



NOAA Technical Memorandum NMFS-AFSC-195

Results of the 2008 Eastern Bering Sea Continental Shelf Bottom Trawl Survey of Groundfish and Invertebrate Resources

by
R. R. Lauth and E. Acuna

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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Abstract

The Resource Assessment and Conservation Engineering Division of the Alaska Fisheries Science Center conducts annual bottom trawl surveys to monitor the condition of the demersal fish and crab stocks of the eastern Bering Sea continental shelf. The standard study area encompasses a major portion of the eastern Bering Sea shelf between the 20-m and the 200-m isobaths and from the Alaska Peninsula north to approximately the latitude of St. Matthew Island (60°50'N). In 2008, two chartered trawlers, the 40-m FV *Arcturus* and the 40-m FV *Aldebaran* surveyed this area. Demersal populations were sampled by trawling for 30 minutes at stations centered within 37.04 × 37.04 km (20 × 20 nautical mile) grids covering the survey area. At each station, species composition of the catch was determined, and length distributions and age structure samples were collected from ecologically and commercially important species.

Three-hundred seventy-five of the 376 standard survey stations were sampled successfully. A total of 83 species of fishes representing 19 families and 54 genera as well as 174 species of invertebrates representing 12 phyla were identified in the catches from the entire survey area. The combined biomass of walleye pollock, yellowfin sole, and rock sole was 8.1 million metric tons (t) which was 75% of the total fish biomass. The biomass of invertebrates was composed primarily of echinoderms (1.6 million t) and crustaceans (0.75 million t).

Survey results presented in this report include abundance estimates for fishes and invertebrates, geographic distributions and size composition of principal fish species, and contour plots of surface and bottom temperatures during the survey sampling period. Appendices provide station data, summarized catch data by station, species listings, and detailed analyses of abundance and biological data of the sampled populations.

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Introduction

The eastern Bering Sea continental shelf supports one of the most productive groundfish and crab fisheries in the world (Bakkala 1993). Since 1970, groundfish such as walleye pollock (*Theragra chalcogramma*), yellowfin sole (*Limanda aspera*) and Pacific cod (*Gadus macrocephalus*) have been the primary target species among commercial catches. Although many species of groundfish are caught commercially, walleye pollock is the most abundant with catches ranging from 1.2 to 1.5 million metric tons (t) per year for the past 30 years, and marketed products represent 40% of the global whitefish market (Ianelli et al. 2008).

Since 1971, the National Marine Fisheries Service (NMFS) Resource Assessment and Conservation Engineering (RACE) Division of the Alaska Fisheries Science Center (AFSC) has conducted an annual bottom trawl survey in the eastern Bering Sea to determine the distribution and abundance of groundfish and crab resources.

The first large-scale survey of the eastern Bering Sea shelf was conducted in 1975 under contract from the U.S. Bureau of Land Management in response to a need for baseline data to assess the potential impact of proposed offshore oil exploration and development on fishery resources (Pereyra et al. 1976). During this baseline survey, sampling was conducted over the eastern Bering Sea shelf between the 20-m and 200-m isobaths from the Alaska Peninsula north to approximately 62°N.

In subsequent years, the area coverage of the annual surveys was reduced until 1979 when the most comprehensive survey of the Bering Sea shelf was undertaken in cooperation with the Japan Fisheries Agency (Bakkala and Wakabayashi 1985). That survey encompassed the entire region sampled in the 1975 baseline study plus the continental slope waters between

St. Matthew and St. Lawrence Islands. A hydroacoustic survey was also conducted in 1979 to assess the midwater component of the walleye pollock population.

