUN-12 |
| Start latitude (N) | 57.8392 | 57.8487 | 58.5383 | 58.5571 | 58.6045 | 58.5717 | 58.6180 | 59.7198 |
| Start longitude (W) | -173.9503 | -173.9051 | -176.8529 | -176.9317 | -176.8075 | -177.0898 | -177.2387 | -178.6369 |
| End latitude (N) | 57.8587 | 57.8302 | 58.5273 | 58.5558 | 58.6080 | 58.5790 | 58.6257 | 59.7078 |
| End longitude (W) | -173.9573 | -173.8855 | -176.8324 | -176.9443 | -176.8525 | -177.1299 | -177.2807 | -178.6236 |
| Stratum | 43 | 42 | 53 | 54 | 51 | 52 | 51 | 63 |
| Station ID | 43-06 | 42-02 | 53-02 | 54-05 | 51-01 | 52-06 | 51-06 | 63-04 |
| Duration (hour) | 0.54 | 0.53 | 0.45 | 0.20 | 0.54 | 0.56 | 0.53 | 0.35 |
| Distance fished (km) | 2.26 | 2.37 | 1.77 | 0.78 | 2.67 | 2.50 | 2.61 | 1.59 |
| Net width (m) | 15.85 | 14.97 | 16.08 | 17.17 | 15.67 | 15.50 | 15.17 | 16.56 |
| Performance code | 4.10 | 0.00 | 5.10 | 1.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 659 | 508 | 769 | 879 | 241 | 448 | 266 | 641 |
| Surface temperature (°C) | 4.2 | 3.8 | 3.4 | 3.4 | 3.1 | 4.1 | 3.6 | 2.7 |
| Bottom temperature (°C) | 3.4 | 3.7 | 3.4 | 3.2 | 2.3 | 3.8 | 2.5 | 3.5 |
| Pacific sleeper shark | | | | | | | 17.84 | |
| Bering skate | | | | | 7.74 | 6.80 | 0.04 | |
| mud skate | | 0.92 | | | | 3.08 | 1.70 | |
| roughtail skate | | | 9.08 | | | | | |
| Alaska skate | | | | | 91.26 | | 27.84 | |
| Aleutian skate | 29.66 | 6.15 | 3.30 | | 40.63 | 8.12 | 68.08 | 5.16 |
| Commander skate | 31.90 | 10.62 | 2.47 | | | | | 5.72 |
| whiteblotched skate | | 5.06 | | | | | 6.42 | |
| whitebrow skate | 0.05 | | 1.08 | | | 2.20 | | |
| other elasmobranchs & eggs | | | | | | 0.04 | | 0.07 |
| arrowtooth flounder | 2.96 | 102.30 | | | 52.43 | 53.67 | 56.77 | 3.70 |
| Kamchatka flounder | 23.07 | 80.66 | 4.05 | | 0.05 | 36.32 | 6.09 | 47.08 |
| Greenland turbot | 27.57 | 2.72 | | 10.62 | 1.80 | 12.11 | 0.47 | 122.52 |
| Pacific halibut | | 43.30 | | | 22.14 | 5.63 | | |
| flathead sole | | 19.92 | | | 12.51 | 22.16 | 28.18 | |
| rex sole | | | | | 1.80 | 53.98 | 1.28 | |
| other flatfishes | | 1.42 | | | | | | |
| sablefish | 35.46 | 23.38 | 6.32 | | | | | 7.76 |
| Other fishes | 0.19 | | | 0.16 | | | | 1.05 |
| poachers | 0.04 | | 0.01 | | 2.67 | 0.28 | 0.97 | 0.22 |
| mesopelagic fishes | | 0.15 | 0.12 | 0.23 | | 0.21 | | |
| blacktail snailfish | 4.96 | | 0.18 | 0.03 | | 1.74 | | 1.04 |
| other snailfishes | 0.29 | | 0.02 | | 0.59 | 0.57 | 0.35 | 0.09 |
| Pacific grenadier | | | 0.16 | 2.40 | | | | |
| giant grenadier | 1666.12 | 177.63 | 1260.49 | 82.48 | | 66.32 | | 1195.85 |
| popeye grenadier | 238.81 | | 119.05 | 36.86 | | | | 103.98 |
| Pacific cod | | | | | | | 12.73 | |
| walleye pollock | | 0.31 | 1.05 | 2.88 | 58.26 | 1.93 | 83.22 | 12.42 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | 0.24 | | | | 0.10 | 0.89 | | |
| spinyhead sculpin | | | | | | 0.03 | 0.10 | |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | | | | | 0.90 | | | |
| other sculpins | 0.01 | 0.04 | | | 0.02 | 0.02 | | 0.01 |
| twoline eelpout | | | | | | | | |
| western eelpout | | | | | | | | 0.01 |
| ebony eelpout | | 1.23 | | | | | | |
| Bering eelpout | 0.26 | 0.34 | | | | 0.14 | | 0.65 |
| other eelpouts | | | | 0.13 | | | | 0.92 |
| shortspine thornyhead | 65.74 | 11.76 | 3.08 | | | 34.80 | | 41.62 |
| rougheye rockfish | | 2.32 | | | | | | |
| blackspotted rockfish | | | | | | | | |
| Pacific ocean perch | | | | | 259.75 | | 212.26 | |
| shortraker rockfish | | 0.08 | | | | 15.26 | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | 4.20 | | 1.93 | |
| other shrimps | | 0.99 | | 0.01 | | 4.06 | | |
| grooved Tanner crab | 23.41 | 2.12 | 0.80 | | | 2.70 | | 10.10 |
| Tanner crab | | | | | | | 0.14 | |
| triangle Tanner crab | | | 27.35 | 1.30 | | 0.23 | | |
| snow crab | | | | | | | | |
| scarlet king crab | 2.29 | | | | | | | |
| golden king crab | 0.85 | | | | 1.62 | 0.87 | | |
| hermit crabs | 0.04 | | | | | | 0.004 | 0.43 |
| other crabs | | | | | | | | |
| jellyfishes | 0.90 | 3.24 | | 1.30 | 0.07 | 0.33 | | |
| coral & anemones | 1.00 | 5.91 | | 1.31 | 0.37 | 31.39 | 4.81 | 0.81 |
| gastropods | | | 0.19 | 0.04 | 1.06 | | 0.24 | 1.07 |
| clams | | | | | | | | |
| giant octopus | | | | | | 1.10 | | |
| other octopus | 1.26 | 1.17 | | | | 0.90 | | 0.78 |
| magistrate armhook squid | 0.34 | 1.28 | | | | 3.37 | 2.33 | 0.63 |
| other squid | | | | | 1.95 | | 0.93 | 0.06 |
| seastars, brittlestars, cucumbers | 2.69 | 2.01 | 13.18 | 3.35 | 2.83 | 10.21 | 4.27 | 18.61 |
| sponges | 13.78 | | | 12.72 | 3.38 | | 0.45 | 0.61 |
| other inverts | 0.12 | 0.08 | 0.03 | 31.15 | 0.27 | 0.18 | | 0.02 |
| **Haul total weight (kg)** | **2174.00** | **507.09** | **1452.00** | **186.97** | **568.41** | **381.64** | **539.44** | **1583.00** |

Appendix C. - - Haul log.

| Haul | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 15-JUN-12 | 15-JUN-12 | 15-JUN-12 | 16-JUN-12 | 16-JUN-12 | 16-JUN-12 | 16-JUN-12 | 16-JUN-12 |
| Start latitude (N) | 59.5862 | 59.5524 | 59.5279 | 59.5031 | 59.5280 | 59.5128 | 59.4034 | 59.3770 |
| Start longitude (W) | -178.5070 | -178.4127 | -178.2521 | -178.3018 | -178.0648 | -177.7843 | -177.7477 | -177.5984 |
| End latitude (N) | 59.6005 | 59.5735 | 59.5119 | 59.4872 | 59.5214 | 59.5061 | 59.4151 | 59.3976 |
| End longitude (W) | -178.5144 | -178.4246 | -178.2242 | -178.2750 | -178.1062 | -177.8207 | -177.7545 | -177.6041 |
| Stratum | 64 | 62 | 61 | 61 | 61 | 61 | 62 | 61 |
| Station ID | 64-07 | 62-05 | 61-05 | 61-06 | 61-20 | 61-04 | 62-03 | 61-02 |
| Duration (hour) | 0.38 | 0.50 | 0.53 | 0.48 | 0.52 | 0.50 | 0.27 | 0.49 |
| Distance fished (km) | 1.67 | 2.44 | 2.41 | 2.35 | 2.52 | 2.22 | 1.36 | 2.31 |
| Net width (m) | 16.84 | 16.41 | 15.59 | 15.98 | 15.83 | 15.58 | 13.25 | 15.59 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.10 | 0.00 |
| Bottom depth (m) | 913 | 429 | 230 | 264 | 225 | 314 | 434 | 252 |
| Surface temperature (°C) | 3.4 | 3.3 | 2.9 | 3.5 | 1.6 | 2.8 | 3.1 | 3.8 |
| Bottom temperature (°C) | 3.1 | 3.5 | 2.3 | 2.6 | 2.2 | 2.9 | 3.6 | 2.6 |
| Pacific sleeper shark | | | 20.05 | 20.45 | | | | |
| Bering skate | | 4.14 | 10.75 | 3.56 | 15.22 | 25.52 | 5.80 | 46.24 |
| mud skate | | | | | | 2.08 | 4.48 | 5.95 |
| roughtail skate | | | | | | | | |
| Alaska skate | | 165.24 | 265.40 | 104.02 | 980.20 | 109.98 | 15.30 | 510.30 |
| Aleutian skate | | 143.19 | 15.96 | 5.72 | 6.12 | 136.44 | 20.20 | 73.94 |
| Commander skate | | 2.96 | | | | | | |
| whiteblotched skate | | 23.86 | | | | 9.14 | 75.10 | 6.39 |
| whitebrow skate | | 4.36 | | | | 3.40 | | |
| other elasmobranchs & eggs | | | | | | | 0.10 | 0.62 |
| arrowtooth flounder | | 165.48 | 126.31 | 53.55 | 73.62 | 93.40 | 640.21 | 22.74 |
| Kamchatka flounder | | 115.41 | 36.28 | 16.30 | 26.92 | 116.62 | 107.91 | 11.72 |
| Greenland turbot | | 85.50 | 63.77 | 24.11 | 17.58 | 10.74 | 92.81 | 5.58 |
| Pacific halibut | | 41.66 | 21.81 | 25.22 | 3.79 | 14.73 | 5.86 | 12.60 |
| flathead sole | | 6.56 | 224.09 | 84.28 | 109.52 | 259.16 | 14.64 | 33.45 |
| rex sole | | | 1.11 | 2.66 | 3.68 | 9.38 | | 0.34 |
| other flatfishes | | | 1.13 | | 2.22 | | | |
| sablefish | | | | | | | | |
| Other fishes | | 0.04 | | | | | 0.12 | |
| poachers | | 0.23 | 0.09 | 0.08 | 1.79 | 0.22 | | 0.84 |
| mesopelagic fishes | 0.24 | 1.14 | | | | | | |
| blacktail snailfish | | | | | | | | |
| other snailfishes | 0.17 | 5.47 | 0.22 | 0.71 | 5.32 | 10.06 | 7.68 | 11.04 |
| Pacific grenadier | 17.73 | | | | | | | |
| giant grenadier | 284.00 | 130.40 | | | | | 104.11 | |
| popeye grenadier | 107.25 | | | | | | | |
| Pacific cod | | | 46.76 | 44.36 | 71.76 | 69.97 | | 14.04 |
| walleye pollock | | 8.16 | 635.81 | 289.11 | 368.08 | 25.48 | | 575.66 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | | 0.03 | 0.01 | 0.70 | 6.22 | 7.00 | |
| spinyhead sculpin | | 0.06 | | 0.52 | | 0.38 | | |
| blob sculpin | 0.03 | | | | | | | |
| bigmouth sculpin | | 13.66 | 37.86 | 11.48 | 40.92 | 16.96 | 10.52 | |
| other sculpins | | | 4.02 | 12.41 | 36.09 | 4.64 | 0.26 | 3.38 |
| twoline eelpout | | | | | | | | |
| western eelpout | | | | | | | | |
| ebony eelpout | | | | | | | 0.94 | |
| Bering eelpout | 0.18 | 0.26 | | 0.11 | | 0.47 | 0.18 | 0.08 |
| other eelpouts | 0.50 | | 0.16 | | | | | |
| shortspine thornyhead | | 16.10 | | | | | | |
| rougheye rockfish | | | | | | 2.44 | | |
| blackspotted rockfish | | | | | | | 1.43 | |
| Pacific ocean perch | | | | 0.27 | | 102.37 | 1.02 | |
| shortraker rockfish | | 11.40 | | | | | 0.19 | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | 6.82 | 6.86 | 6.90 | 28.28 | | 2.58 |
| other shrimps | | 0.70 | | | | | | |
| grooved Tanner crab | 0.47 | | | | | | | |
| Tanner crab | | | 0.81 | 1.39 | 0.47 | 0.06 | | 0.02 |
| triangle Tanner crab | 96.94 | | | | | | 0.02 | |
| snow crab | | | | | | 0.05 | | |
| scarlet king crab | 2.02 | | | | | | | |
| golden king crab | | 3.27 | 1.40 | | 1.27 | 2.82 | 0.66 | 3.61 |
| hermit crabs | 0.02 | 0.63 | 0.23 | 2.12 | 0.51 | | | 0.06 |
| other crabs | 0.01 | | | | | | | |
| jellyfishes | 0.52 | 0.27 | 0.30 | 0.16 | | | | 0.67 |
| coral & anemones | 5.95 | 5.06 | 4.19 | 16.15 | 12.80 | 157.38 | 30.94 | 8.74 |
| gastropods | 1.00 | 0.80 | 1.72 | 2.88 | 1.73 | 0.19 | 0.21 | 1.04 |
| clams | 0.02 | | | | | | | 0.002 |
| giant octopus | | | | 0.01 | 3.00 | | 2.28 | 0.03 |
| other octopus | 0.09 | 0.24 | | | | 0.08 | | |
| magistrate armhook squid | | 8.31 | 1.40 | 1.41 | 0.22 | 0.63 | 0.98 | 2.31 |
| other squid | | | 0.30 | 0.18 | 0.07 | | | 0.19 |
| seastars, brittlestars, cucumbers | 25.01 | 15.42 | 14.78 | 18.62 | 2.90 | 23.99 | 9.57 | 2.71 |
| sponges | 3.71 | | | 0.13 | | | 0.30 | 0.12 |
| other inverts | 0.02 | 1.77 | 0.44 | 2.25 | 1.80 | 0.02 | 0.06 | 0.30 |
| **Haul total weight (kg)** | **545.89** | **981.76** | **1544.00** | **751.11** | **1795.20** | **1243.30** | **1160.89** | **1357.29** |

Appendix C. - - Haul log.

| Haul | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 17-JUN-12 | 17-JUN-12 | 17-JUN-12 | 17-JUN-12 | 18-JUN-12 | 18-JUN-12 | 18-JUN-12 | 18-JUN-12 |
| Start latitude (N) | 59.3682 | 59.3629 | 59.3893 | 59.4186 | 59.3986 | 59.3384 | 59.3573 | 59.2996 |
| Start longitude (W) | -178.4746 | -178.2513 | -178.2569 | -178.1159 | -178.2134 | -178.0914 | -177.9838 | -177.6901 |
| End latitude (N) | 59.3565 | 59.3708 | 59.3817 | 59.4187 | 59.3986 | 59.3353 | 59.3673 | 59.3183 |
| End longitude (W) | -178.4534 | -178.2899 | -178.2211 | -178.1584 | -178.1908 | -178.1324 | -178.0185 | -177.6772 |
| Stratum | 65 | 64 | 63 | 62 | 63 | 63 | 62 | 61 |
| Station ID | 65-05 | 64-03 | 63-10 | 62-04 | 63-02 | 63-01 | 62-15 | 61-17 |
| Duration (hour) | 0.44 | 0.56 | 0.56 | 0.57 | 0.30 | 0.52 | 0.52 | 0.53 |
| Distance fished (km) | 1.90 | 2.38 | 2.23 | 2.48 | 1.30 | 2.39 | 2.30 | 2.26 |
| Net width (m) | 15.68 | 16.51 | 16.34 | 15.88 | 16.71 | 15.25 | 15.90 | 15.42 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 1041 | 835 | 771 | 534 | 632 | 625 | 542 | 339 |
| Surface temperature (°C) | 5.3 | 3.8 | 4.3 | 3.8 | 3.8 | 3.7 | 3.3 | 2.8 |
| Bottom temperature (°C) | 2.8 | 3.1 | 3.3 | 3.6 | 3.4 | 3.4 | 3.6 | 3.6 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | | | | 0.03 | | | | 1.20 |
| mud skate | | | | | | 4.24 | 0.48 | 12.84 |
| roughtail skate | 4.78 | 2.34 | 0.61 | | | | | |
| Alaska skate | | | | | | | | |
| Aleutian skate | | | 4.32 | 23.92 | 9.30 | 16.96 | 9.18 | 33.58 |
| Commander skate | 1.22 | 16.86 | 9.56 | 15.46 | 48.18 | 21.82 | 6.12 | |
| whiteblotched skate | | | | 0.66 | | | 1.28 | 31.62 |
| whitebrow skate | 0.36 | 0.88 | | 0.78 | | 2.20 | | |
| other elasmobranchs & eggs | 0.01 | | | 0.03 | | | | |
| arrowtooth flounder | | | | 8.08 | 3.84 | | 15.22 | 732.18 |
| Kamchatka flounder | | | 4.94 | 27.24 | 19.16 | 12.31 | 38.20 | 116.60 |
| Greenland turbot | | | 28.40 | 96.87 | 32.62 | 43.08 | 35.80 | 83.72 |
| Pacific halibut | | | | | | | 11.09 | 3.68 |
| flathead sole | | | | 0.60 | | | | 121.98 |
| rex sole | | | | | | | | 22.90 |
| other flatfishes | | | | | 4.08 | | | |
| sablefish | | 6.84 | 8.26 | | 18.32 | 2.98 | 20.58 | |
| Other fishes | 2.37 | | | 1.52 | 1.62 | | 1.12 | |
| poachers | | 0.01 | 0.01 | 0.01 | 0.07 | 0.13 | 0.11 | 0.02 |
| mesopelagic fishes | 1.01 | 0.23 | 0.14 | 0.05 | | 0.07 | 0.08 | |
| blacktail snailfish | 0.22 | 0.20 | 4.70 | | | 0.14 | | |
| other snailfishes | 0.73 | 0.78 | 4.11 | | 0.02 | 1.65 | 1.94 | 0.41 |
| Pacific grenadier | 20.52 | 1.42 | | | | | | |
| giant grenadier | 161.06 | 769.97 | 627.42 | 2554.73 | 1240.50 | 1089.00 | 1743.37 | |
| popeye grenadier | 161.72 | 317.64 | 393.24 | 6.98 | 174.52 | 148.94 | 64.14 | |
| Pacific cod | | | | | | | | |
| walleye pollock | | | | | 0.19 | | | |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | | | | 0.02 | | | 1.38 |
| spinyhead sculpin | | | | | | | | |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | | | | | | | 1.03 | 13.82 |
| other sculpins | | | | | 0.13 | 0.26 | 0.06 | |
| twoline eelpout | | | | 1.82 | | | 2.31 | |
| western eelpout | | 0.09 | | | 0.002 | | 0.26 | |
| ebony eelpout | | | | 5.82 | | 11.22 | 2.39 | |
| Bering eelpout | | | | 1.51 | 0.71 | 0.29 | 0.90 | |
| other eelpouts | 0.06 | | | | | | | |
| shortspine thornyhead | | | 2.52 | 52.74 | 75.60 | 26.02 | 12.98 | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | | | | |
| Pacific ocean perch | | | | | | | | 13.44 |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | | | | 1.09 |
| other shrimps | | | | | 0.05 | | | 0.21 |
| grooved Tanner crab | | 0.03 | | 13.39 | 0.94 | 5.08 | 18.24 | 1.11 |
| Tanner crab | | | | | | | | |
| triangle Tanner crab | 8.76 | 18.78 | 66.96 | | 3.21 | 12.28 | 2.96 | 0.24 |
| snow crab | | | | | | | | |
| scarlet king crab | 4.74 | | 11.32 | | 2.12 | | | |
| golden king crab | | | | 14.29 | 0.27 | | 1.00 | 2.68 |
| hermit crabs | | | 0.04 | | | | | |
| other crabs | 3.11 | | | | | | | |
| jellyfishes | 0.51 | 2.52 | 0.27 | | | 0.01 | | |
| coral & anemones | 16.46 | 0.64 | 0.27 | 15.64 | 4.68 | 4.40 | 11.54 | 20.04 |
| gastropods | 0.14 | 0.17 | 0.35 | 0.20 | 0.17 | 0.03 | | 0.07 |
| clams | | | | | | | | |
| giant octopus | | | | | | | | |
| other octopus | | | | 0.70 | | 0.73 | | 0.20 |
| magistrate armhook squid | | | | | | | | 0.81 |
| other squid | | | 0.22 | | | | | |
| seastars, brittlestars, cucumbers | 4.09 | 0.93 | 3.29 | 18.94 | 4.84 | 3.58 | 1.53 | 1.20 |
| sponges | 2.96 | 0.12 | | | | 2.48 | | |
| other inverts | | 0.08 | 0.30 | | 0.85 | 0.10 | 0.12 | |
| **Haul total weight (kg)** | **394.84** | **1140.55** | **1171.25** | **2862.00** | **1646.00** | **1410.00** | **2004.00** | **1217.01** |