Subsequent annual bottom trawl surveys have essentially resampled the stations established during the 1975 survey, with slight modifications each year. This region encompasses the major portion of economically important eastern Bering Sea groundfish and crab populations, except those primarily located in the deep continental slope waters. Commercial crab stocks managed by the Alaska Department of Fish and Game (ADF&G), are covered by the North Pacific Fishery Management Council's (NPFMC) Fishery Management Plan for the Commercial King and Tanner Crab Fisheries in the Bering Sea and Aleutian Islands Regions. Crab species of interest include Tanner crab (*Chionoecetes bairdi*), snow crab (*C. opilio*), two stocks of blue king crab (*Paralithodes platypus*), red king crab (*P. camtschaticus*), and hair crab (*Erimacrus isenbeckii*). Detailed results from the analysis of crab data from this survey are available in Chilton et al. (2008).

Beginning in 1979 and on a triennial basis through 1991, the survey was extended to include bottom trawl sampling of the continental slope and in the region between St. Matthew and St. Lawrence Islands. The continental slope was not surveyed from 1992 to 1999 but was resumed in 2000 as an independent bottom trawl survey series that is surveyed on a biennial basis (Hoff and Britt 2005). The most recent continental slope survey was conducted in 2008.

The groundfish information gathered by the annual biological surveys serves to: 1) provide annual fishery-independent estimates of abundance and biological condition of commercially exploited stocks to the NPFMC; 2) provide updates on the distribution and abundance information to commercial fishermen; and 3) continue a time-series database critical to our improved understanding of the population dynamics and interactions of groundfish

species. This report presents information collected by the AFSC on the eastern Bering Sea shelf during the 2008 bottom trawl survey, which represents the twenty-seventh contribution to the time series.

Methods

Survey Area and Sampling Design

The standardized eastern Bering Sea bottom trawl survey is based on a systematic design with a fixed sampling station at the center of each 37.04×37.04 km (20×20 nautical mile) grid square (Fig. 1). In areas surrounding St. Matthew and the Pribilof Islands, a high-density sampling of “corner stations” was implemented to better assess local blue king crab concentrations (Fig. 1). The original sampling design included 356 sampling stations that were sampled annually starting in 1982. Beginning in 1987, 20 additional stations in Strata 82 and 90 were added to the survey (Fig. 2) to investigate the distribution and abundance of opilio crabs and the northern distribution of walleye pollock. All results reported herein include data analyses for all 376 stations combined.

Sampling Logistics and Stratification Scheme

Survey trawl sampling began in Bristol Bay and stations were sampled along alternate, longitudinal columns (Fig. 2). When possible, using two vessels, this pattern of sampling proceeded westward to the shelf edge. This practice was designed to balance the coverage of the survey area between vessels. The progression from east to west was established in response to movements by yellowfin sole and perhaps other species, which may be migrating eastward during the course of the survey (Smith and Bakkala 1982).