Appendix C. - - Haul log.

| Haul | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 18-JUN-12 | 19-JUN-12 | 19-JUN-12 | 20-JUN-12 | 20-JUN-12 | 20-JUN-12 | 20-JUN-12 | 21-JUN-12 |
| Start latitude (N) | 59.1900 | 59.2492 | 59.3558 | 60.6092 | 60.5061 | 60.4365 | 60.3733 | 60.1218 |
| Start longitude (W) | -177.9422 | -177.8454 | -178.3555 | -178.8299 | -178.8626 | -179.0462 | -179.3386 | -179.4957 |
| End latitude (N) | 59.1840 | 59.2563 | 59.3653 | 60.5896 | 60.4921 | 60.4271 | 60.3585 | 60.1090 |
| End longitude (W) | -177.9013 | -177.8782 | -178.3903 | -178.8200 | -178.8362 | -179.0124 | -179.3076 | -179.4742 |
| Stratum | 61 | 62 | 64 | 61 | 61 | 62 | 63 | 65 |
| Station ID | 61-01 | 62-01 | 64-01 | 61-16 | 61-15 | 62-12 | 63-06 | 65-03 |
| Duration (hour) | 0.49 | 0.47 | 0.49 | 0.50 | 0.47 | 0.48 | 0.52 | 0.47 |
| Distance fished (km) | 2.45 | 2.05 | 2.27 | 2.27 | 2.15 | 2.18 | 2.39 | 1.89 |
| Net width (m) | 15.28 | 15.65 | 16.28 | 15.98 | 15.73 | 14.72 | 15.93 | 17.39 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 214 | 415 | 958 | 236 | 293 | 471 | 738 | 1121 |
| Surface temperature (°C) | 3.2 | 3.2 | 4.8 | 3.1 | 3.7 | 3.9 | 4.7 | 2.7 |
| Bottom temperature (°C) | 2 | 3.6 | 2.9 | 2 | 2.7 | 3.3 | 3 | 2.6 |
| Pacific sleeper shark | | | | | 18.18 | | | |
| Bering skate | 11.32 | | | 0.70 | 0.34 | | | |
| mud skate | 9.52 | 1.00 | | | | 0.62 | | |
| roughtail skate | | | | | | | | 6.76 |
| Alaska skate | 13.62 | | | 21.12 | 73.50 | | | |
| Aleutian skate | | 5.28 | | | | 8.48 | 14.02 | |
| Commander skate | | | 0.06 | | | | 5.31 | |
| whiteblotched skate | | | | | 5.20 | 13.24 | | |
| whitebrow skate | 2.44 | | | | 2.18 | | 1.36 | |
| other elasmobranchs & eggs | | | | | 0.45 | | 0.01 | |
| arrowtooth flounder | 48.80 | 104.05 | | 97.34 | 58.66 | 5.04 | | |
| Kamchatka flounder | 24.78 | 8.79 | | 24.33 | 11.74 | 10.02 | | |
| Greenland turbot | 1.52 | 102.13 | | 21.18 | 16.51 | 65.44 | | |
| Pacific halibut | 6.78 | | | 3.40 | | | | |
| flathead sole | 48.06 | 16.32 | | 44.86 | 7.38 | | | |
| rex sole | 32.20 | 3.23 | | | | | | |
| other flatfishes | 1.79 | | | 0.88 | | | | |
| sablefish | | | | | | 9.52 | | |
| Other fishes | | 0.78 | | | | | 2.55 | |
| poachers | 0.19 | 0.01 | | 0.06 | 0.35 | | | |
| mesopelagic fishes | | | 0.98 | | | 0.16 | 0.29 | 0.35 |
| blacktail snailfish | | 0.66 | | | | | 0.41 | |
| other snailfishes | 1.81 | 1.10 | 0.39 | 3.27 | 2.82 | | 3.88 | 0.47 |
| Pacific grenadier | | | 15.09 | | | | | 15.10 |
| giant grenadier | | 4548.12 | 459.95 | | | 146.98 | 749.89 | 3403.37 |
| popeye grenadier | | | 257.59 | | | | 21.44 | 142.68 |
| Pacific cod | 2.74 | | | 45.08 | 9.30 | | | |
| walleye pollock | 44.96 | | | 122.72 | 16.04 | | | 3.50 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | 0.16 | | 0.49 | 11.94 | | | |
| spinyhead sculpin | | | | 0.16 | 1.35 | | | |
| blob sculpin | | | | | | | | 2.82 |
| bigmouth sculpin | | 6.90 | | 45.74 | 1.60 | | | |
| other sculpins | 0.28 | | | 3.14 | 1.01 | | | |
| twoline eelpout | | 2.17 | 0.01 | | | | | |
| western eelpout | | | | | | | | |
| ebony eelpout | | | | | | 9.48 | | |
| Bering eelpout | | 0.27 | | | | 0.17 | | |
| other eelpouts | | | 0.11 | 0.20 | 0.03 | | 0.01 | |
| shortspine thornyhead | | | | | | 0.98 | 2.02 | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | | | | |
| Pacific ocean perch | | | | | 116.78 | | | |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | 0.37 | | | 5.08 | 4.97 | | | |
| other shrimps | | 0.61 | 0.02 | | 1.69 | | | |
| grooved Tanner crab | | | 0.07 | | | | 0.80 | |
| Tanner crab | 6.44 | | | 4.25 | 2.10 | 0.12 | | |
| triangle Tanner crab | | | 70.94 | | | 0.09 | 0.60 | 5.18 |
| snow crab | | | | 0.05 | 1.02 | | | |
| scarlet king crab | | | 1.96 | | | | 13.35 | |
| golden king crab | | 1.23 | | | | | | |
| hermit crabs | 0.05 | | | 0.38 | 0.11 | | | |
| other crabs | 0.05 | | | | | | | |
| jellyfishes | | | | | | 0.05 | 2.36 | 0.13 |
| coral & anemones | 3.31 | | 1.63 | 78.40 | 106.49 | 0.02 | | 2.66 |
| gastropods | 0.25 | | | 0.72 | 0.10 | | 0.06 | 0.85 |
| clams | 0.002 | | | | | | | 0.002 |
| giant octopus | 0.01 | | | | 0.93 | | | |
| other octopus | | | | | | | | 1.85 |
| magistrate armhook squid | | | | | | 0.33 | | |
| other squid | | | 0.19 | | 0.72 | | 0.26 | |
| seastars, brittlestars, cucumbers | 1.10 | 0.58 | 0.93 | 70.43 | 101.43 | 1.56 | 4.83 | 8.28 |
| sponges | 3.39 | 2.58 | | 2.28 | 0.23 | | 0.07 | |
| other inverts | 0.03 | 0.04 | 0.01 | 1.44 | 2.27 | 0.03 | | 0.00 |
| **Haul total weight (kg)** | **265.81** | **4806.00** | **809.93** | **597.70** | **577.42** | **272.32** | **823.52** | **3594.00** |

Appendix C. - - Haul log.

| Haul | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 21-JUN-12 | 21-JUN-12 | 21-JUN-12 | 22-JUN-12 | 22-JUN-12 | 22-JUN-12 | 22-JUN-12 | 22-JUN-12 |
| Start latitude (N) | 60.2200 | 60.2037 | 60.2505 | 60.3142 | 60.1808 | 60.1999 | 60.1011 | 60.0819 |
| Start longitude (W) | -179.3441 | -179.2076 | -179.0295 | -178.6792 | -178.8555 | -178.9399 | -179.0607 | -179.1341 |
| End latitude (N) | 60.2061 | 60.2198 | 60.2611 | 60.3319 | 60.1697 | 60.2098 | 60.0829 | 60.0628 |
| End longitude (W) | -179.3625 | -179.2051 | -179.0249 | -178.7054 | -178.8893 | -178.9137 | -179.0745 | -179.1410 |
| Stratum | 64 | 65 | 63 | 61 | 61 | 62 | 61 | 62 |
| Station ID | 64-06 | 65-02 | 63-05 | 61-18 | 61-12 | 62-10 | 61-21 | 62-09 |
| Duration (hour) | 0.42 | 0.42 | 0.26 | 0.53 | 0.50 | 0.40 | 0.47 | 0.50 |
| Distance fished (km) | 1.89 | 1.81 | 1.22 | 2.45 | 2.27 | 1.85 | 2.21 | 2.16 |
| Net width (m) | 14.72 | 14.90 | 15.83 | 16.75 | 15.05 | 16.15 | 15.65 | 15.87 |
| Performance code | 4.40 | 4.40 | 0.00 | 0.00 | 0.00 | 4.10 | 0.00 | 0.00 |
| Bottom depth (m) | 905 | 1025 | 711 | 386 | 390 | 528 | 333 | 535 |
| Surface temperature (°C) | 4.6 | 4 | 3.9 | 4 | 3.1 | 4.1 | 3.9 | 4.3 |
| Bottom temperature (°C) | 2.7 | 2.8 | 3.3 | 3.6 | 2.3 | 3.7 | 3.5 | 3.7 |
| Pacific sleeper shark | | | | 18.07 | 13.81 | | | |
| Bering skate | | | | | | | 4.42 | 1.92 |
| mud skate | | | | 7.46 | 13.20 | 3.38 | 1.32 | |
| roughtail skate | 12.68 | 27.60 | | | | | | |
| Alaska skate | | | | | 8.56 | | 54.74 | |
| Aleutian skate | 4.06 | 1.66 | 10.64 | 138.44 | 29.96 | 6.38 | 15.62 | 26.04 |
| Commander skate | 3.00 | 51.32 | 21.54 | | | 11.78 | 3.12 | 5.71 |
| whiteblotched skate | | | | 69.39 | 13.64 | 97.16 | | 6.27 |
| whitebrow skate | | | | | 6.78 | | 1.84 | 1.40 |
| other elasmobranchs & eggs | | 0.03 | 0.06 | | 0.08 | 0.27 | 0.18 | 0.01 |
| arrowtooth flounder | | | | 65.52 | 692.20 | 1864.07 | 129.50 | 5.75 |
| Kamchatka flounder | | | 1.98 | 14.64 | 36.52 | 111.48 | 31.68 | 16.71 |
| Greenland turbot | | 8.40 | 20.00 | 26.63 | 9.00 | 71.36 | 78.52 | 23.52 |
| Pacific halibut | | | | 5.86 | 7.35 | | 11.95 | |
| flathead sole | | | | 7.46 | 2.52 | 10.28 | 183.98 | 7.30 |
| rex sole | | | | | 4.30 | | 4.00 | |
| other flatfishes | | | 2.22 | | | | | |
| sablefish | | 3.50 | | | | 8.68 | | 16.05 |
| Other fishes | | 1.22 | | | | 3.47 | 1.34 | 0.23 |
| poachers | | | | | | 0.05 | | 0.02 |
| mesopelagic fishes | 0.16 | 0.65 | 0.24 | | | | | 0.01 |
| blacktail snailfish | | | | | | | | 0.83 |
| other snailfishes | 0.60 | 1.39 | 1.61 | | 11.42 | 6.08 | | 4.57 |
| Pacific grenadier | | 17.08 | | | | | | |
| giant grenadier | 6784.38 | 1786.05 | 1802.11 | 186.75 | | 2173.42 | 47.18 | 2803.55 |
| popeye grenadier | 25.42 | 25.87 | 3.08 | | | | | 31.14 |
| Pacific cod | | | | | 9.06 | | 6.12 | |
| walleye pollock | | 0.22 | 4.40 | | 4.44 | 0.61 | 9.26 | |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | | 0.13 | 14.39 | 32.64 | 3.19 | 8.10 | 0.93 |
| spinyhead sculpin | | | | | | | | |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | | | | 3.83 | 4.28 | | 8.04 | 3.57 |
| other sculpins | | | 0.92 | 0.06 | 0.38 | 0.35 | | |
| twoline eelpout | | | | | | | | 1.77 |
| western eelpout | | | | | | | | 0.12 |
| ebony eelpout | | | | | | 23.28 | | |
| Bering eelpout | | | | | | | 0.34 | 0.96 |
| other eelpouts | | | | | | | | |
| shortspine thornyhead | | | 6.06 | | | 1.32 | | 21.46 |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | | | | |
| Pacific ocean perch | | | | 0.50 | 23.84 | | 9.00 | |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | 1.95 | | 5.17 | |
| other shrimps | | 0.01 | | | 0.49 | 0.02 | 0.01 | |
| grooved Tanner crab | | | | 1.12 | | 1.06 | | 1.28 |
| Tanner crab | | | | | | | 0.28 | |
| triangle Tanner crab | 2.75 | 68.67 | 5.04 | | | 0.40 | | 5.38 |
| snow crab | | | | 0.03 | | | | |
| scarlet king crab | 3.74 | 7.35 | 8.70 | | | | | |
| golden king crab | | | | | 0.78 | 0.05 | | |
| hermit crabs | 0.06 | | | 0.12 | | | | 0.20 |
| other crabs | | 0.01 | | | | | | |
| jellyfishes | | | 0.20 | | | | 1.57 | |
| coral & anemones | | 1.21 | 3.62 | 0.59 | 24.66 | 3.26 | 153.42 | 22.23 |
| gastropods | | 0.19 | | 0.11 | 0.01 | 0.24 | 1.58 | 0.81 |
| clams | | | | | | | | |
| giant octopus | | | | | | 3.48 | | |
| other octopus | | 2.33 | | | | | 0.07 | 0.13 |
| magistrate armhook squid | | | | 3.14 | 1.97 | | 1.31 | |
| other squid | | | | | | | 0.20 | |
| seastars, brittlestars, cucumbers | 4.08 | 32.74 | 1.78 | 1.42 | 14.82 | 2.46 | 2.56 | 7.86 |
| sponges | 0.07 | 0.42 | 0.13 | 0.63 | 16.92 | 2.42 | | 1.69 |
| other inverts | | 0.08 | 1.54 | 0.01 | 0.07 | | 0.14 | 0.59 |
| **Haul total weight (kg)** | **6841.00** | **2038.00** | **1896.00** | **566.19** | **985.66** | **4410.00** | **776.56** | **3020.00** |

Appendix C. - - Haul log.

| Haul | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 23-JUN-12 | 23-JUN-12 | 23-JUN-12 | 23-JUN-12 | 23-JUN-12 | 24-JUN-12 | 24-JUN-12 | 24-JUN-12 |
| Start latitude (N) | 59.9514 | 59.9307 | 59.8717 | 59.8004 | 59.8112 | 59.6935 | 59.6227 | 58.9384 |
| Start longitude (W) | -178.9334 | -178.9433 | -178.8202 | -178.6844 | -178.7402 | -178.5279 | -178.4353 | -178.0168 |
| End latitude (N) | 59.9330 | 59.9127 | 59.8552 | 59.7844 | 59.8262 | 59.7011 | 59.6388 | 58.9416 |
| End longitude (W) | -178.9141 | -178.9252 | -178.7998 | -178.6610 | -178.7695 | -178.5384 | -178.4594 | -178.0581 |
| Stratum | 61 | 62 | 61 | 61 | 62 | 62 | 61 | 51 |
| Station ID | 61-10 | 62-08 | 61-09 | 61-08 | 62-07 | 62-06 | 61-07 | 51-02 |
| Duration (hour) | 0.52 | 0.51 | 0.52 | 0.51 | 0.51 | 0.24 | 0.49 | 0.55 |
| Distance fished (km) | 2.33 | 2.27 | 2.18 | 2.21 | 2.48 | 1.04 | 2.26 | 2.45 |
| Net width (m) | 16.57 | 16.23 | 16.37 | 15.93 | 15.96 | 16.38 | 15.85 | 14.86 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.20 | 0.00 | 0.00 |
| Bottom depth (m) | 288 | 418 | 247 | 217 | 449 | 516 | 318 | 218 |
| Surface temperature (°C) | 2.9 | 2 | 2.4 | 4.6 | 4.3 | 4.3 | 4 | 5.3 |
| Bottom temperature (°C) | 2.2 | 3.8 | 2.2 | 2.2 | 3.7 | 3.7 | 3 | 2.1 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | 18.59 | 13.98 | 17.50 | 1.78 | 23.50 | | 7.82 | |
| mud skate | 2.68 | 0.72 | | | | | | |
| roughtail skate | | | | | | | | |
| Alaska skate | 179.16 | 67.80 | 345.62 | 44.16 | 663.18 | 36.90 | 123.02 | 73.90 |
| Aleutian skate | 2.78 | 8.97 | 4.56 | | 6.56 | 40.66 | 115.05 | 12.60 |
| Commander skate | | 6.77 | | | 15.89 | 5.93 | | |
| whiteblotched skate | | 13.18 | 11.41 | | 10.78 | | | |
| whitebrow skate | | 24.15 | 2.01 | | 5.90 | | 2.48 | |
| other elasmobranchs & eggs | 0.02 | 0.05 | 0.05 | 0.11 | 0.22 | | 0.17 | 0.42 |
| arrowtooth flounder | 100.66 | 558.36 | 45.05 | 70.16 | 61.17 | 122.54 | 61.06 | 90.44 |
| Kamchatka flounder | 13.36 | 51.64 | 17.40 | 14.79 | 11.36 | 48.24 | 27.18 | 14.23 |
| Greenland turbot | 32.58 | 269.62 | 43.71 | 28.62 | 54.30 | 7.72 | 24.06 | 0.27 |
| Pacific halibut | 1.50 | 33.37 | 7.22 | 5.10 | 35.10 | | 10.96 | 94.59 |
| flathead sole | 13.62 | 25.66 | 16.92 | 39.30 | 11.22 | | 58.32 | 57.30 |
| rex sole | 4.72 | 7.52 | 11.13 | 4.14 | 2.46 | 1.69 | 0.98 | 18.48 |
| other flatfishes | | | | 1.05 | | | | 2.58 |
| sablefish | | | | | | | | |
| Other fishes | | 0.23 | | | 1.13 | 0.12 | | 10.03 |
| poachers | 0.10 | 0.03 | 0.19 | 2.55 | 0.12 | 0.22 | 0.16 | 0.82 |
| mesopelagic fishes | | 0.03 | | | 0.05 | | | |
| blacktail snailfish | | 11.41 | | | 1.56 | 1.95 | | |
| other snailfishes | 23.58 | 1.28 | 9.17 | 13.70 | 0.88 | 0.56 | 2.95 | 0.39 |
| Pacific grenadier | | | | | | | | |
| giant grenadier | 10.26 | 19.46 | | | 379.23 | 179.00 | | |
| popeye grenadier | | 0.36 | | | 0.87 | 5.84 | | |
| Pacific cod | 13.10 | | 22.18 | 24.85 | | | 10.66 | 31.00 |
| walleye pollock | 117.50 | 2.68 | 362.58 | 534.94 | | | 75.02 | 60.74 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | 6.24 | 3.39 | 2.39 | 0.82 | 6.42 | 0.06 | 1.74 | |
| spinyhead sculpin | 0.15 | 0.19 | 1.10 | 1.24 | 0.44 | | 0.34 | |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | 19.48 | 22.72 | 5.62 | 64.32 | 31.62 | 0.21 | 12.34 | 31.22 |
| other sculpins | | | 0.26 | 11.28 | 0.01 | | | 1.70 |
| twoline eelpout | | 2.92 | | | | 0.62 | | |
| western eelpout | | 0.18 | | | 3.28 | 4.14 | | |
| ebony eelpout | | | | | | | | |
| Bering eelpout | 0.20 | 0.23 | 0.10 | 0.06 | 0.95 | 0.23 | 0.73 | |
| other eelpouts | | | | | 0.004 | | | |
| shortspine thornyhead | | 5.74 | | | 16.46 | 46.83 | 1.44 | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | 1.85 | | | 1.04 | | | |
| Pacific ocean perch | 10.19 | | 1.50 | | | | 10.67 | 85.62 |
| shortraker rockfish | | 4.70 | | | 2.37 | 8.84 | 2.42 | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | 0.10 | 1.19 | 9.59 | 6.44 | 0.23 | | 9.18 | 0.55 |
| other shrimps | | 4.34 | | 0.01 | 2.55 | 0.18 | | |
| grooved Tanner crab | | | | | | 0.52 | | |
| Tanner crab | | 0.57 | 0.45 | 3.85 | 0.28 | | | 0.93 |
| triangle Tanner crab | | | | | | | | |
| snow crab | 0.03 | | | 145.62 | | | | |
| scarlet king crab | | | | | | | | |
| golden king crab | | 0.40 | | | 0.35 | | 0.41 | |
| hermit crabs | 0.27 | 1.93 | 1.51 | 1.27 | 1.44 | 2.57 | 13.95 | 0.10 |
| other crabs | | | | | | | | 0.05 |
| jellyfishes | 1.07 | | | 0.34 | 0.29 | | | 0.11 |
| coral & anemones | 3.03 | 32.29 | 2.05 | 0.90 | 6.16 | 1.38 | 25.26 | 3.92 |
| gastropods | 1.03 | 2.34 | 2.07 | 0.87 | 1.01 | 2.21 | 13.37 | 0.43 |
| clams | | | | | | | | |
| giant octopus | 3.34 | 3.27 | | | 0.64 | | 3.82 | |
| other octopus | | | | | 0.23 | | 0.39 | |
| magistrate armhook squid | 2.43 | 11.46 | 2.29 | 0.27 | 3.08 | 1.36 | 10.04 | 0.63 |
| other squid | 1.59 | | 0.41 | 0.39 | 0.06 | | | 0.06 |
| seastars, brittlestars, cucumbers | 2.53 | 12.53 | 1.50 | 0.57 | 34.91 | 4.95 | 69.11 | 2.61 |
| sponges | | 0.05 | 0.06 | 0.70 | 0.53 | | | 1.77 |
| other inverts | 0.14 | 0.44 | 2.68 | 0.02 | 2.31 | 0.71 | 4.44 | 0.14 |
| **Haul total weight (kg)** | **586.04** | **1230.00** | **950.27** | **1024.23** | **1402.14** | **526.16** | **699.53** | **597.64** |

Appendix C. - - Haul log.

| Haul | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 24-JUN-12 | 25-JUN-12 | 25-JUN-12 | 25-JUN-12 | 25-JUN-12 | 25-JUN-12 | 26-JUN-12 | 26-JUN-12 |
| Start latitude (N) | 58.8949 | 58.9090 | 58.7979 | 58.7810 | 58.6531 | 58.6266 | 58.6282 | 58.5042 |
| Start longitude (W) | -178.0787 | -178.1795 | -178.1002 | -177.9122 | -177.8004 | -177.7457 | -177.9629 | -177.8765 |
| End latitude (N) | 58.9085 | 58.9228 | 58.8153 | 58.7894 | 58.6514 | 58.6278 | 58.6414 | 58.4959 |
| End longitude (W) | -178.1080 | -178.2025 | -178.1093 | -177.9431 | -177.7770 | -177.7729 | -177.9611 | -177.9059 |
| Stratum | 52 | 54 | 53 | 52 | 53 | 54 | 55 | 55 |
| Station ID | 52-04 | 54-07 | 53-04 | 52-03 | 53-03 | 54-01 | 55-07 | 55-02 |
| Duration (hour) | 0.54 | 0.47 | 0.50 | 0.53 | 0.30 | 0.38 | 0.34 | 0.54 |
| Distance fished (km) | 2.31 | 2.08 | 2.14 | 2.03 | 1.39 | 1.61 | 1.50 | 1.99 |
| Net width (m) | 16.87 | 17.11 | 17.07 | 16.72 | 17.06 | 18.34 | 17.17 | 16.81 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.20 | 6.10 | 0.00 |
| Bottom depth (m) | 427 | 849 | 636 | 503 | 707 | 820 | 1039 | 1136 |
| Surface temperature (°C) | 5.7 | 5.4 | 5.9 | 5 | 6.1 | 5.8 | 6.7 | 6.2 |
| Bottom temperature (°C) | 3.8 | 3.2 | 3.6 | 3.7 | 3.4 | 3.2 | 2.9 | 2.6 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | | | | | | | | |
| mud skate | | | | | | | | |
| roughtail skate | | 3.49 | | | 3.14 | 3.89 | 6.48 | |
| Alaska skate | | | | | | | | |
| Aleutian skate | | | 3.76 | 17.97 | | | | |
| Commander skate | | | 14.22 | | | | | |
| whiteblotched skate | | | | | | | | |
| whitebrow skate | | | | 4.61 | 0.63 | | | |
| other elasmobranchs & eggs | 0.07 | | 0.05 | 0.02 | 0.01 | | 0.01 | 0.02 |
| arrowtooth flounder | 12.62 | | | | | | | |
| Kamchatka flounder | 5.44 | | 6.54 | 17.58 | | | | |
| Greenland turbot | 11.42 | 20.67 | 14.00 | 17.30 | | | | |
| Pacific halibut | | | | | | | | |
| flathead sole | 112.22 | | | 0.30 | | | | |
| rex sole | 60.56 | | | 6.36 | | | | |
| other flatfishes | | | 3.42 | 0.00 | 2.25 | | | |
| sablefish | | | | 3.82 | | | 7.02 | |
| Other fishes | | | | | | 1.33 | | |
| poachers | | | 0.01 | 0.03 | | | | |
| mesopelagic fishes | | | 0.32 | 0.02 | 0.15 | 0.76 | 0.72 | 0.44 |
| blacktail snailfish | | 0.08 | 0.52 | 2.48 | 0.29 | 0.15 | | |
| other snailfishes | 1.38 | 0.44 | 0.01 | 0.31 | 0.05 | 0.05 | 0.05 | 0.39 |
| Pacific grenadier | | 10.46 | | | 5.54 | 3.92 | 15.10 | 20.50 |
| giant grenadier | 61.18 | 552.62 | 907.24 | 1577.32 | 700.80 | 483.16 | 576.86 | 1616.63 |
| popeye grenadier | | 231.41 | 42.69 | 0.45 | 43.92 | 47.14 | 48.18 | 123.53 |
| Pacific cod | | | | | | | | |
| walleye pollock | | | | | 0.58 | | | |
| other grenadiers & cods | | | | | | | | 3.43 |
| darkfin sculpin | | | | | | | | |
| spinyhead sculpin | 0.09 | | | | | | | |
| blob sculpin | | | | | | | 0.12 | 3.94 |
| bigmouth sculpin | | | | | | | | |
| other sculpins | | | | 0.01 | | | | |
| twoline eelpout | | | | | | | | |
| western eelpout | | | | | | | | |
| ebony eelpout | | | | 1.10 | | | | |
| Bering eelpout | | | 0.06 | 0.19 | 0.04 | | | |
| other eelpouts | | 0.31 | 0.07 | | | 0.12 | | |
| shortspine thornyhead | 54.86 | 2.02 | 30.98 | 56.12 | 18.94 | | | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | 2.18 | | | | | | | |
| Pacific ocean perch | | | | | | | | |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | | | | |
| other shrimps | 0.36 | | | | | 0.04 | 0.03 | |
| grooved Tanner crab | 0.33 | 0.26 | 0.84 | 1.89 | 0.79 | 0.37 | 0.84 | 0.27 |
| Tanner crab | | | | | | | | |
| triangle Tanner crab | | 0.16 | 0.97 | | 0.51 | 3.18 | 18.75 | 2.40 |
| snow crab | | | | | | | | |
| scarlet king crab | | 1.60 | | | | | | |
| golden king crab | 1.19 | | | | | | | |
| hermit crabs | 0.32 | 0.04 | 0.22 | 0.25 | 0.14 | 0.05 | | |
| other crabs | | | | | | | 0.01 | 0.68 |
| jellyfishes | | 0.16 | 0.17 | 0.50 | 0.69 | | 0.15 | |
| coral & anemones | 47.94 | 0.38 | | 3.26 | 0.32 | 1.14 | 0.22 | 34.60 |
| gastropods | 0.40 | 0.49 | 0.99 | 0.14 | 0.36 | 0.19 | 0.08 | |
| clams | | | | | | | | |
| giant octopus | | | | | | | | |
| other octopus | 5.41 | 2.16 | 0.14 | 1.89 | | 0.40 | 4.80 | 3.28 |
| magistrate armhook squid | 0.90 | | | | | | | |
| other squid | | | | | | | 0.15 | |
| seastars, brittlestars, cucumbers | 20.44 | 3.79 | 7.91 | 12.83 | 3.28 | 2.04 | 4.48 | 20.42 |
| sponges | | 9.34 | 0.67 | | 0.03 | 0.09 | 0.14 | |
| other inverts | 0.37 | 0.01 | 0.42 | 1.25 | 0.06 | | 1.45 | 5.48 |
| **Haul total weight (kg)** | **399.67** | **839.90** | **1036.22** | **1728.00** | **782.53** | **548.02** | **685.63** | **1836.00** |

Appendix C. - - Haul log.

| Haul | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 26-JUN-12 | 26-JUN-12 | 27-JUN-12 | 27-JUN-12 | 27-JUN-12 | 27-JUN-12 | 27-JUN-12 | 28-JUN-12 |
| Start latitude (N) | 58.5881 | 58.5859 | 58.5360 | 58.4006 | 58.2695 | 58.3624 | 58.3780 | 58.0712 |
| Start longitude (W) | -177.6788 | -176.4544 | -176.0788 | -175.5898 | -175.4563 | -175.3001 | -175.0674 | -175.5080 |
| End latitude (N) | 58.6011 | 58.5852 | 58.5389 | 58.3851 | 58.2654 | 58.3567 | 58.3575 | 58.0659 |
| End longitude (W) | -177.6880 | -176.4928 | -176.1180 | -175.5618 | -175.4216 | -175.3345 | -175.0694 | -175.4731 |
| Stratum | 55 | 51 | 52 | 41 | 42 | 41 | 42 | 45 |
| Station ID | 55-01 | 51-07 | 52-01 | 41-10 | 42-01 | 41-09 | 42-04 | 45-01 |
| Duration (hour) | 0.43 | 0.47 | 0.49 | 0.50 | 0.49 | 0.51 | 0.50 | 0.55 |
| Distance fished (km) | 1.62 | 2.25 | 2.35 | 2.41 | 2.10 | 2.16 | 2.35 | 2.17 |
| Net width (m) | 15.24 | 15.83 | 16.25 | 15.20 | 15.53 | 15.57 | 15.88 | 16.08 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 1012 | 256 | 457 | 286 | 576 | 273 | 574 | 1033 |
| Surface temperature (°C) | 6.3 | 5.3 | 6.3 | 5.9 | 5.9 | 6.1 | 6 | 6 |
| Bottom temperature (°C) | 2.9 | 2.9 | 3.8 | 3.1 | 3.6 | 3.6 | 3.5 | 2.9 |
| Pacific sleeper shark | | 13.20 | | | | | | |
| Bering skate | | 25.02 | 12.06 | 2.62 | | 15.44 | | |
| mud skate | | | | 1.90 | | | | |
| roughtail skate | 9.34 | | | | | | | |
| Alaska skate | | | | 10.84 | | 22.34 | | |
| Aleutian skate | | 12.16 | 73.14 | 10.96 | 26.42 | 44.02 | 19.22 | |
| Commander skate | | | 4.84 | | 18.16 | | 23.82 | |
| whiteblotched skate | | 4.42 | 2.76 | | | | | |
| whitebrow skate | 0.29 | | 9.66 | | 4.33 | | 10.47 | |
| other elasmobranchs & eggs | | 0.03 | 0.02 | 0.08 | 0.02 | 0.13 | | |
| arrowtooth flounder | | 79.56 | 137.66 | 30.50 | 2.13 | 38.24 | 2.23 | |
| Kamchatka flounder | | 1.94 | 63.50 | 1.00 | 17.30 | 8.62 | 34.36 | |
| Greenland turbot | | 1.32 | 45.73 | 0.74 | 5.41 | 0.52 | 35.26 | |
| Pacific halibut | | 5.45 | 18.50 | 14.83 | | 262.86 | | |
| flathead sole | | 11.54 | 91.50 | 26.70 | | 18.73 | | |
| rex sole | | 1.82 | 10.84 | 54.10 | | 183.57 | | |
| other flatfishes | | | | | | 0.95 | | |
| sablefish | | | 5.83 | | 8.08 | | 15.88 | |
| Other fishes | 3.74 | 5.24 | | 0.15 | | | 0.40 | 5.08 |
| poachers | | 1.66 | 0.21 | 0.53 | 0.03 | 0.60 | 0.20 | |
| mesopelagic fishes | 0.42 | | 0.05 | | 0.13 | | | 0.39 |
| blacktail snailfish | | | 4.68 | | 0.03 | | 2.02 | |
| other snailfishes | 0.17 | 2.16 | 5.48 | 0.28 | 0.20 | 1.07 | 0.55 | |
| Pacific grenadier | 18.88 | | | | | | | 21.70 |
| giant grenadier | 345.61 | | 956.06 | | 811.15 | | 2368.69 | 299.90 |
| popeye grenadier | 57.36 | | 0.21 | | 64.03 | | 46.62 | 234.84 |
| Pacific cod | | 13.16 | | | | 3.32 | | |
| walleye pollock | | 38.74 | 2.23 | 216.30 | | 17.03 | | |
| other grenadiers & cods | 1.16 | | | | | | | 1.26 |
| darkfin sculpin | | 0.31 | 3.54 | | | 0.09 | | |
| spinyhead sculpin | | 0.79 | 0.45 | 0.18 | | | | |
| blob sculpin | 12.43 | | | | | | | |
| bigmouth sculpin | | 6.24 | 19.24 | 4.22 | | 11.09 | | |
| other sculpins | | | 0.10 | | | 0.03 | 0.01 | |
| twoline eelpout | | | 12.92 | | | | | |
| western eelpout | | | | | | | 1.08 | 0.004 |
| ebony eelpout | | | | | | | 5.58 | |
| Bering eelpout | | | | | 0.11 | | | |
| other eelpouts | | | | | | | | |
| shortspine thornyhead | | | 119.75 | | 13.56 | | 97.94 | 0.67 |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | 1.40 | | | | | | |
| Pacific ocean perch | | 908.57 | 0.66 | 31.02 | | 750.87 | | |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | 0.63 | 0.24 | 0.64 | | 3.04 | | |
| other shrimps | 0.03 | 3.42 | 3.44 | | 0.002 | | | 0.35 |
| grooved Tanner crab | 1.34 | | 14.80 | | 0.10 | | 4.59 | |
| Tanner crab | | | 0.02 | | | | | |
| triangle Tanner crab | 11.65 | | 0.12 | | | | | 3.70 |
| snow crab | | | 2.84 | | | | | |
| scarlet king crab | 0.02 | | | | | | 1.76 | |
| golden king crab | | | 0.65 | | | | | |
| hermit crabs | | 0.03 | 0.02 | | | | 0.04 | |
| other crabs | | 0.02 | | 0.03 | | | | |
| jellyfishes | 0.42 | | | | 0.51 | | | 0.12 |
| coral & anemones | 4.52 | 2.43 | 35.27 | 2.82 | 0.08 | 4.41 | 21.69 | 20.16 |
| gastropods | 0.32 | 0.90 | 0.84 | 0.09 | 0.04 | 0.64 | 0.79 | 0.33 |
| clams | | | | | | | | |
| giant octopus | | 10.32 | 3.17 | | | | | |
| other octopus | 0.88 | | 0.47 | | | | 1.15 | 2.53 |
| magistrate armhook squid | | 2.03 | 1.75 | 0.31 | | | 0.29 | |
| other squid | | 0.09 | | 0.34 | | 0.11 | | |
| seastars, brittlestars, cucumbers | 36.63 | 8.97 | 33.91 | 21.21 | 59.11 | 77.04 | 143.23 | 45.13 |
| sponges | 2.71 | 0.31 | 0.76 | | | | | |
| other inverts | 203.22 | 0.11 | 0.07 | 0.01 | 1.80 | 1.25 | 0.12 | 89.97 |
| **Haul total weight (kg)** | **711.14** | **1164.00** | **1700.00** | **432.40** | **1032.72** | **1466.00** | **2838.00** | **726.13** |

Appendix C. - - Haul log.