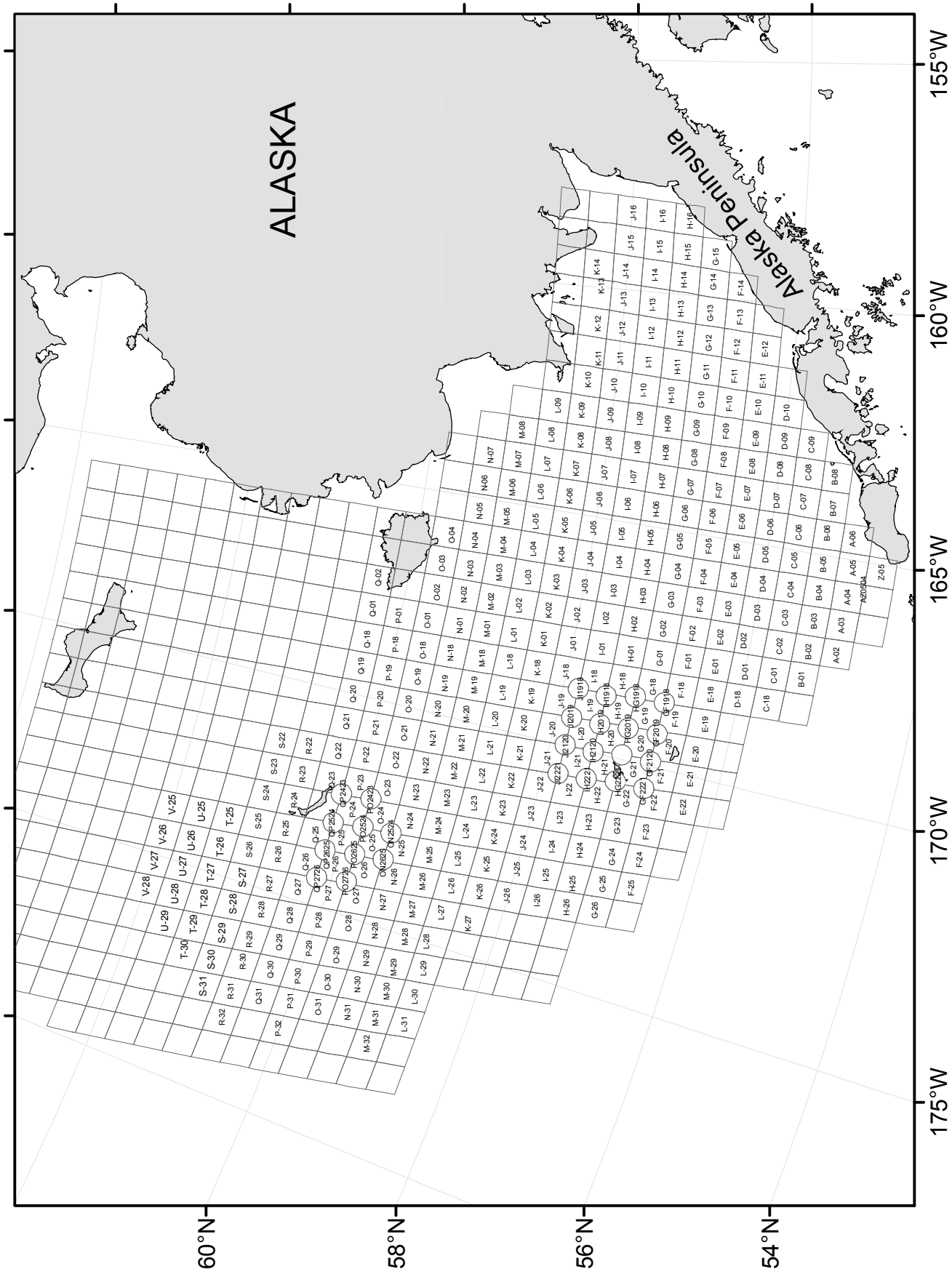


Figure 1. -- Grid map of sample stations for the 2008 eastern Bering Sea continental shelf bottom trawl survey.