| Haul | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 28-JUN-12 | 28-JUN-12 | 28-JUN-12 | 29-JUN-12 | 29-JUN-12 | 29-JUN-12 | 29-JUN-12 | 29-JUN-12 |
| Start latitude (N) | 58.1038 | 58.1271 | 58.2573 | 58.5518 | 58.5460 | 58.5843 | 58.6147 | 58.6594 |
| Start longitude (W) | -175.5751 | -175.5502 | -175.5137 | -174.7898 | -174.8652 | -175.1079 | -175.0707 | -174.8707 |
| End latitude (N) | 58.1137 | 58.1422 | 58.2776 | 58.5584 | 58.5298 | 58.5902 | 58.6212 | 58.6586 |
| End longitude (W) | -175.5870 | -175.5738 | -175.5199 | -174.8273 | -174.8453 | -175.0908 | -175.0307 | -174.9073 |
| Stratum | 45 | 44 | 43 | 43 | 44 | 43 | 42 | 41 |
| Station ID | 45-05 | 44-03 | 43-04 | 43-05 | 44-02 | 43-02 | 42-08 | 41-07 |
| Duration (hour) | 0.31 | 0.57 | 0.50 | 0.56 | 0.52 | 0.26 | 0.52 | 0.48 |
| Distance fished (km) | 1.39 | 2.19 | 2.40 | 2.31 | 2.19 | 1.21 | 2.46 | 2.18 |
| Net width (m) | 14.34 | 16.21 | 16.36 | 16.06 | 16.54 | 16.51 | 15.70 | 15.31 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 1023 | 904 | 648 | 781 | 961 | 678 | 445 | 254 |
| Surface temperature (°C) | 5.9 | 6 | 6.4 | 5.8 | 5.2 | 5.4 | 5.6 | 6.3 |
| Bottom temperature (°C) | 2.9 | 3.1 | 3.4 | 3.2 | 2.9 | 3.4 | 3.8 | 3.2 |
| Pacific sleeper shark | | | | | | | 52.69 | |
| Bering skate | | | | | | | 17.26 | 4.45 |
| mud skate | | | | | | | | |
| roughtail skate | | 6.88 | 3.24 | 8.90 | 2.82 | | | |
| Alaska skate | | | | | | | | 7.94 |
| Aleutian skate | | | 20.24 | 6.06 | 0.20 | 9.61 | 194.16 | 21.74 |
| Commander skate | | | 17.18 | 15.80 | | 8.84 | | |
| whiteblotched skate | | | 1.82 | | | | 2.64 | |
| whitebrow skate | | | 2.18 | 1.01 | 0.02 | | 5.68 | |
| other elasmobranchs & eggs | 0.05 | 0.07 | | 0.07 | | 0.18 | | 0.14 |
| arrowtooth flounder | | | | | | | 115.50 | 284.79 |
| Kamchatka flounder | | | 14.16 | | | 8.85 | 71.40 | 5.83 |
| Greenland turbot | | | 7.40 | 8.83 | | 11.35 | 21.48 | 1.74 |
| Pacific halibut | | | | | | | 33.26 | 10.41 |
| flathead sole | | | | | | | 9.42 | 5.53 |
| rex sole | | | | | | | 34.86 | 72.04 |
| other flatfishes | | 0.14 | 11.06 | | | | | |
| sablefish | | | | | | 11.10 | 6.78 | |
| Other fishes | 0.03 | 1.98 | | 2.62 | 1.12 | 0.33 | | 3.56 |
| poachers | | | 0.05 | 0.25 | | | 0.13 | 0.80 |
| mesopelagic fishes | 0.35 | 0.70 | 0.14 | 0.02 | 0.19 | 0.04 | 0.01 | |
| blacktail snailfish | | | | 0.51 | | | | |
| other snailfishes | 0.13 | 1.11 | 0.01 | 1.28 | 0.48 | 0.28 | | |
| Pacific grenadier | 14.92 | 8.78 | 0.20 | | 0.72 | | | |
| giant grenadier | 160.24 | 886.04 | 750.32 | 2319.43 | 268.16 | 995.43 | 2115.74 | 13.24 |
| popeye grenadier | 34.38 | 54.40 | 96.14 | 160.74 | 92.70 | 178.79 | 0.26 | |
| Pacific cod | | | | | | | | 11.50 |
| walleye pollock | | | | 0.71 | | | 9.90 | 111.59 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | | | | | | 0.08 | 0.26 |
| spinyhead sculpin | | | | | | | 0.13 | 0.34 |
| blob sculpin | 3.97 | 5.00 | | | 1.09 | | | |
| bigmouth sculpin | | | | | | | 4.24 | 23.54 |
| other sculpins | | | | | | | 0.02 | |
| twoline eelpout | | | | | 0.53 | | | |
| western eelpout | | 0.07 | | | | | | |
| ebony eelpout | | | 14.04 | | 0.04 | | | |
| Bering eelpout | | | | | | | | |
| other eelpouts | | 0.01 | | | 0.23 | | | |
| shortspine thornyhead | | | 27.10 | | | 9.19 | 50.12 | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | | | | 1.40 |
| Pacific ocean perch | | | | | | | 0.87 | 55.14 |
| shortraker rockfish | | | | | | | 91.55 | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | | | | |
| other shrimps | 0.43 | 1.54 | | 0.02 | 0.04 | | 2.76 | 1.04 |
| grooved Tanner crab | | | | 2.51 | 1.82 | 0.67 | 2.54 | |
| Tanner crab | | | | | | | | |
| triangle Tanner crab | 1.58 | 2.10 | | 0.13 | 2.48 | 0.27 | | |
| snow crab | | | | | | | | |
| scarlet king crab | | | | 0.29 | 1.70 | | | |
| golden king crab | | | | | | | | |
| hermit crabs | | 0.04 | | 0.62 | 0.63 | 0.19 | 0.80 | |
| other crabs | | | | | 1.40 | | | |
| jellyfishes | 1.22 | 0.60 | 0.03 | 4.75 | 30.35 | 1.29 | 2.95 | 5.46 |
| coral & anemones | 0.53 | 20.95 | 0.07 | 1.01 | 9.88 | 10.16 | 3.32 | 2.90 |
| gastropods | 0.51 | 0.98 | | 2.23 | 4.61 | 3.77 | 2.94 | 0.11 |
| clams | | 0.002 | | | | | | |
| giant octopus | | | | | | | | |
| other octopus | 5.57 | 4.93 | 0.59 | 0.30 | 0.01 | 0.48 | 1.83 | |
| magistrate armhook squid | | | | | | | 1.54 | |
| other squid | | | 0.18 | | | | | |
| seastars, brittlestars, cucumbers | 10.84 | 13.35 | 5.83 | 31.72 | 35.75 | 8.69 | 6.86 | 4.07 |
| sponges | | | | 0.18 | 5.17 | | 0.08 | 0.40 |
| other inverts | 6.23 | 61.61 | | | 0.33 | 0.46 | 0.20 | 0.05 |
| **Haul total weight (kg)** | **240.95** | **1071.28** | **971.97** | **2570.00** | **462.48** | **1260.00** | **2864.00** | **649.99** |

Appendix C. - - Haul log.

| Haul | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 30-JUN-12 | 30-JUN-12 | 30-JUN-12 | 30-JUN-12 | 04-JUL-12 | 04-JUL-12 | 04-JUL-12 | 05-JUL-12 |
| Start latitude (N) | 57.1587 | 57.2111 | 57.1528 | 57.1346 | 54.4464 | 54.5222 | 54.8091 | 55.5755 |
| Start longitude (W) | -173.9649 | -173.9214 | -173.9131 | -173.8026 | -167.1485 | -167.3026 | -167.3976 | -168.7860 |
| End latitude (N) | 57.1387 | 57.1899 | 57.1344 | 57.1551 | 54.4361 | 54.5414 | 54.7919 | 55.5654 |
| End longitude (W) | -173.9490 | -173.9236 | -173.8973 | -173.8176 | -167.1197 | -167.3186 | -167.3795 | -168.7595 |
| Stratum | 33 | 32 | 32 | 31 | 12 | 12 | 12 | 24 |
| Station ID | 33-08 | 32-06 | 32-07 | 31-12 | 12-03 | 12-31 | 12-48 | 24-01 |
| Duration (hour) | 0.50 | 0.53 | 0.53 | 0.54 | 0.48 | 0.54 | 0.51 | 0.54 |
| Distance fished (km) | 2.43 | 2.45 | 2.27 | 2.50 | 2.22 | 2.41 | 2.25 | 2.09 |
| Net width (m) | 17.18 | 16.16 | 15.47 | 15.30 | 17.50 | 17.59 | 17.44 | 18.61 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 634 | 413 | 462 | 232 | 533 | 565 | 482 | 894 |
| Surface temperature (°C) | 6.6 | 6.7 | 6.6 | 6.3 | 6.6 | 6.5 | 6.4 | 6.2 |
| Bottom temperature (°C) | 3.5 | 3.8 | 3.7 | 3.1 | 3.6 | 3.6 | 3.6 | 3.1 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | | 1.03 | 4.86 | 2.24 | 2.60 | 2.16 | 2.12 | |
| mud skate | | 2.84 | 1.42 | 2.16 | | | | |
| roughtail skate | | | | | | | | 8.36 |
| Alaska skate | | | | 5.55 | | | | |
| Aleutian skate | 19.48 | 2.97 | 160.06 | 54.50 | 8.98 | 1.84 | 3.02 | 5.91 |
| Commander skate | 7.59 | 12.68 | | | | | | |
| whiteblotched skate | | | | | | 5.26 | | |
| whitebrow skate | 2.86 | | 4.65 | | 9.44 | | | 4.64 |
| other elasmobranchs & eggs | 0.08 | | | | | | | 0.02 |
| arrowtooth flounder | | 46.36 | 5.10 | 74.27 | | | 1.26 | |
| Kamchatka flounder | 18.59 | 42.19 | 50.48 | 5.46 | 8.41 | 38.30 | 34.56 | 4.60 |
| Greenland turbot | 16.66 | 5.87 | 13.62 | | 22.92 | 28.04 | 6.28 | 12.10 |
| Pacific halibut | | | 11.09 | 8.48 | | | | |
| flathead sole | | 99.98 | 140.52 | 41.36 | | | | |
| rex sole | | 36.10 | 27.76 | 19.29 | | | 2.20 | |
| other flatfishes | | | | 0.67 | | 3.90 | | 1.49 |
| sablefish | 22.92 | | 2.23 | | 22.34 | 13.88 | 10.26 | 13.32 |
| Other fishes | 0.50 | 0.53 | 0.37 | | 0.64 | | | |
| poachers | 0.22 | 0.01 | | 0.16 | 0.07 | 0.18 | 0.07 | 0.20 |
| mesopelagic fishes | 0.15 | 0.10 | 0.06 | | 0.10 | 0.13 | 0.08 | 0.37 |
| blacktail snailfish | 1.89 | | | | | | | 1.95 |
| other snailfishes | 0.01 | | 0.32 | 0.09 | | | | 3.67 |
| Pacific grenadier | | | | | | | | |
| giant grenadier | 572.80 | 620.42 | 1169.82 | | 279.70 | 498.56 | 261.90 | 688.18 |
| popeye grenadier | 14.57 | | | | | | | 151.74 |
| Pacific cod | | | | 27.62 | | | | |
| walleye pollock | 0.91 | 2.55 | | 12.38 | | | | |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | | | 0.02 | | 0.73 | 0.30 | |
| spinyhead sculpin | | | | | 0.07 | 0.01 | | |
| blob sculpin | | | | | | | | 0.004 |
| bigmouth sculpin | | | 0.59 | | | | | |
| other sculpins | | 0.02 | | | | 0.01 | | 0.002 |
| twoline eelpout | 5.86 | | | | | | | 10.46 |
| western eelpout | | | | | 46.64 | 15.84 | 22.18 | 10.74 |
| ebony eelpout | 0.23 | | | | | | | |
| Bering eelpout | 0.21 | 0.33 | 0.92 | | | | | 0.73 |
| other eelpouts | | | | | | 0.004 | | 0.04 |
| shortspine thornyhead | 37.30 | 9.50 | 14.56 | | 33.42 | 40.24 | 69.20 | 36.60 |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | | | | |
| Pacific ocean perch | | | | 5510.88 | | | | |
| shortraker rockfish | | 9.32 | 4.31 | | | | | |
| other rockfish | | | | | | | | 1.00 |
| Alaskan pink shrimp | | | | | | | | |
| other shrimps | | 0.43 | 0.11 | | 0.45 | 0.38 | 0.38 | 2.30 |
| grooved Tanner crab | 4.61 | 1.05 | 0.31 | | | | | 27.34 |
| Tanner crab | | | | | | | | |
| triangle Tanner crab | 0.10 | | | | | | | 0.07 |
| snow crab | | | | | | | | |
| scarlet king crab | | | | | | | | |
| golden king crab | | | | 3.31 | 4.84 | | | |
| hermit crabs | 0.25 | 0.02 | 0.01 | | | | 0.18 | |
| other crabs | | | | | | | | |
| jellyfishes | 0.14 | 0.44 | 0.15 | 0.11 | | 0.12 | | 0.11 |
| coral & anemones | 0.03 | 3.47 | 3.21 | 0.16 | | | 0.26 | 0.14 |
| gastropods | 0.61 | | | 0.66 | 1.38 | 1.79 | 0.54 | 0.45 |
| clams | | | | | | | | |
| giant octopus | | | 1.61 | | | | | |
| other octopus | 0.39 | 1.11 | 2.05 | | 0.57 | 0.18 | 1.46 | 0.80 |
| magistrate armhook squid | | 0.28 | 0.53 | 1.01 | 2.69 | 2.71 | 3.93 | |
| other squid | | 0.06 | | 0.27 | | | | |
| seastars, brittlestars, cucumbers | 23.88 | 6.75 | 3.30 | 2.52 | 331.59 | 179.05 | 227.84 | 153.52 |
| sponges | 0.23 | | | | 70.09 | 7.48 | 10.91 | 0.53 |
| other inverts | 0.02 | 0.09 | | | 4.02 | 2.94 | 0.38 | 0.03 |
| **Haul total weight (kg)** | **753.06** | **906.50** | **1624.00** | **5773.18** | **850.97** | **843.74** | **659.31** | **1141.41** |

Appendix C. - - Haul log.

| Haul | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 05-JUL-12 | 05-JUL-12 | 05-JUL-12 | 06-JUL-12 | 06-JUL-12 | 06-JUL-12 | 06-JUL-12 | 06-JUL-12 |
| Start latitude (N) | 55.5895 | 55.8004 | 55.9394 | 56.1289 | 56.1025 | 56.1652 | 56.2095 | 56.1765 |
| Start longitude (W) | -168.8723 | -168.8584 | -168.7771 | -169.1197 | -169.2270 | -169.3980 | -169.5383 | -169.7327 |
| End latitude (N) | 55.5806 | 55.8180 | 55.9330 | 56.1253 | 56.0892 | 56.1540 | 56.2070 | 56.1833 |
| End longitude (W) | -168.8416 | -168.8774 | -168.8129 | -169.1011 | -169.2105 | -169.4205 | -169.5748 | -169.7384 |
| Stratum | 25 | 22 | 21 | 25 | 25 | 23 | 22 | 21 |
| Station ID | 25-01 | 22-01 | 21-02 | 25-03 | 25-05 | 23-09 | 22-09 | 21-06 |
| Duration (hour) | 0.54 | 0.49 | 0.52 | | 0.45 | 0.43 | 0.54 | 0.18 |
| Distance fished (km) | 2.20 | 2.32 | 2.42 | | 1.83 | 1.88 | 2.31 | 0.84 |
| Net width (m) | 17.36 | 16.81 | 15.76 | | 16.16 | 15.46 | 15.38 | 15.01 |
| Performance code | 0.00 | 0.00 | 0.00 | -5.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 1020 | 535 | 289 | 1151 | 1079 | 629 | 432 | 232 |
| Surface temperature (°C) | 6.3 | 6.1 | 6.6 | 6.3 | 6.1 | 6.4 | 6.8 | 6.5 |
| Bottom temperature (°C) | 2.9 | 3.6 | 3.2 | 2.4 | 2.5 | 3.3 | 3.5 | 3.3 |
| Pacific sleeper shark | | 8.58 | | | | | | |
| Bering skate | | | 1.16 | | | | | |
| mud skate | | | 49.62 | | | | 7.55 | |
| roughtail skate | 30.32 | | | | 0.76 | | | |
| Alaska skate | | | | | | | | |
| Aleutian skate | 8.45 | 29.32 | 2.07 | | 11.48 | 28.16 | 50.40 | 11.02 |
| Commander skate | | | | | | 30.72 | 7.48 | |
| whiteblotched skate | | 7.18 | 9.48 | | | 34.54 | 61.78 | |
| whitebrow skate | 1.62 | 2.62 | 2.48 | | | 2.21 | 4.23 | |
| other elasmobranchs & eggs | 0.29 | 0.06 | 0.02 | | 0.50 | | 0.01 | |
| arrowtooth flounder | | 64.92 | 44.56 | | | | 24.65 | 58.72 |
| Kamchatka flounder | 2.44 | 29.62 | | | 4.70 | 60.10 | 226.57 | 41.75 |
| Greenland turbot | | 233.96 | 0.63 | | 13.08 | 43.11 | 10.91 | |
| Pacific halibut | | 11.09 | | | | | 25.55 | 8.19 |
| flathead sole | | | 56.60 | | | | | 41.10 |
| rex sole | | 8.16 | 8.51 | | | | 24.40 | 3.29 |
| other flatfishes | | | | | | | | 1.08 |
| sablefish | 26.72 | 128.14 | | | 2.67 | 79.24 | | |
| Other fishes | | 0.98 | | | 0.78 | | 0.44 | 53.20 |
| poachers | | 0.06 | 0.05 | | | | 0.14 | |
| mesopelagic fishes | 0.47 | 2.35 | | | 0.09 | 0.29 | 0.02 | |
| blacktail snailfish | 0.05 | | | | | 1.14 | | |
| other snailfishes | 2.66 | 0.002 | 9.12 | | 1.25 | 1.14 | | 0.002 |
| Pacific grenadier | 0.42 | | | | 2.06 | | | |
| giant grenadier | 222.22 | 62.66 | | | 10.11 | 71.20 | 186.46 | |
| popeye grenadier | 313.70 | | | | 212.79 | | | |
| Pacific cod | | | 64.71 | | | | 4.36 | 35.50 |
| walleye pollock | | 4.75 | 329.13 | | | | 23.88 | 6.76 |
| other grenadiers & cods | 0.16 | | | | | | | |
| darkfin sculpin | 0.01 | | 1.58 | | | | 3.34 | 42.47 |
| spinyhead sculpin | | 0.05 | | | | | | |
| blob sculpin | 6.76 | | | | | | | |
| bigmouth sculpin | | | 3.28 | | | | | |
| other sculpins | 0.004 | | 0.02 | | | 0.03 | 0.02 | 0.01 |
| twoline eelpout | 2.02 | | | | | 3.73 | | |
| western eelpout | 0.09 | 14.19 | | | 17.75 | 2.12 | | |
| ebony eelpout | | 19.72 | | | 30.34 | 11.04 | 5.85 | |
| Bering eelpout | | 2.30 | 1.10 | | | 0.33 | 0.82 | |
| other eelpouts | 0.04 | 0.02 | | | 0.06 | | | |
| shortspine thornyhead | 1.46 | 92.30 | | | | 94.80 | 33.24 | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | | | 1.37 | 51.32 |
| Pacific ocean perch | | | 22.94 | | | | 0.58 | 935.58 |
| shortraker rockfish | | 1.81 | 6.30 | | | | 35.30 | |
| other rockfish | | | 1.14 | | | | | 0.27 |
| Alaskan pink shrimp | | | 1.37 | | | | | 0.05 |
| other shrimps | 0.49 | 0.13 | | | 0.07 | 0.01 | 0.14 | |
| grooved Tanner crab | | 1.38 | | | 0.06 | 1.48 | 0.45 | |
| Tanner crab | | | | | | | | |
| triangle Tanner crab | 51.09 | 1.68 | 0.04 | | 22.50 | 5.59 | | |
| snow crab | | | | | | | | |
| scarlet king crab | 0.42 | | | | 1.70 | 0.76 | | |
| golden king crab | | 1.76 | | | 2.56 | 24.66 | 44.64 | |
| hermit crabs | 0.05 | 0.29 | 0.01 | | 0.07 | 0.02 | 0.03 | |
| other crabs | | | 0.02 | | 1.50 | | | |
| jellyfishes | 0.16 | 0.01 | 0.52 | | 2.74 | 0.19 | 0.52 | 0.15 |
| coral & anemones | 0.01 | 3.91 | 2.47 | | | 0.06 | 0.54 | 0.38 |
| gastropods | 1.04 | 1.21 | 0.40 | | 0.85 | | | 2.24 |
| clams | | | | | 0.004 | | | |
| giant octopus | | | 2.38 | | | | | |
| other octopus | 0.59 | 4.01 | | | 0.23 | 0.12 | | |
| magistrate armhook squid | | 4.72 | 0.73 | | | 0.91 | 5.62 | |
| other squid | | | 0.19 | | | | | 0.05 |
| seastars, brittlestars, cucumbers | 47.35 | 17.11 | 5.92 | | 1.93 | 1.26 | 243.36 | 2.24 |
| sponges | | 0.41 | 2.00 | | 16.93 | 0.38 | 4.44 | 30.58 |
| other inverts | | 0.29 | 0.28 | | 0.15 | 0.002 | 0.02 | 0.07 |
| **Haul total weight (kg)** | **721.10** | **761.74** | **630.81** | | **359.71** | **499.32** | **1039.12** | **1326.01** |

Appendix C. - - Haul log.

| Haul | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 07-JUL-12 | 07-JUL-12 | 07-JUL-12 | 07-JUL-12 | 08-JUL-12 | 08-JUL-12 | 08-JUL-12 | 08-JUL-12 |
| Start latitude (N) | 56.5081 | 56.5653 | 56.4042 | 56.4572 | 58.4800 | 58.6037 | 58.5473 | 58.4278 |
| Start longitude (W) | -172.3116 | -172.3317 | -172.6804 | -172.7222 | -174.7995 | -175.1475 | -174.6825 | -174.5375 |
| End latitude (N) | 56.5069 | 56.5677 | 56.3887 | 56.4644 | 58.4664 | 58.6165 | 58.5297 | 58.4138 |
| End longitude (W) | -172.2741 | -172.3671 | -172.6534 | -172.7617 | -174.7846 | -175.1181 | -174.6611 | -174.5121 |
| Stratum | 34 | 33 | 35 | 33 | 45 | 42 | 43 | 41 |
| Station ID | 34-04 | 33-03 | 35-04 | 33-04 | 45-02 | 42-03 | 43-07 | 41-05 |
| Duration (hour) | 0.57 | 0.50 | 0.58 | 0.59 | 0.51 | 0.50 | 0.52 | 0.52 |
| Distance fished (km) | 2.34 | 2.23 | 2.44 | 2.63 | 1.76 | 2.24 | 2.43 | 2.22 |
| Net width (m) | 17.57 | 17.40 | 17.47 | 16.70 | 18.15 | 15.89 | 16.25 | 16.40 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 961 | 616 | 1035 | 739 | 1108 | 411 | 621 | 313 |
| Surface temperature (°C) | 7.1 | 6.9 | 7.4 | 7.3 | 6.1 | 6.6 | 6.3 | 6 |
| Bottom temperature (°C) | 2.8 | 3.4 | 2.8 | 3.2 | 2.8 | 3.8 | 3.5 | 3.7 |
| Pacific sleeper shark | | | | | | | | 5.50 |
| Bering skate | | | | | | 54.44 | | 27.64 |
| mud skate | | | | | | | | |
| roughtail skate | 13.05 | | 4.18 | 3.04 | 9.65 | | | |
| Alaska skate | | | | | | 5.56 | | 321.94 |
| Aleutian skate | | 74.00 | 1.60 | 18.10 | | 222.19 | 17.12 | 144.70 |
| Commander skate | 4.01 | 29.48 | 8.35 | 36.30 | 4.42 | 8.05 | 32.26 | |
| whiteblotched skate | | 2.06 | | | | | | |
| whitebrow skate | | 3.72 | | 1.22 | | 26.74 | | 2.76 |
| other elasmobranchs & eggs | | | 22.70 | | | 0.18 | | |
| arrowtooth flounder | | 4.30 | | | | 402.24 | | 379.06 |
| Kamchatka flounder | 2.23 | 36.04 | | 56.02 | | 38.06 | 23.26 | 13.36 |
| Greenland turbot | | 11.02 | | 2.36 | 5.15 | 62.06 | 40.26 | |
| Pacific halibut | | | | | | 13.68 | | 74.23 |
| flathead sole | | | | | | 105.98 | | 160.74 |
| rex sole | | | | | | 43.20 | | 141.68 |
| other flatfishes | | | | 9.88 | | | 2.32 | |
| sablefish | | 15.66 | | 15.24 | | 15.81 | 26.04 | |
| Other fishes | | 0.16 | | | 0.01 | 0.56 | | |
| poachers | | 0.30 | | 0.23 | | 0.15 | 0.02 | 1.05 |
| mesopelagic fishes | 1.11 | 0.20 | 0.42 | | 0.83 | | | |
| blacktail snailfish | 0.19 | 0.09 | 0.05 | 2.01 | | | | |
| other snailfishes | 1.60 | 0.17 | 0.58 | 0.01 | 1.96 | | 0.23 | 10.70 |
| Pacific grenadier | 42.96 | | 48.10 | | 93.92 | | | |
| giant grenadier | 1136.42 | 951.65 | 1417.68 | 4856.08 | 504.84 | 467.88 | 4251.80 | |
| popeye grenadier | 82.49 | 104.55 | 124.06 | 526.09 | 74.20 | | 265.76 | |
| Pacific cod | | | | | | | | |
| walleye pollock | | | | | | 15.22 | | 32.86 |
| other grenadiers & cods | | | 1.93 | | 0.94 | | | |
| darkfin sculpin | | | | 0.02 | | 0.53 | | 0.06 |
| spinyhead sculpin | | | | | | 0.24 | | 1.74 |
| blob sculpin | 18.99 | | 27.12 | | 5.55 | | | |
| bigmouth sculpin | | | | | | 11.34 | | 23.68 |
| other sculpins | | 0.14 | | 0.02 | | | 0.02 | |
| twoline eelpout | | 2.97 | | 4.70 | 1.07 | | | |
| western eelpout | | | | | | | | |
| ebony eelpout | | | | | | | 19.58 | |
| Bering eelpout | | 0.79 | | 0.31 | | | 0.07 | |
| other eelpouts | | 0.01 | | | | | | |
| shortspine thornyhead | 2.07 | 103.93 | | 24.08 | | 47.72 | 66.22 | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | | | | |
| Pacific ocean perch | | | | | | 0.74 | | 103.82 |
| shortraker rockfish | | | | | | 69.12 | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | | | | 0.34 |
| other shrimps | 0.15 | | 0.04 | | 0.47 | 2.23 | | 6.21 |
| grooved Tanner crab | 3.05 | 4.52 | 0.30 | 0.45 | 0.17 | | 20.49 | |
| Tanner crab | | | | | | | | 0.37 |
| triangle Tanner crab | | | 2.40 | | 7.54 | | | |
| snow crab | | | | | | | | 0.54 |
| scarlet king crab | | | | 0.01 | | | | |
| golden king crab | | 0.02 | | | | | 18.60 | 1.84 |
| hermit crabs | 0.02 | 0.13 | | 0.05 | | 1.78 | 0.35 | 0.08 |
| other crabs | 5.66 | | 4.86 | 0.55 | 1.35 | | | |
| jellyfishes | 0.14 | 0.02 | 0.02 | | 8.47 | 2.24 | 0.74 | 8.28 |
| coral & anemones | | 0.05 | | 0.21 | 15.65 | 43.33 | 2.00 | 1.29 |
| gastropods | 0.13 | 0.18 | 0.11 | 0.12 | 0.10 | 3.20 | 0.33 | 0.24 |
| clams | | | | | | | | |
| giant octopus | | 0.97 | | | | | | 2.69 |
| other octopus | | 5.74 | 0.13 | | 11.39 | 3.42 | 2.11 | 0.15 |
| magistrate armhook squid | | 0.16 | | | | 5.90 | | 2.34 |
| other squid | | | | | | | | |
| seastars, brittlestars, cucumbers | 31.36 | 89.58 | 2.72 | 34.90 | 12.27 | 9.18 | 2.06 | 3.35 |
| sponges | 0.34 | | 0.64 | | | 0.17 | 0.30 | 0.09 |
| other inverts | | 0.16 | | | 105.86 | 0.80 | | 1.93 |
| **Haul total weight (kg)** | **1345.96** | **1442.76** | **1668.00** | **5591.98** | **865.82** | **1683.96** | **4791.92** | **1475.25** |

Appendix C. - - Haul log.

| Haul | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 09-JUL-12 | 09-JUL-12 | 09-JUL-12 | 09-JUL-12 | 10-JUL-12 | 10-JUL-12 | 10-JUL-12 | 10-JUL-12 |
| Start latitude (N) | 57.8034 | 57.6622 | 57.4544 | 57.0129 | 56.8774 | 56.9512 | 57.0012 | 56.7732 |
| Start longitude (W) | -173.6986 | -174.2128 | -173.9373 | -173.9821 | -173.7937 | -173.7322 | -173.5462 | -173.4190 |
| End latitude (N) | 57.7975 | 57.6550 | 57.4472 | 56.9950 | 56.8593 | 56.9603 | 56.9863 | 56.7550 |
| End longitude (W) | -173.6877 | -174.2096 | -173.9345 | -173.9626 | -173.7828 | -173.7667 | -173.5487 | -173.4077 |
| Stratum | 41 | 41 | 31 | 34 | 35 | 33 | 34 | 32 |
| Station ID | 41-14 | 41-12 | 31-13 | 34-01 | 35-03 | 33-07 | 34-07 | 32-03 |
| Duration (hour) | 0.20 | 0.19 | 0.20 | 0.55 | 0.54 | 0.55 | 0.37 | 0.53 |
| Distance fished (km) | 0.94 | 0.82 | 0.84 | 2.34 | 2.25 | 2.35 | 1.76 | 2.22 |
| Net width (m) | 15.43 | 15.54 | 15.06 | 16.90 | 16.73 | 17.06 | 13.91 | 15.30 |
| Performance code | 4.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.10 | 0.00 |
| Bottom depth (m) | 215 | 260 | 248 | 836 | 1079 | 702 | 808 | 452 |
| Surface temperature (°C) | 6.7 | 7 | 6.9 | 7.5 | 7.3 | 6.7 | 7 | 6.8 |
| Bottom temperature (°C) | 2.9 | 3.4 | 3.1 | 3.1 | 2.7 | 3.3 | 3.1 | 3.8 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | | 1.68 | 4.62 | | | | | |
| mud skate | | | | | | | | 1.40 |
| roughtail skate | | | | 17.86 | 5.17 | | | |
| Alaska skate | | | | | | | | |
| Aleutian skate | 12.12 | 63.27 | 4.10 | 10.69 | | 19.72 | 8.48 | |
| Commander skate | | | | 4.54 | 0.17 | 16.96 | 28.50 | 3.80 |
| whiteblotched skate | | | | | | | | |
| whitebrow skate | | | | 1.76 | 0.12 | 0.92 | | |
| other elasmobranchs & eggs | 0.08 | 0.02 | | | | 0.11 | | |
| arrowtooth flounder | 58.07 | 57.36 | 40.24 | | | | | 89.78 |
| Kamchatka flounder | 6.72 | 6.62 | 6.09 | 6.91 | | 11.00 | 17.31 | 22.22 |
| Greenland turbot | | | | | | 14.00 | 6.94 | 2.58 |
| Pacific halibut | 14.50 | | 31.89 | | | | | |
| flathead sole | 1.99 | 85.93 | 6.46 | | | | | 67.50 |
| rex sole | | 1.84 | 1.44 | | | | | 42.06 |
| other flatfishes | | | | | | 7.42 | | |
| sablefish | | | | | | 11.32 | 27.20 | 19.46 |
| Other fishes | 14.16 | | | 0.02 | 0.01 | | | |
| poachers | 0.20 | 0.35 | 0.12 | | | 0.02 | 0.01 | 0.04 |
| mesopelagic fishes | | | | 0.34 | 0.11 | 0.08 | 0.04 | 0.03 |
| blacktail snailfish | | | | 1.36 | 0.23 | 0.20 | | |
| other snailfishes | 0.01 | | | 0.72 | 1.20 | 0.82 | 1.01 | 0.16 |
| Pacific grenadier | | | | 3.05 | 24.78 | | | |
| giant grenadier | | | | 1563.20 | 1137.50 | 923.70 | 297.40 | 3632.57 |
| popeye grenadier | | | | 235.08 | 347.63 | 149.11 | 14.60 | |
| Pacific cod | 14.69 | 19.23 | 34.18 | | | | | |
| walleye pollock | 11.62 | 9.47 | 5.84 | | | | | |
| other grenadiers & cods | | | | | 0.54 | | | |
| darkfin sculpin | 4.04 | 0.33 | 0.31 | | | | | |
| spinyhead sculpin | | | | | | | | |
| blob sculpin | | | | 8.76 | 5.92 | | | |
| bigmouth sculpin | 9.73 | 7.40 | 11.62 | | | | | 15.30 |
| other sculpins | 0.66 | | | 0.002 | | | 0.21 | |
| twoline eelpout | | | | | | 1.93 | | |
| western eelpout | | | | | | | | |
| ebony eelpout | | | | | | 30.14 | 0.87 | |
| Bering eelpout | | | | | | | | 0.16 |
| other eelpouts | | | | 0.01 | | | | |
| shortspine thornyhead | | | | 4.22 | | 16.16 | 5.91 | 78.82 |
| rougheye rockfish | | | 0.87 | | | | | |
| blackspotted rockfish | | | | | | | | 5.76 |
| Pacific ocean perch | 623.70 | 4440.75 | 3339.09 | | | | | |
| shortraker rockfish | | 35.22 | 357.41 | | | | | 195.96 |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | 1.59 | 0.04 | 0.37 | | | | | |
| other shrimps | 0.04 | | 0.00 | 0.02 | 0.002 | | | |
| grooved Tanner crab | | | | | 0.74 | 13.57 | | 0.30 |
| Tanner crab | | | | | | | | 0.15 |
| triangle Tanner crab | | | | 25.83 | 3.16 | | 8.77 | |
| snow crab | | | | | | | | |
| scarlet king crab | | | | 1.31 | | | | |
| golden king crab | 28.22 | 2.81 | 9.04 | | | | 0.06 | 3.29 |
| hermit crabs | | | | 0.02 | 0.02 | 0.02 | 0.69 | |
| other crabs | 0.02 | | | | 1.74 | 4.28 | 1.23 | |
| jellyfishes | | | | 0.03 | 0.08 | | 0.20 | |
| coral & anemones | 0.40 | 0.09 | 0.21 | 0.01 | 0.48 | 0.68 | 0.18 | 3.88 |
| gastropods | | 0.21 | 1.42 | 0.27 | 0.05 | 0.03 | 0.04 | |
| clams | | | | | | | | |
| giant octopus | 3.71 | | | | | | | 0.67 |
| other octopus | | | | | 2.32 | 0.36 | | 0.21 |
| magistrate armhook squid | | 1.11 | 0.35 | | 0.18 | 0.71 | | |
| other squid | 0.03 | | 0.23 | | | | | |
| seastars, brittlestars, cucumbers | 10.66 | 1.21 | 1.48 | 32.02 | 1.75 | 5.06 | 1.40 | 1.93 |
| sponges | 191.48 | | 0.66 | | 0.06 | | 0.87 | |
| other inverts | 0.29 | 0.05 | | | | | | |
| **Haul total weight (kg)** | **1008.73** | **4734.99** | **3858.05** | **1918.04** | **1533.96** | **1228.33** | **421.91** | **4188.02** |

Appendix C. - - Haul log.

| Haul | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 11-JUL-12 | 11-JUL-12 | 11-JUL-12 | 11-JUL-12 | 11-JUL-12 | 12-JUL-12 | 12-JUL-12 | 12-JUL-12 |
| Start latitude (N) | 56.4630 | 56.2255 | 56.2372 | 56.2387 | 56.2415 | 55.9347 | 55.9502 | 55.9990 |
| Start longitude (W) | -171.5803 | -171.4857 | -171.3864 | -170.9948 | -171.0082 | -170.3326 | -170.1040 | -169.9232 |
| End latitude (N) | 56.4621 | 56.2368 | 56.2453 | 56.2420 | 56.2410 | 55.9471 | 55.9504 | 56.0010 |
| End longitude (W) | -171.5494 | -171.5161 | -171.4162 | -171.0057 | -171.0187 | -170.3075 | -170.1426 | -169.9377 |
| Stratum | 32 | 34 | 33 | 31 | 31 | 24 | 22 | 21 |
| Station ID | 32-08 | 34-05 | 33-09 | 31-11 | 31-11 | 24-04 | 22-06 | 21-11 |
| Duration (hour) | 0.53 | 0.51 | 0.52 | | 0.13 | 0.56 | 0.52 | 0.22 |
| Distance fished (km) | 1.99 | 2.31 | 2.13 | | 0.69 | 2.22 | 2.45 | 0.93 |
| Net width (m) | 16.33 | 16.68 | 16.94 | | 15.72 | 16.03 | 16.36 | 15.19 |
| Performance code | 0.00 | 6.00 | 0.00 | -2.40 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 455 | 866 | 640 | 245 | 262 | 855 | 422 | 232 |
| Surface temperature (°C) | 6.3 | 6.7 | 6.5 | 6 | 6 | 6.9 | 6.9 | 7.1 |
| Bottom temperature (°C) | 3.7 | 3.1 | 3.4 | 3.2 | 3.3 | 3.1 | 3.6 | 3 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | | | | | 3.48 | | | 1.35 |
| mud skate | | | | | | | | 3.58 |
| roughtail skate | | 6.38 | | | | 6.94 | | |
| Alaska skate | | | | | | | | |
| Aleutian skate | 7.40 | 11.64 | 22.66 | | | 54.42 | 8.96 | 30.86 |
| Commander skate | 3.98 | 3.11 | 15.54 | | | 4.26 | | |
| whiteblotched skate | | | 3.42 | | | | 9.55 | |
| whitebrow skate | | 1.30 | 7.60 | | | 9.16 | | 3.08 |
| other elasmobranchs & eggs | | | | | 0.01 | 0.03 | | |
| arrowtooth flounder | 1066.80 | 4.95 | 2.81 | | 26.38 | | 22.20 | 29.02 |
| Kamchatka flounder | 7.50 | 18.36 | 36.60 | | 1.06 | 9.12 | 97.84 | 10.36 |
| Greenland turbot | 2.14 | 6.01 | 48.28 | | | | 8.11 | |
| Pacific halibut | 4.78 | | | | | | 22.49 | |
| flathead sole | 25.30 | | | | 0.82 | | | |
| rex sole | 92.20 | | 4.56 | | 0.75 | | 89.72 | 30.72 |
| other flatfishes | 1.31 | 2.36 | | | | 8.66 | 0.97 | |
| sablefish | 4.42 | 2.81 | 22.60 | | | 10.94 | | |
| Other fishes | 0.29 | | 1.06 | | | 0.01 | 0.28 | |
| poachers | 0.09 | 0.28 | 0.39 | | | 0.05 | | 2.34 |
| mesopelagic fishes | | 0.15 | 0.05 | | | 0.53 | | |
| blacktail snailfish | 0.46 | 0.13 | 2.23 | | | 0.69 | | |
| other snailfishes | 0.58 | 0.76 | 0.58 | | | 0.08 | | |
| Pacific grenadier | | 2.72 | | | | | | |
| giant grenadier | 1964.30 | 1488.94 | 952.05 | | | 1325.40 | 4212.20 | |
| popeye grenadier | | 108.04 | 88.64 | | | 154.14 | | |
| Pacific cod | | | | | 33.44 | | | 10.58 |
| walleye pollock | | | | | 67.48 | | | 5.13 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | 0.11 | | | | 6.47 | | 0.25 | 1.40 |
| spinyhead sculpin | 0.03 | | | | | | | 0.01 |
| blob sculpin | | 42.12 | | | | | | |
| bigmouth sculpin | 94.25 | | | | 7.05 | | 4.28 | 21.20 |
| other sculpins | 0.02 | 0.02 | 0.06 | | | 0.01 | 0.07 | 3.08 |
| twoline eelpout | 2.54 | 6.54 | | | | | | |
| western eelpout | | | | | | | | |
| ebony eelpout | | | | | | | | |
| Bering eelpout | 0.15 | | 0.02 | | | 0.12 | | |
| other eelpouts | | | | | | | | |
| shortspine thornyhead | 144.29 | 41.86 | 116.16 | | 126.54 | 62.84 | 120.92 | |
| rougheye rockfish | | | | | 0.25 | | | |
| blackspotted rockfish | | | | | 5.00 | | 10.08 | |
| Pacific ocean perch | | | | | 809.78 | | | 665.54 |
| shortraker rockfish | 41.26 | | | | | | 112.65 | |
| other rockfish | | | | | | | | 1.50 |
| Alaskan pink shrimp | | | | | 1.66 | | | 2.54 |
| other shrimps | 0.07 | 0.04 | | | | 0.04 | | |
| grooved Tanner crab | 2.48 | 0.63 | 3.52 | | | 8.62 | | |
| Tanner crab | | | | | | | | |
| triangle Tanner crab | | 5.24 | 0.28 | | | | | |
| snow crab | | | | | | | | |
| scarlet king crab | | 0.37 | | | | 5.22 | | |
| golden king crab | 1.20 | | | | | | 7.90 | |
| hermit crabs | 0.05 | 0.02 | 0.03 | | | 0.03 | | 0.09 |
| other crabs | | | 1.11 | | | 0.66 | | 0.15 |
| jellyfishes | | 1.07 | 0.53 | | | | | |
| coral & anemones | 7.48 | 3.81 | 0.88 | | 0.57 | 4.21 | 3.83 | 0.14 |
| gastropods | 0.32 | 0.16 | 0.60 | | 0.50 | 0.25 | 0.09 | 0.85 |
| clams | | | | | | | | |
| giant octopus | 2.36 | | | | 15.52 | | 0.46 | |
| other octopus | 12.20 | | 0.38 | | 2.20 | 0.06 | 0.09 | |
| magistrate armhook squid | | | | | | | 2.50 | |
| other squid | | | | | | | | 0.16 |
| seastars, brittlestars, cucumbers | 11.98 | 1.43 | 186.98 | | 1.30 | 8.98 | 58.03 | 2.48 |
| sponges | 1.56 | 17.87 | 0.33 | | 89.73 | 4.49 | 0.50 | 2.84 |
| other inverts | 0.10 | 0.07 | 0.03 | | 0.06 | 0.01 | 0.06 | 1.10 |
| **Haul total weight (kg)** | **3503.99** | **1779.21** | **1519.98** | | **1200.06** | **1679.97** | **4794.03** | **830.09** |

Appendix C. - - Haul log.

| Haul | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 12-JUL-12 | 12-JUL-12 | 13-JUL-12 | 13-JUL-12 | 13-JUL-12 | 13-JUL-12 | 13-JUL-12 | 14-JUL-12 |
| Start latitude (N) | 55.9864 | 55.9753 | 55.9615 | 55.9512 | 55.6890 | 55.5766 | 55.4814 | 55.4298 |
| Start longitude (W) | -169.7385 | -169.5475 | -168.9369 | -168.9308 | -168.7833 | -168.4873 | -168.2605 | -168.4444 |
| End latitude (N) | 55.9825 | 55.9784 | 55.9690 | 55.9485 | 55.7068 | 55.5662 | 55.4696 | 55.4342 |
| End longitude (W) | -169.7757 | -169.5368 | -168.9710 | -168.9686 | -168.8065 | -168.4538 | -168.2309 | -168.4567 |
| Stratum | 22 | 24 | 24 | 23 | 21 | 11 | 11 | 15 |
| Station ID | 22-05 | 24-02 | 24-05 | 23-01 | 21-01 | 11-34 | 11-39 | 15-09 |
| Duration (hour) | 0.57 | | 0.55 | 0.50 | 0.49 | 0.49 | 0.49 | |
| Distance fished (km) | 2.49 | | 2.35 | 2.40 | 2.47 | 2.42 | 2.30 | |
| Net width (m) | 15.73 | | 15.41 | 16.59 | 16.01 | 15.81 | 16.51 | |
| Performance code | 0.00 | -5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -5.00 |
| Bottom depth (m) | 529 | 886 | 838 | 732 | 217 | 209 | 241 | 1089 |
| Surface temperature (°C) | 7.2 | 7.3 | 6.6 | 6.6 | 7.3 | 7 | 7.3 | 7.2 |
| Bottom temperature (°C) | 3.5 | 2.9 | 2.9 | 3.1 | 3.2 | 2.7 | 3.2 | 2.8 |
| Pacific sleeper shark | 9.55 | | | | | | | |
| Bering skate | | | | | 0.62 | 7.08 | 8.60 | |
| mud skate | | | 0.04 | 7.81 | | | | |
| roughtail skate | | | | | | | | |
| Alaska skate | | | | | | 8.72 | | |
| Aleutian skate | 10.24 | | 32.72 | 25.60 | | 10.57 | 6.87 | |
| Commander skate | | | 13.68 | 69.20 | | | | |
| whiteblotched skate | | | | 81.98 | | 16.27 | 13.92 | |
| whitebrow skate | | | 1.82 | 4.40 | | | 15.95 | |
| other elasmobranchs & eggs | | | 0.05 | 0.07 | 0.06 | 1.58 | | |
| arrowtooth flounder | 31.52 | | | | 43.34 | 23.90 | 21.92 | |
| Kamchatka flounder | 40.12 | | 22.48 | 82.00 | 11.40 | 9.75 | 15.74 | |
| Greenland turbot | 19.92 | | 4.77 | 10.97 | | | | |
| Pacific halibut | | | | | | | | |
| flathead sole | 6.70 | | | | 1.83 | 13.02 | 16.87 | |
| rex sole | 110.50 | | | | 62.32 | 62.40 | 62.80 | |
| other flatfishes | 1.30 | | | 3.56 | | | | |
| sablefish | 12.34 | | 4.02 | 69.56 | | | | |
| Other fishes | | | 0.28 | | | 0.61 | | |
| poachers | 0.15 | | 0.02 | 0.04 | 1.51 | 0.41 | 1.26 | |
| mesopelagic fishes | 0.30 | | 0.04 | 0.15 | 0.03 | | | |
| blacktail snailfish | 1.47 | | 1.61 | 0.02 | | | | |
| other snailfishes | 0.27 | | 0.19 | 0.39 | 0.03 | 0.17 | 0.50 | |
| Pacific grenadier | | | | | | | | |
| giant grenadier | 575.92 | | 1452.54 | 61.50 | | | | |
| popeye grenadier | 2.12 | | 441.26 | 32.20 | | | | |
| Pacific cod | | | | | 22.14 | 8.38 | 4.70 | |
| walleye pollock | | | | | 491.34 | 540.44 | 219.56 | |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | | 0.17 | 0.19 | 0.07 | 0.16 | 0.19 | |
| spinyhead sculpin | | | | | | | 0.65 | |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | 6.36 | | | | 7.56 | 9.70 | | |
| other sculpins | | | 0.03 | 0.43 | | 0.02 | 0.03 | |
| twoline eelpout | | | | 2.28 | | | | |
| western eelpout | | | | 0.60 | | | | |
| ebony eelpout | | | | 2.12 | | | | |
| Bering eelpout | 1.30 | | | | 0.03 | 0.11 | 0.24 | |
| other eelpouts | | | | | | | | |
| shortspine thornyhead | 252.62 | | 39.88 | 100.46 | 1.58 | | | |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | | | 0.31 | | | |
| Pacific ocean perch | | | | | 30.24 | 454.56 | 11.23 | |
| shortraker rockfish | 17.96 | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | 2.01 | 1.76 | 1.48 | |
| other shrimps | 0.03 | | 0.25 | 0.07 | 0.004 | | 0.002 | |
| grooved Tanner crab | 10.68 | | 2.43 | 1.26 | | | | |
| Tanner crab | | | | | 0.13 | | | |
| triangle Tanner crab | | | 2.78 | | | | | |
| snow crab | | | | | | | | |
| scarlet king crab | | | 8.06 | 1.28 | | | | |
| golden king crab | | | | 0.002 | 0.76 | | | |
| hermit crabs | | | 0.13 | 0.01 | 0.07 | 0.18 | 0.76 | |
| other crabs | | | 9.40 | | 0.14 | 0.05 | 0.19 | |
| jellyfishes | 3.30 | | 0.01 | 0.54 | | | 0.93 | |
| coral & anemones | 40.75 | | 0.16 | 0.15 | 1.90 | 1.24 | 0.94 | |
| gastropods | 0.08 | | | 0.32 | 0.49 | 12.86 | 3.91 | |
| clams | | | | | | | | |
| giant octopus | | | | | | 0.02 | 3.19 | |
| other octopus | 4.96 | | 0.01 | | | | | |
| magistrate armhook squid | 0.53 | | | 0.46 | | 1.09 | 0.42 | |
| other squid | | | | | | 0.13 | 0.06 | |
| seastars, brittlestars, cucumbers | 18.43 | | 1.84 | 0.65 | 13.82 | 3.14 | 12.25 | |
| sponges | | | 10.44 | 4.20 | | | 0.45 | |
| other inverts | 0.24 | | 1.89 | | 0.09 | 0.40 | 0.04 | |
| **Haul total weight (kg)** | **1179.67** | | **2052.98** | **564.48** | **693.82** | **1188.72** | **425.65** | |

Appendix C. - - Haul log.

| Haul | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 14-JUL-12 | 14-JUL-12 | 14-JUL-12 | 14-JUL-12 | 14-JUL-12 | 15-JUL-12 | 15-JUL-12 | 15-JUL-12 |
| Start latitude (N) | 55.4008 | 55.3696 | 55.3949 | 55.2599 | 55.2018 | 54.3014 | 54.3780 | 54.4465 |
| Start longitude (W) | -168.3443 | -168.1809 | -168.0000 | -168.0137 | -167.8318 | -166.8870 | -166.8673 | -166.8451 |
| End latitude (N) | 55.4038 | 55.3837 | 55.4039 | 55.2779 | 55.1856 | 54.3093 | 54.3792 | 54.4460 |
| End longitude (W) | -168.3524 | -168.2085 | -168.0335 | -168.0313 | -167.8096 | -166.9201 | -166.8320 | -166.8816 |
| Stratum | 14 | 12 | 11 | 13 | 11 | 15 | 13 | 12 |
| Station ID | 14-09 | 12-14 | 11-10 | 13-09 | 11-28 | 15-03 | 13-03 | 12-04 |
| Duration (hour) | | 0.52 | 0.51 | 0.51 | 0.48 | 0.56 | 0.52 | 0.52 |
| Distance fished (km) | | 2.36 | 2.37 | 2.32 | 2.30 | 2.35 | 2.37 | 2.43 |
| Net width (m) | | 16.88 | 16.57 | 17.72 | 16.31 | 18.33 | 17.08 | 17.27 |
| Performance code | -1.12 | 0.00 | 0.00 | 0.00 | 0.00 | 3.20 | 0.00 | 0.00 |
| Bottom depth (m) | 875 | 528 | 223 | 633 | 354 | 1009 | 615 | 517 |
| Surface temperature (°C) | 7.2 | 7.4 | 7.1 | 7.5 | 7.1 | 7 | 7.1 | 6.6 |
| Bottom temperature (°C) | | 3.5 | 3.2 | 3.3 | 3.5 | 2.8 | 3.4 | 3.4 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | | | 0.96 | | 2.60 | 0.06 | 4.24 | 1.02 |
| mud skate | | | | | | | | |
| roughtail skate | | | | | | 14.46 | 4.90 | 1.38 |
| Alaska skate | | | | | | | | |
| Aleutian skate | | 12.14 | | 13.50 | 15.82 | 3.67 | 5.02 | |
| Commander skate | | 3.73 | | | | | | |
| whiteblotched skate | | | | | 6.68 | | | |
| whitebrow skate | | | | 2.72 | | 1.02 | 2.31 | 2.84 |
| other elasmobranchs & eggs | | 0.07 | | | 0.05 | | | |
| arrowtooth flounder | | 7.24 | 14.88 | 3.94 | 82.86 | | 1.98 | 5.66 |
| Kamchatka flounder | | 120.94 | 9.78 | 73.10 | 26.60 | 10.70 | 34.10 | 32.62 |
| Greenland turbot | | 58.24 | | 14.52 | 1.72 | 20.73 | 6.54 | 16.23 |
| Pacific halibut | | | | | | | | |
| flathead sole | | 15.11 | 46.21 | | 24.95 | | | |
| rex sole | | 17.91 | 32.26 | | 41.93 | | | |
| other flatfishes | | | | | 0.78 | | | |
| sablefish | | 23.56 | | 161.76 | | 9.58 | 18.24 | 9.02 |
| Other fishes | | 4.91 | 13.16 | 0.35 | | | | |
| poachers | | 0.12 | 0.42 | 0.33 | 0.18 | | 0.23 | 0.06 |
| mesopelagic fishes | | 0.37 | 0.12 | 0.08 | 0.56 | 2.16 | 0.26 | 5.59 |
| blacktail snailfish | | 1.20 | | 4.47 | | 0.10 | 1.28 | |
| other snailfishes | | | 1.34 | 0.32 | 5.20 | 2.39 | 0.11 | 0.02 |
| Pacific grenadier | | | | | | 16.13 | | |
| giant grenadier | | 26.64 | | 59.74 | | 679.95 | 169.24 | 112.92 |
| popeye grenadier | | 1.49 | | 21.22 | | 659.76 | | |
| Pacific cod | | | 14.76 | | | | | |
| walleye pollock | | | 380.80 | | 100.14 | | | |
| other grenadiers & cods | | | | | | 0.12 | | |
| darkfin sculpin | | 0.06 | 0.54 | | 4.04 | 0.02 | 0.05 | 0.01 |
| spinyhead sculpin | | 0.26 | | | 0.02 | | 0.23 | 0.17 |
| blob sculpin | | | | | | 0.16 | | |
| bigmouth sculpin | | 4.22 | | | | | | |
| other sculpins | | | | | | 0.00 | | |
| twoline eelpout | | | | | | 18.72 | | |
| western eelpout | | 25.02 | | 52.45 | 0.02 | 19.03 | 112.68 | 7.78 |
| ebony eelpout | | 23.75 | | 2.98 | | | 1.20 | 1.03 |
| Bering eelpout | | 0.39 | | 0.21 | 0.90 | 0.59 | 0.06 | |
| other eelpouts | | | | 0.002 | | 0.01 | | |
| shortspine thornyhead | | 253.99 | 3.16 | 125.08 | 33.46 | 9.28 | 49.04 | 54.28 |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | 5.71 | | 1.16 | | | |
| Pacific ocean perch | | | 4.34 | | 44.34 | | | 2.14 |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | 2.07 | | 1.39 | | | |
| other shrimps | | 0.16 | | | 0.19 | 0.72 | 0.76 | 0.08 |
| grooved Tanner crab | | 16.50 | | 17.81 | | | 1.88 | |
| Tanner crab | | | 0.18 | | | | | |
| triangle Tanner crab | | 0.20 | | | | 31.70 | | |
| snow crab | | | 0.57 | | | | | |
| scarlet king crab | | | | | | | | |
| golden king crab | | 0.81 | | | 4.80 | | 1.05 | 3.17 |
| hermit crabs | | 0.50 | 0.28 | 1.17 | 0.13 | 0.11 | 0.09 | 0.20 |
| other crabs | | | 0.03 | 0.01 | 0.11 | | | |
| jellyfishes | | | | 0.31 | | 0.25 | | 0.04 |
| coral & anemones | | 4.20 | 1.13 | 0.15 | 9.90 | 0.08 | | |
| gastropods | | 1.77 | 3.70 | 1.27 | 1.92 | 0.94 | 3.42 | 2.57 |
| clams | | | | | | 0.01 | | |
| giant octopus | | 0.56 | | | | | | |
| other octopus | | 1.80 | | 0.12 | | 0.93 | 0.40 | 0.59 |
| magistrate armhook squid | | 2.93 | | 3.41 | 3.64 | 0.52 | 1.08 | 9.40 |
| other squid | | | 0.30 | | | | | 0.07 |
| seastars, brittlestars, cucumbers | | 37.93 | 8.26 | 43.07 | 15.50 | 4.08 | 417.59 | 303.17 |
| sponges | | 0.63 | 0.36 | 0.08 | | | 21.38 | 34.11 |
| other inverts | | | 0.13 | 0.08 | 0.72 | | 1.09 | 3.64 |
| **Haul total weight (kg)** | | **669.36** | **545.46** | **604.25** | **432.30** | **1508.00** | **860.45** | **609.79** |

Appendix C. - - Haul log.

| Haul | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 15-JUL-12 | 17-JUL-12 | 17-JUL-12 | 17-JUL-12 | 17-JUL-12 | 17-JUL-12 | 18-JUL-12 | 18-JUL-12 |
| Start latitude (N) | 54.3106 | 54.4887 | 54.4291 | 54.5786 | 54.6844 | 54.7594 | 54.5721 | 54.5696 |
| Start longitude (W) | -166.7362 | -166.3405 | -166.0661 | -165.8642 | -165.7642 | -166.0068 | -166.5830 | -166.2325 |
| End latitude (N) | 54.3051 | 54.4896 | 54.4405 | 54.5707 | 54.6839 | 54.7600 | 54.5727 | 54.5698 |
| End longitude (W) | -166.7063 | -166.3047 | -166.0362 | -165.8297 | -165.7282 | -165.9699 | -166.6196 | -166.2683 |
| Stratum | 14 | 12 | 12 | 12 | 11 | 11 | 12 | 12 |
| Station ID | 14-02 | 12-28 | 12-44 | 12-25 | 11-20 | 11-14 | 12-18 | 12-07 |
| Duration (hour) | 0.49 | 0.53 | 0.49 | 0.50 | 0.50 | 0.53 | 0.51 | 0.50 |
| Distance fished (km) | 2.16 | 2.35 | 2.33 | 2.43 | 2.36 | 2.40 | 2.38 | 2.35 |
| Net width (m) | 17.54 | 17.63 | 17.05 | 16.58 | 16.70 | 17.13 | 17.20 | 16.67 |
| Performance code | 3.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 830 | 496 | 589 | 421 | 311 | 211 | 417 | 421 |
| Surface temperature (°C) | 6.5 | 7.1 | 7 | 6.8 | 6.8 | 6.7 | 6.8 | 7.4 |
| Bottom temperature (°C) | 3.1 | 3.5 | 3.3 | 3.6 | 3.4 | 3.4 | 3.6 | 3.6 |
| Pacific sleeper shark | | | | 14.00 | | | | |
| Bering skate | 2.38 | | 19.26 | 1.82 | 8.40 | | 9.00 | 8.96 |
| mud skate | | | | 2.91 | | | | |
| roughtail skate | 22.34 | | | | | | | |
| Alaska skate | | | | | 7.71 | | | |
| Aleutian skate | 0.24 | 4.29 | 10.59 | 32.44 | 98.20 | | 38.66 | 70.34 |
| Commander skate | 2.22 | 8.76 | 8.29 | | | | 5.26 | |
| whiteblotched skate | | | | 5.41 | | | 19.34 | |
| whitebrow skate | | 3.58 | 1.94 | | 9.42 | | | |
| other elasmobranchs & eggs | | | 0.01 | | | 0.05 | 0.01 | 0.05 |
| arrowtooth flounder | | 11.64 | 3.38 | 63.14 | 86.36 | 66.63 | 125.36 | 83.89 |
| Kamchatka flounder | 22.08 | 48.84 | 24.22 | 13.01 | 10.02 | 0.25 | 27.32 | 58.86 |
| Greenland turbot | 43.72 | 24.28 | 54.40 | 19.90 | | | 16.44 | 138.92 |
| Pacific halibut | | 54.72 | 34.70 | 6.83 | 14.18 | | | 2.49 |
| flathead sole | | 66.54 | | 20.14 | 14.00 | 19.32 | 112.14 | 64.96 |
| rex sole | | | | 41.26 | 48.50 | 0.75 | 21.54 | 29.12 |
| other flatfishes | | 3.23 | | 49.78 | 22.16 | 0.05 | | 11.25 |
| sablefish | 10.72 | 31.40 | 29.66 | 12.77 | | | 3.82 | 7.57 |
| Other fishes | | 0.88 | | | 0.55 | | | 0.20 |
| poachers | 0.41 | 0.02 | 0.12 | | 5.47 | 0.44 | 0.14 | 0.06 |
| mesopelagic fishes | 3.33 | 0.06 | 1.05 | 0.44 | 0.67 | 0.50 | 3.08 | 0.59 |
| blacktail snailfish | 0.74 | | 3.92 | | | | | |
| other snailfishes | 0.45 | | 0.02 | 4.64 | 1.48 | 0.51 | | 0.002 |
| Pacific grenadier | | | | | | | | |
| giant grenadier | 138.92 | 124.28 | 133.96 | | | | | 10.24 |
| popeye grenadier | 50.86 | | 5.12 | | | | | |
| Pacific cod | | | | | 2.77 | | | |
| walleye pollock | | | | 199.52 | 21.20 | | 23.50 | 274.76 |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | 0.03 | | | 0.02 | | 0.46 | | 0.01 |
| spinyhead sculpin | | 0.08 | | 0.84 | 2.00 | 3.37 | 0.24 | 0.35 |
| blob sculpin | 0.02 | | | | | | | |
| bigmouth sculpin | | | | | | | | |
| other sculpins | | | | | | 0.14 | | |
| twoline eelpout | 9.37 | | | | | | | |
| western eelpout | 11.78 | 84.16 | 248.56 | 6.70 | | | 8.76 | 29.52 |
| ebony eelpout | | 4.95 | 3.82 | | | | 5.56 | 9.03 |
| Bering eelpout | 1.08 | | | 0.50 | | | 0.12 | 1.17 |
| other eelpouts | | 0.01 | | | | | | 0.08 |
| shortspine thornyhead | 81.26 | 154.58 | 168.00 | 23.52 | | | 101.40 | 61.78 |
| rougheye rockfish | | | | 1.10 | 1.24 | | 5.10 | 0.95 |
| blackspotted rockfish | | | | | | | | |
| Pacific ocean perch | | | | 18.20 | 13.00 | 2.25 | 17.22 | 15.86 |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | 1.26 | 6.76 | | |
| other shrimps | 0.17 | | 0.05 | 0.01 | | 0.03 | 0.01 | 2.36 |
| grooved Tanner crab | 0.83 | 0.49 | 0.82 | | | | | |
| Tanner crab | | | | | 2.52 | 20.65 | 0.93 | |
| triangle Tanner crab | 2.25 | | | 0.15 | | | 0.04 | 0.29 |
| snow crab | | | | | | 5.05 | | |
| scarlet king crab | | | | | | | | |
| golden king crab | 0.46 | 2.46 | | 1.12 | | 1.19 | 5.13 | 2.59 |
| hermit crabs | 0.26 | 1.30 | 0.07 | 0.64 | 0.01 | 0.29 | 0.65 | 2.49 |
| other crabs | | 0.02 | | 0.05 | | 0.02 | 0.02 | 0.03 |
| jellyfishes | 0.04 | | 0.02 | 0.22 | 0.34 | 1.05 | | 0.53 |
| coral & anemones | | 0.17 | | 18.28 | 13.42 | 9.37 | 0.51 | 3.87 |
| gastropods | 2.25 | 6.48 | 1.89 | 3.12 | 5.05 | 1.12 | 3.54 | 9.33 |
| clams | | | | | | | | |
| giant octopus | | | | 0.54 | | | 0.30 | |
| other octopus | 0.99 | 4.82 | 0.18 | 0.23 | | | 1.62 | 4.42 |
| magistrate armhook squid | 1.63 | 8.83 | 8.16 | 7.78 | | | 1.70 | 6.67 |
| other squid | | | | | | | 0.20 | |
| seastars, brittlestars, cucumbers | 0.89 | 1199.10 | 1006.75 | 7.08 | 2.97 | 3.06 | 241.80 | 49.83 |
| sponges | | 29.79 | 0.67 | | 0.21 | | 0.58 | 0.17 |
| other inverts | 0.08 | 0.27 | 0.42 | 0.03 | 1.88 | 0.02 | 1.61 | 0.20 |
| **Haul total weight (kg)** | **411.79** | **1880.02** | **1770.06** | **578.16** | **395.00** | **143.34** | **802.65** | **963.78** |

Appendix C. - - Haul log.

| Haul | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 18-JUL-12 | 18-JUL-12 | 18-JUL-12 | 19-JUL-12 | 19-JUL-12 | 19-JUL-12 | 19-JUL-12 | 19-JUL-12 |
| Start latitude (N) | 54.6725 | 54.7347 | 54.7899 | 54.6031 | 54.6444 | 54.8111 | 54.8706 | 54.9475 |
| Start longitude (W) | -166.0874 | -166.1778 | -166.4419 | -166.8812 | -166.7462 | -166.6590 | -166.9282 | -167.1587 |
| End latitude (N) | 54.6701 | 54.7349 | 54.7917 | 54.5843 | 54.6404 | 54.8178 | 54.8833 | 54.9573 |
| End longitude (W) | -166.1226 | -166.2119 | -166.4782 | -166.8900 | -166.7107 | -166.6930 | -166.9567 | -167.1880 |
| Stratum | 11 | 11 | 11 | 12 | 11 | 11 | 11 | 11 |
| Station ID | 11-22 | 11-07 | 11-32 | 12-15 | 11-24 | 11-08 | 11-11 | 11-30 |
| Duration (hour) | 0.51 | 0.54 | 0.51 | 0.48 | 0.49 | 0.48 | 0.50 | 0.49 |
| Distance fished (km) | 2.31 | 2.33 | 2.36 | 2.17 | 2.35 | 2.32 | 2.33 | 2.20 |
| Net width (m) | 16.88 | 16.81 | 16.40 | 17.50 | 17.26 | 16.98 | 17.29 | 17.09 |
| Performance code | 0.00 | 5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 312 | 240 | 211 | 413 | 368 | 232 | 238 | 220 |
| Surface temperature (°C) | 7.1 | 7.3 | 7.3 | 7.7 | 7.6 | 7.4 | 7.1 | 6.9 |
| Bottom temperature (°C) | 3.3 | 3 | 3.1 | 3.6 | 3.5 | 3.1 | 3.1 | 3.2 |
| Pacific sleeper shark | | | | | 20.16 | | | |
| Bering skate | 3.47 | 1.80 | 10.46 | 4.62 | 4.50 | 3.51 | 12.35 | 2.18 |
| mud skate | | | | | | | | |
| roughtail skate | | | | | | | | |
| Alaska skate | | | | | | | | |
| Aleutian skate | 5.58 | 14.02 | 23.17 | 26.00 | 89.22 | 8.27 | 62.06 | |
| Commander skate | | | | | | | | |
| whiteblotched skate | | | | 7.72 | | | | |
| whitebrow skate | 5.86 | | | | | | | |
| other elasmobranchs & eggs | | | 0.02 | | | | 0.09 | 0.06 |
| arrowtooth flounder | 53.39 | 55.76 | 40.75 | 80.50 | 248.40 | 47.86 | 134.78 | 51.04 |
| Kamchatka flounder | 1.11 | 1.26 | | 93.10 | 35.60 | 1.10 | 2.70 | 3.46 |
| Greenland turbot | | | | 50.58 | | | | |
| Pacific halibut | 11.96 | | | 9.40 | 18.85 | | | |
| flathead sole | 23.37 | 11.30 | 36.50 | 82.14 | 131.36 | 32.15 | 47.88 | 83.27 |
| rex sole | 1.99 | 1.36 | 0.51 | 18.35 | 13.76 | 0.25 | 0.91 | 3.36 |
| other flatfishes | | | | | | | | |
| sablefish | | | | 7.50 | | | | |
| Other fishes | | | | | | | | 0.32 |
| poachers | | | | 0.15 | 0.12 | | | |
| mesopelagic fishes | 0.16 | 0.27 | 0.90 | 0.29 | 4.04 | 0.25 | 0.20 | 0.70 |
| blacktail snailfish | | | | | | | | |
| other snailfishes | 0.23 | 0.29 | 0.24 | | 1.75 | | 0.16 | 0.15 |
| Pacific grenadier | | | | | | | | |
| giant grenadier | | | | 13.80 | | | | |
| popeye grenadier | | | | | | | | |
| Pacific cod | 3.97 | | | | | | | |
| walleye pollock | 2.16 | 1.12 | 1.61 | 15.06 | 1.09 | | | |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | | | 0.07 | 1.05 | 0.01 | | 0.01 |
| spinyhead sculpin | 6.56 | 4.32 | 4.44 | 0.03 | | 3.39 | 3.41 | 1.90 |
| blob sculpin | | | | | | | | |
| bigmouth sculpin | | | | | | | | |
| other sculpins | | 0.21 | 0.33 | | | 0.13 | 0.40 | 0.19 |
| twoline eelpout | | | | | | | | |
| western eelpout | | | | 10.34 | 1.50 | | | |
| ebony eelpout | | | | | | | | |
| Bering eelpout | | | | 0.15 | | | | |
| other eelpouts | | | | | | | | |
| shortspine thornyhead | | | | 62.06 | 82.38 | | | |
| rougheye rockfish | 1.15 | 4.24 | | | 12.90 | | 1.46 | 15.92 |
| blackspotted rockfish | 1.02 | | | | | | | |
| Pacific ocean perch | 3.92 | | | 9.75 | 20.22 | | 3.86 | 83.97 |
| shortraker rockfish | | | | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | 3.50 | 7.05 | 7.33 | | | 3.65 | 3.35 | 2.02 |
| other shrimps | 0.07 | 0.03 | 0.01 | 0.72 | 0.05 | 0.02 | 0.03 | |
| grooved Tanner crab | | | | | | | | |
| Tanner crab | 0.90 | 15.86 | 19.90 | | | 7.10 | 2.22 | 0.69 |
| triangle Tanner crab | | | | | 0.04 | | | |
| snow crab | | 2.43 | 3.96 | | | | | |
| scarlet king crab | | | | | | | | |
| golden king crab | | | | 5.91 | 3.74 | | | |
| hermit crabs | 0.33 | 0.12 | | 1.09 | 2.32 | | 0.11 | 0.29 |
| other crabs | 0.07 | 0.11 | | 0.02 | 0.01 | | 0.04 | 0.02 |
| jellyfishes | 0.10 | 0.26 | 0.35 | | 0.16 | | 0.18 | 1.16 |
| coral & anemones | 5.39 | 3.51 | 39.52 | 0.92 | 1.46 | 12.31 | 1.53 | 3.83 |
| gastropods | 3.98 | 2.60 | 1.54 | 1.58 | 3.91 | 0.70 | 1.33 | 1.72 |
| clams | | | | | | | | |
| giant octopus | 0.45 | | | | | | | |
| other octopus | | 0.47 | | 0.15 | | | | |
| magistrate armhook squid | 1.98 | | | 4.52 | 0.81 | | | |
| other squid | | | | | | | | |
| seastars, brittlestars, cucumbers | 3.16 | 4.18 | 0.14 | 146.52 | 180.17 | 0.56 | 1.75 | 1.49 |
| sponges | 0.30 | 1.87 | | 0.18 | 1.13 | 0.11 | 1.82 | |
| other inverts | 0.31 | 0.62 | 0.02 | | 0.03 | 0.13 | 0.28 | 0.22 |
| **Haul total weight (kg)** | **146.42** | **135.05** | **191.70** | **653.20** | **880.73** | **121.49** | **282.90** | **257.97** |

Appendix C. - - Haul log.

| Haul | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 19-JUL-12 | 20-JUL-12 | 20-JUL-12 | 20-JUL-12 | 20-JUL-12 | 20-JUL-12 | 21-JUL-12 | 21-JUL-12 |
| Start latitude (N) | 55.0289 | 55.0742 | 55.1172 | 55.0531 | 55.0146 | 55.1368 | 54.9436 | 54.9313 |
| Start longitude (W) | -167.3409 | -167.8950 | -167.8027 | -167.8411 | -167.7083 | -167.5587 | -167.7870 | -167.6885 |
| End latitude (N) | 55.0410 | 55.0941 | 55.1357 | 55.0704 | 55.0268 | 55.1287 | 54.9273 | 54.9202 |
| End longitude (W) | -167.3701 | -167.9068 | -167.8201 | -167.8607 | -167.7377 | -167.5462 | -167.7708 | -167.6599 |
| Stratum | 11 | 13 | 12 | 12 | 12 | 11 | 15 | 13 |
| Station ID | 11-12 | 13-08 | 12-33 | 12-17 | 12-46 | 11-13 | 15-08 | 13-17 |
| Duration (hour) | 0.52 | 0.54 | 0.50 | 0.53 | 0.52 | 0.30 | 0.54 | 0.50 |
| Distance fished (km) | 2.31 | 2.37 | 2.34 | 2.29 | 2.33 | 1.21 | 2.13 | 2.23 |
| Net width (m) | 16.69 | 17.24 | 16.82 | 17.18 | 16.99 | 16.07 | 17.71 | 16.32 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.10 | 0.00 |
| Bottom depth (m) | 208 | 619 | 432 | 557 | 476 | 213 | 1023 | 662 |
| Surface temperature (°C) | 7.5 | 7.8 | 7.7 | 7.7 | 8 | 7.7 | 7.7 | 7.6 |
| Bottom temperature (°C) | 3.1 | 3.5 | 3.6 | 3.5 | 3.6 | 3.4 | 2.8 | 3.5 |
| Pacific sleeper shark | | | | | | | | 8.68 |
| Bering skate | 1.44 | 1.21 | 2.36 | | 2.35 | 1.88 | | 7.26 |
| mud skate | | | | | | | | |
| roughtail skate | | 3.63 | | | | | 38.31 | 0.98 |
| Alaska skate | | | | | | | | |
| Aleutian skate | 37.52 | 9.14 | 62.12 | | 2.50 | 35.82 | 1.81 | 27.04 |
| Commander skate | | | | | | | | |
| whiteblotched skate | | | 58.39 | | 4.11 | 8.42 | | |
| whitebrow skate | | 2.08 | | | 2.69 | | | |
| other elasmobranchs & eggs | 0.09 | | | | 0.40 | 0.03 | 0.17 | 0.25 |
| arrowtooth flounder | 20.73 | 5.80 | 333.90 | 16.60 | 86.97 | 41.48 | | |
| Kamchatka flounder | 6.64 | 59.00 | 90.77 | 71.48 | 170.07 | 4.70 | 7.98 | 88.06 |
| Greenland turbot | | 78.78 | 51.24 | 37.34 | 108.74 | | 4.71 | 33.18 |
| Pacific halibut | | | 4.58 | | | | | |
| flathead sole | 56.62 | | 111.90 | | | 50.60 | | |
| rex sole | 44.15 | 6.96 | 40.60 | | 1.41 | 51.22 | | |
| other flatfishes | 0.11 | | 7.16 | | | 1.96 | | 20.36 |
| sablefish | | 19.31 | 30.70 | 11.27 | | | 7.11 | 31.66 |
| Other fishes | | | | 0.32 | | 0.59 | 0.01 | 0.39 |
| poachers | | 0.06 | 0.05 | 0.03 | 0.04 | 0.03 | | 0.11 |
| mesopelagic fishes | 0.77 | 0.03 | 0.78 | 0.04 | 0.07 | 0.18 | 1.32 | 0.01 |
| blacktail snailfish | | 2.40 | | | | | 0.16 | |
| other snailfishes | 0.15 | 0.61 | | 0.68 | | 0.02 | 6.96 | |
| Pacific grenadier | | | | | | | | |
| giant grenadier | | 456.60 | 4.98 | 331.94 | 372.96 | | 261.78 | 356.26 |
| popeye grenadier | | 118.19 | | 17.80 | | | 365.25 | 23.29 |
| Pacific cod | 1.52 | | | | | 5.37 | | |
| walleye pollock | | | 28.50 | | 1.84 | 277.38 | | |
| other grenadiers & cods | | | | | | | | |
| darkfin sculpin | | 0.65 | 0.64 | | 1.12 | 0.15 | | 3.03 |
| spinyhead sculpin | 0.32 | | | | | 0.48 | | |
| blob sculpin | | | | | | | 9.06 | |
| bigmouth sculpin | | | | | | | | |
| other sculpins | 0.03 | | | | | | 0.01 | |
| twoline eelpout | | | | | | | 1.51 | 11.53 |
| western eelpout | | 1186.00 | | 251.66 | 25.64 | | 3.71 | 22.42 |
| ebony eelpout | | 1.78 | | | | | | 0.99 |
| Bering eelpout | | | 0.19 | | | | | 0.22 |
| other eelpouts | | | | | | | 0.01 | |
| shortspine thornyhead | | 71.76 | 98.67 | 247.48 | 114.46 | | 3.41 | 35.48 |
| rougheye rockfish | | | | | | 0.56 | | |
| blackspotted rockfish | | | | | 1.63 | | | |
| Pacific ocean perch | | | 3.65 | | 3.17 | 246.08 | | |
| shortraker rockfish | | | | | | | | 2.63 |
| other rockfish | | | | | | 1.41 | | |
| Alaskan pink shrimp | 1.43 | | | | | 0.17 | | |
| other shrimps | | | 0.02 | | | | 2.21 | 0.04 |
| grooved Tanner crab | | 0.80 | 0.28 | | | | | 3.46 |
| Tanner crab | 4.04 | | | 0.88 | | 5.78 | | |
| triangle Tanner crab | | | | | | | 71.00 | |
| snow crab | | | | | | | | |
| scarlet king crab | | | | | | | | |
| golden king crab | | 1.14 | | | 0.11 | | | |
| hermit crabs | 0.12 | 0.35 | 1.21 | 0.43 | 0.07 | 0.50 | 0.12 | 0.21 |
| other crabs | 0.12 | | | | | 0.04 | 0.47 | |
| jellyfishes | 1.40 | | 0.09 | | | | 0.62 | 0.21 |
| coral & anemones | 11.80 | 0.05 | 20.18 | 0.25 | 9.24 | 3.67 | 0.05 | |
| gastropods | 3.58 | 0.65 | 2.61 | 1.38 | 2.17 | 1.75 | 0.19 | 3.00 |
| clams | | | | | | | | |
| giant octopus | | | | | | | | |
| other octopus | | 0.54 | 0.38 | | | | 0.52 | 0.91 |
| magistrate armhook squid | | 1.20 | 6.40 | 1.07 | 9.26 | | | |
| other squid | | | | | | 0.14 | | |
| seastars, brittlestars, cucumbers | 0.41 | 233.11 | 11.44 | 274.75 | 263.53 | 0.80 | 11.24 | 246.72 |
| sponges | | 1.05 | | 0.56 | 8.98 | | 2.03 | |
| other inverts | 0.90 | 1.09 | 0.25 | 0.04 | 0.42 | 1.30 | 0.02 | 1.66 |
| **Haul total weight (kg)** | **193.88** | **2263.97** | **974.04** | **1265.99** | **1193.94** | **742.50** | **801.76** | **930.02** |

Appendix C. - - Haul log.

| Haul | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 21-JUL-12 | 21-JUL-12 | 21-JUL-12 | 22-JUL-12 | 22-JUL-12 | 22-JUL-12 | 22-JUL-12 | 23-JUL-12 |
| Start latitude (N) | 54.9965 | 54.8715 | 54.9044 | 54.8214 | 54.7384 | 54.6367 | 54.5658 | 54.4847 |
| Start longitude (W) | -167.6229 | -167.6068 | -167.4288 | -167.6819 | -167.6020 | -167.7179 | -167.5663 | -167.8690 |
| End latitude (N) | 54.9824 | 54.8512 | 54.8895 | 54.8033 | 54.7622 | 54.6567 | 54.5866 | 54.5049 |
| End longitude (W) | -167.5989 | -167.5942 | -167.4055 | -167.6765 | -167.5913 | -167.7097 | -167.5752 | -167.8615 |
| Stratum | 12 | 13 | 12 | 15 | 14 | 14 | 13 | 15 |
| Station ID | 12-11 | 13-07 | 12-47 | 15-07 | 14-07 | 14-06 | 13-12 | 15-06 |
| Duration (hour) | 0.49 | 0.52 | 0.51 | 0.56 | 0.62 | 0.53 | 0.51 | 0.54 |
| Distance fished (km) | 2.21 | 2.40 | 2.26 | 2.15 | 2.76 | 2.30 | 2.39 | 2.30 |
| Net width (m) | 16.31 | 16.78 | 16.64 | 17.07 | 17.63 | 16.59 | 17.13 | 17.55 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 419 | 629 | 413 | 1056 | 941 | 823 | 691 | 1016 |
| Surface temperature (°C) | 7.9 | 7.2 | 7.4 | 7.5 | 7.8 | 7.6 | 7.8 | 6.2 |
| Bottom temperature (°C) | 3.6 | 3.4 | 3.6 | 2.8 | 2.9 | 3 | 3.3 | 2.9 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | 3.47 | | 1.52 | | | | | |
| mud skate | | | | | | | | |
| roughtail skate | | | | 2.85 | 10.08 | 29.70 | 4.46 | 12.61 |
| Alaska skate | | | | | | | | |
| Aleutian skate | 86.03 | | 107.60 | 0.83 | | 0.78 | 8.55 | |
| Commander skate | | | | | | | | |
| whiteblotched skate | 120.44 | | 57.50 | | | | | |
| whitebrow skate | 3.14 | 7.62 | | 0.36 | | | 0.92 | 0.57 |
| other elasmobranchs & eggs | | 0.06 | 0.04 | 0.01 | | 0.38 | 0.13 | 0.16 |
| arrowtooth flounder | 234.14 | 6.14 | 254.54 | | | | 2.76 | |
| Kamchatka flounder | 97.26 | 77.80 | 89.00 | 1.96 | 12.06 | 11.10 | 27.78 | 6.35 |
| Greenland turbot | 35.40 | 31.02 | 39.22 | 18.34 | 4.96 | 13.41 | 15.80 | 3.65 |
| Pacific halibut | | | | | | | | |
| flathead sole | 121.92 | | 81.76 | | | | | |
| rex sole | 36.30 | | 68.16 | | | | | |
| other flatfishes | 3.91 | 11.68 | 12.75 | | | 0.47 | | |
| sablefish | | 2.82 | | | 12.50 | 21.52 | 48.12 | 3.52 |
| Other fishes | 0.51 | | | | 0.31 | | 0.04 | |
| poachers | 0.09 | 0.04 | 0.04 | | 0.23 | 0.08 | 0.16 | |
| mesopelagic fishes | 0.24 | 0.07 | 0.13 | 1.45 | 1.67 | 1.34 | 0.44 | 2.45 |
| blacktail snailfish | | 1.42 | 1.34 | | | 0.83 | 1.29 | |
| other snailfishes | | 0.35 | | 4.29 | 2.03 | 1.55 | 0.66 | 4.58 |
| Pacific grenadier | | | | 0.14 | | | | 22.18 |
| giant grenadier | 30.78 | 1136.30 | 50.62 | 427.76 | 950.46 | 928.00 | 568.70 | 754.92 |
| popeye grenadier | | 59.00 | | 635.80 | 694.50 | 158.33 | 66.00 | 58.09 |
| Pacific cod | | | | | | | | |
| walleye pollock | 17.47 | | 66.84 | | | | | |
| other grenadiers & cods | | | | 1.01 | | | | 1.37 |
| darkfin sculpin | 0.26 | 0.18 | 0.29 | | | 0.02 | | |
| spinyhead sculpin | | | | | | | | |
| blob sculpin | | | | 4.75 | 0.35 | | | 10.56 |
| bigmouth sculpin | | | 5.86 | | | | | |
| other sculpins | | | | 0.01 | | | | 0.002 |
| twoline eelpout | | 1.82 | | 0.22 | 4.38 | 9.20 | | 3.17 |
| western eelpout | | 434.56 | | 0.01 | 1.75 | 1.12 | 2.86 | 2.30 |
| ebony eelpout | | | | | | | | |
| Bering eelpout | | | | | 0.07 | 0.29 | 0.33 | |
| other eelpouts | | 0.004 | 0.002 | 0.002 | | | | 0.01 |
| shortspine thornyhead | 112.46 | 56.08 | 102.88 | 4.64 | 16.78 | 24.72 | 43.20 | 0.90 |
| rougheye rockfish | | | | | | | | |
| blackspotted rockfish | | | 4.54 | | | | | |
| Pacific ocean perch | 14.35 | | 9.84 | | | | | |
| shortraker rockfish | | | 2.71 | | | | | |
| other rockfish | | | 0.69 | | | | | |
| Alaskan pink shrimp | | | | | | | | |
| other shrimps | | | 0.02 | 0.28 | 0.40 | 0.32 | 0.01 | 1.58 |
| grooved Tanner crab | | | | 14.06 | | | 1.48 | |
| Tanner crab | | | | | | | | |
| triangle Tanner crab | | | | | 46.99 | 16.84 | 0.11 | 50.12 |
| snow crab | | | | | | | | |
| scarlet king crab | | | | | | | | |
| golden king crab | | | | | | | | |
| hermit crabs | 0.53 | | 0.98 | | 0.01 | 0.15 | 0.23 | 0.08 |
| other crabs | | 0.01 | | | | | | |
| jellyfishes | | 0.12 | | 0.03 | 0.09 | 0.02 | 0.32 | 0.03 |
| coral & anemones | 23.13 | 0.07 | 2.09 | 0.04 | | | | |
| gastropods | 0.96 | 0.94 | 0.62 | 0.48 | 0.22 | 1.26 | 2.41 | 0.44 |
| clams | | | | | | | | |
| giant octopus | | | | | | | | |
| other octopus | 0.83 | 0.67 | 0.23 | | 0.16 | 0.26 | 0.21 | 0.09 |
| magistrate armhook squid | 10.02 | 0.96 | 5.46 | | | | | |
| other squid | | 0.22 | | | | | | |
| seastars, brittlestars, cucumbers | 10.85 | 226.13 | 19.74 | 0.64 | | 0.26 | 3.78 | 4.29 |
| sponges | | 13.95 | | | | | 1.28 | |
| other inverts | 0.17 | 0.01 | 0.02 | 0.01 | | 0.04 | 0.13 | |
| **Haul total weight (kg)** | **964.66** | **2070.04** | **987.03** | **1119.98** | **1760.00** | **1222.00** | **802.17** | **944.02** |

Appendix C. - - Haul log.

| Haul | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 |
|---|---|---|---|---|---|---|---|---|
| Haul date | 23-JUL-12 | 23-JUL-12 | 23-JUL-12 | 23-JUL-12 | 24-JUL-12 | 24-JUL-12 | 24-JUL-12 | 24-JUL-12 |
| Start latitude (N) | 54.5374 | 54.4983 | 54.6136 | 54.7314 | 54.3330 | 54.3495 | 54.2832 | 54.3860 |
| Start longitude (W) | -167.6866 | -167.4105 | -167.1900 | -166.9853 | -167.9535 | -167.8397 | -167.7875 | -167.6570 |
| End latitude (N) | 54.5175 | 54.5147 | 54.5921 | 54.7437 | 54.3544 | 54.3705 | 54.2791 | 54.3641 |
| End longitude (W) | -167.6722 | -167.4316 | -167.1740 | -167.0145 | -167.9677 | -167.8514 | -167.7528 | -167.6474 |
| Stratum | 14 | 13 | 12 | 11 | 15 | 14 | 15 | 14 |
| Station ID | 14-05 | 13-11 | 12-41 | 11-25 | 15-05 | 14-04 | 15-10 | 14-03 |
| Duration (hour) | 0.54 | 0.51 | 0.51 | 0.51 | 0.62 | 0.54 | 0.51 | 0.56 |
| Distance fished (km) | 2.41 | 2.30 | 2.61 | 2.36 | 2.67 | 2.57 | 2.42 | 2.58 |
| Net width (m) | 17.55 | 17.11 | 15.89 | 16.96 | 16.48 | 17.03 | 17.74 | 17.32 |
| Performance code | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 815 | 630 | 462 | 365 | 1008 | 918 | 1013 | 816 |
| Surface temperature (°C) | 7.8 | 7.9 | 7.5 | 7.4 | 6.3 | 5.9 | 6.5 | 6.4 |
| Bottom temperature (°C) | 3 | 3.3 | 3.6 | 3.6 | 2.9 | 3 | 2.8 | 3.1 |
| Pacific sleeper shark | | | | | | | | |
| Bering skate | | 1.08 | 2.28 | 3.08 | | | | |
| mud skate | | | | | | | | |
| roughtail skate | 2.05 | | | | 13.25 | 12.57 | 3.96 | 9.48 |
| Alaska skate | | | | | | | | |
| Aleutian skate | | 6.60 | 13.26 | 27.07 | | | | |
| Commander skate | | | | | | | | |
| whiteblotched skate | | | | 6.52 | | | | |
| whitebrow skate | | | | | | 0.14 | | |
| other elasmobranchs & eggs | 0.02 | | | | 0.12 | 0.14 | 0.03 | 0.04 |
| arrowtooth flounder | | | 9.26 | 99.24 | | | | |
| Kamchatka flounder | 25.72 | 12.08 | 96.88 | 27.56 | 5.85 | 16.26 | 14.04 | 7.54 |
| Greenland turbot | 8.12 | 12.54 | 37.42 | 3.06 | | 5.16 | 4.64 | |
| Pacific halibut | | | | 15.94 | | | | |
| flathead sole | | | 16.28 | 76.14 | | | | |
| rex sole | | 0.34 | 35.94 | 28.72 | | | | |
| other flatfishes | | 1.24 | 3.30 | 3.92 | | | | |
| sablefish | 3.04 | 15.86 | | | | | 4.30 | 11.58 |
| Other fishes | | 0.36 | 2.69 | | | | | |
| poachers | 0.18 | 0.13 | 0.04 | 0.06 | | 0.01 | | 0.05 |
| mesopelagic fishes | 2.63 | 0.17 | 0.16 | 5.31 | 1.56 | 2.01 | 1.09 | 1.66 |
| blacktail snailfish | 0.14 | 1.44 | | | | 0.22 | | 0.07 |
| other snailfishes | 1.07 | 0.01 | | 1.92 | 4.46 | 2.20 | 5.52 | 0.09 |
| Pacific grenadier | | | | | 17.90 | 0.17 | 17.22 | 1.64 |
| giant grenadier | 809.64 | 266.40 | 172.50 | | 498.29 | 530.87 | 388.15 | 641.98 |
| popeye grenadier | 115.54 | 12.88 | | | 65.00 | 73.37 | 136.76 | 88.76 |
| Pacific cod | | | | | | | | |
| walleye pollock | | | | 50.36 | | | | |
| other grenadiers & cods | | | | | 0.33 | 0.44 | 2.08 | |
| darkfin sculpin | | 0.06 | 0.02 | 0.26 | | | | |
| spinyhead sculpin | | | | | | | | |
| blob sculpin | 0.07 | | | | 20.65 | 0.22 | 17.80 | |
| bigmouth sculpin | | | | | | | | |
| other sculpins | | 0.01 | | | | | | |
| twoline eelpout | 7.41 | 2.62 | | | 0.01 | 0.73 | 0.12 | 5.08 |
| western eelpout | 0.86 | 12.18 | 3.58 | | 1.77 | | 0.05 | 0.02 |
| ebony eelpout | | | | | | | | |
| Bering eelpout | 0.04 | 0.16 | | 0.05 | | | | 0.05 |
| other eelpouts | 0.01 | | | | | | 0.01 | |
| shortspine thornyhead | 25.70 | 29.10 | 55.56 | 90.26 | 2.85 | 2.87 | | 13.74 |
| rougheye rockfish | | | | 16.60 | | | | |
| blackspotted rockfish | | | 16.54 | 1.75 | | | | |
| Pacific ocean perch | | | 2.78 | 75.42 | | | | |
| shortraker rockfish | | | 38.76 | | | | | |
| other rockfish | | | | | | | | |
| Alaskan pink shrimp | | | | | | | | |
| other shrimps | 0.69 | | 0.56 | 0.06 | 1.94 | 1.47 | 0.70 | 0.44 |
| grooved Tanner crab | 0.05 | 5.28 | | | | | | |
| Tanner crab | | | | | | | | |
| triangle Tanner crab | 26.07 | 0.12 | | | 32.92 | 47.40 | 30.84 | 43.61 |
| snow crab | | | | | | | | |
| scarlet king crab | | | | | | | | |
| golden king crab | | | 35.46 | 8.60 | | | | |
| hermit crabs | 0.01 | 0.34 | 0.01 | 3.08 | 0.07 | 0.20 | 0.03 | 0.09 |
| other crabs | | | | 0.07 | | | | |
| jellyfishes | 0.14 | 0.01 | 0.04 | | 0.10 | 0.08 | 0.07 | 0.01 |
| coral & anemones | | | 0.20 | 1.21 | | | | |
| gastropods | 0.70 | 3.53 | 3.59 | 1.71 | 0.59 | 3.07 | 0.65 | 1.26 |
| clams | | | | | | | | |
| giant octopus | | | 1.26 | | | | | |
| other octopus | | 0.39 | 1.81 | | | | 0.36 | |
| magistrate armhook squid | | 0.40 | 4.14 | 3.23 | | 0.34 | | |
| other squid | | | | | | 0.14 | | |
| seastars, brittlestars, cucumbers | | 214.28 | 134.83 | 183.90 | 96.27 | 51.30 | 11.86 | 0.68 |
| sponges | 0.12 | 0.14 | 6.39 | 0.10 | | | | |
| other inverts | | 0.15 | 1.86 | 0.05 | 0.01 | 0.002 | 0.004 | 0.05 |
| **Haul total weight (kg)** | **1030.00** | **599.90** | **697.40** | **735.25** | **763.94** | **751.39** | **640.29** | **827.93** |

Appendix C. - - Haul log.

| Haul | 193 | 194 | 195 |
|---|---|---|---|
| Haul date | 24-JUL-12 | 25-JUL-12 | 25-JUL-12 |
| Start latitude (N) | 54.4100 | 54.5115 | 54.3659 |
| Start longitude (W) | -167.3917 | -166.0898 | -166.3434 |
| End latitude (N) | 54.4027 | 54.5079 | 54.3649 |
| End longitude (W) | -167.3556 | -166.1241 | -166.3807 |
| Stratum | 13 | 12 | 13 |
| Station ID | 13-05 | 12-20 | 13-01 |
| Duration (hour) | 0.54 | 0.49 | 0.51 |
| Distance fished (km) | 2.50 | 2.27 | 2.46 |
| Net width (m) | 17.34 | 16.32 | 16.55 |
| Performance code | 0.00 | 0.00 | 0.00 |
| Bottom depth (m) | 674 | 489 | 638 |
| Surface temperature (°C) | 6.8 | 7.7 | 7.1 |
| Bottom temperature (°C) | 3.3 | 3.6 | 3.4 |
| Pacific sleeper shark | | | |
| Bering skate | | 77.72 | 5.78 |
| mud skate | | | |
| roughtail skate | | | |
| Alaska skate | | | |
| Aleutian skate | 9.66 | 277.72 | 22.02 |
| Commander skate | | 30.54 | 9.22 |
| whiteblotched skate | | | |
| whitebrow skate | | 2.60 | |
| other elasmobranchs & eggs | 0.02 | | |
| arrowtooth flounder | | 198.18 | 7.06 |
| Kamchatka flounder | 17.61 | 1498.72 | 34.10 |
| Greenland turbot | 6.62 | 10.78 | 33.72 |
| Pacific halibut | | | |
| flathead sole | | 100.84 | |
| rex sole | | 26.17 | |
| other flatfishes | | | |
| sablefish | 55.74 | 153.32 | 54.52 |
| Other fishes | 2.21 | | |
| poachers | 0.24 | 0.06 | 0.73 |
| mesopelagic fishes | 0.30 | 0.02 | 0.69 |
| blacktail snailfish | 0.84 | | 2.10 |
| other snailfishes | 0.64 | | 0.02 |
| Pacific grenadier | | | |
| giant grenadier | 261.38 | 16.74 | 213.74 |
| popeye grenadier | 44.32 | | 10.54 |
| Pacific cod | | | |
| walleye pollock | | 4.83 | |
| other grenadiers & cods | | | |
| darkfin sculpin | | | |
| spinyhead sculpin | | 0.44 | 0.19 |
| blob sculpin | | | |
| bigmouth sculpin | | | |
| other sculpins | | | |
| twoline eelpout | 2.41 | | 8.76 |
| western eelpout | 2.00 | 152.20 | 145.76 |
| ebony eelpout | | 56.00 | 5.24 |
| Bering eelpout | 0.59 | | 0.10 |
| other eelpouts | | 0.05 | |
| shortspine thornyhead | 9.28 | 272.50 | 54.24 |
| rougheye rockfish | | | |
| blackspotted rockfish | | 2.18 | |
| Pacific ocean perch | | 5.25 | |
| shortraker rockfish | | | |
| other rockfish | | | |
| Alaskan pink shrimp | | | |
| other shrimps | | | 0.03 |
| grooved Tanner crab | 3.70 | 0.43 | 2.15 |
| Tanner crab | | | |
| triangle Tanner crab | 2.48 | | 0.09 |
| snow crab | | | |
| scarlet king crab | | | |
| golden king crab | | 4.51 | |
| hermit crabs | 0.35 | 0.34 | 0.17 |
| other crabs | | | |
| jellyfishes | 0.02 | | 0.09 |
| coral & anemones | | 3.56 | |
| gastropods | 3.67 | 73.49 | 5.60 |
| clams | | | |
| giant octopus | | | 1.41 |
| other octopus | 0.22 | 2.89 | 0.67 |
| magistrate armhook squid | 1.44 | 4.94 | 3.61 |
| other squid | 0.39 | | |
| seastars, brittlestars, cucumbers | 2.03 | 21.90 | 147.59 |
| sponges | 0.26 | 0.35 | 5.23 |
| other inverts | 0.71 | 0.67 | 1.81 |
| **Haul total weight (kg)** | **429.13** | **2999.94** | **776.98** |

# RECENT TECHNICAL MEMORANDUMS

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