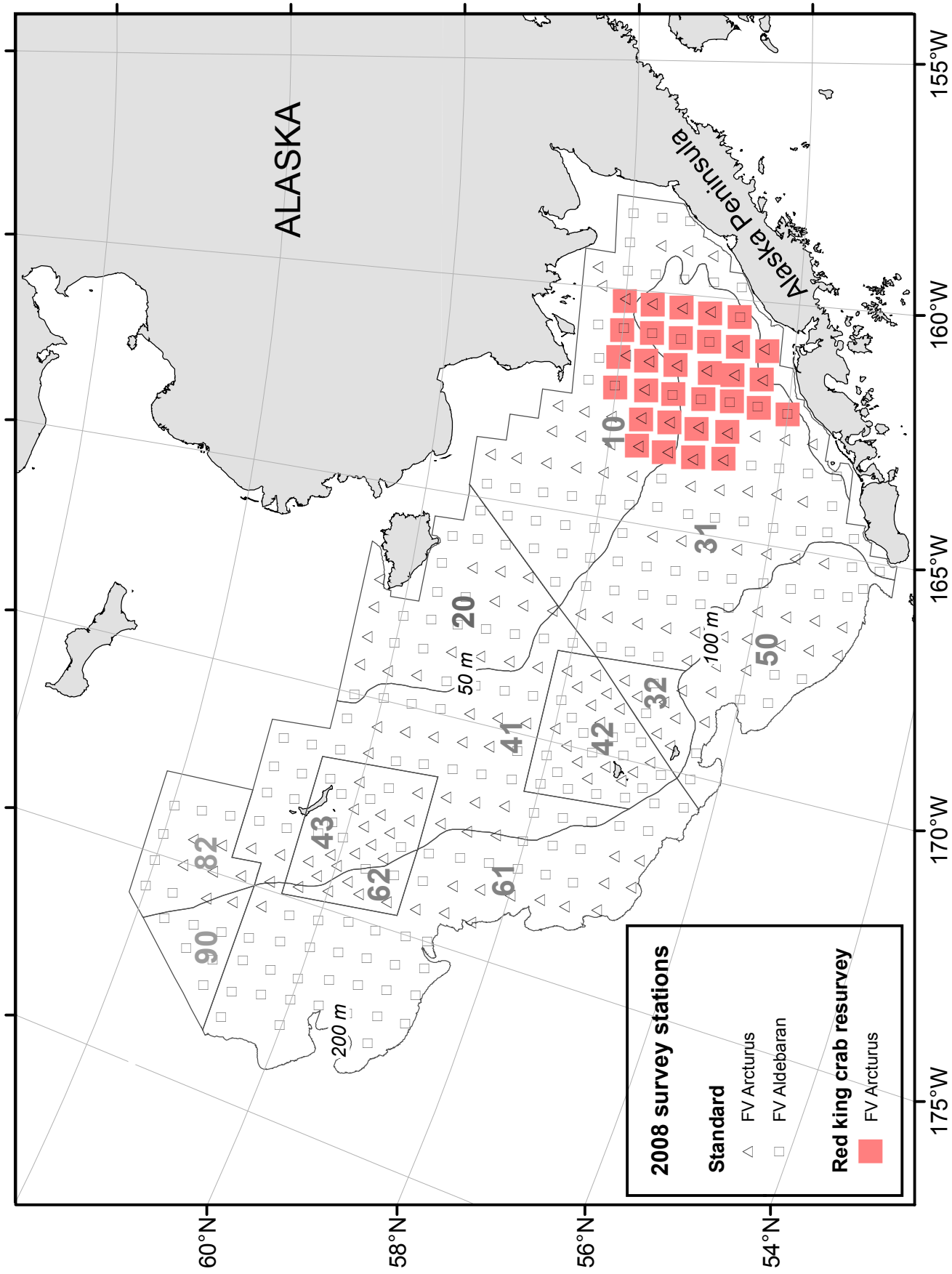


Figure 2. -- Sampled survey stations by vessel and the stratification scheme used for data analysis of the 2008 eastern Bering Sea bottom trawl survey.

For catch analysis, the survey region was divided into six strata bounded by the 50-m, 100-m, and 200-m isobaths and into two geographic strata that separate the northwest and southeast portions of the study area (Fig. 2). This stratification scheme best reflects the differences observed in Bering Sea groundfish across the different oceanographic domains, and the intention of the design was to reduce the variances of population and biomass estimates (Bakkala 1993). Localized high-density sampling for blue king crab in Strata 30, 40, and 60 necessitated a further subdivision into high-density and standard-density sample strata, resulting in a total of 12 strata.

The overall sampling density for the entire survey area was one station per 1,322 km² (Table 1). However, because of the high-density sampling in Strata 30, 40, and 60, and the irregular stratum boundaries, sampling density within the 12 subdivided strata varied from one station per 775 km² (Stratum 42) to one per 1,721 km² (Stratum 82).

Survey Vessels and Sampling Gear

From 30 May to 28 July 2008, the survey was conducted aboard the chartered commercial stern-trawlers FV *Arcturus* and FV *Aldebaran*. All fishing operations were conducted in strict compliance to national and regional protocols detailed in Stauffer (2004). Both vessels were equipped with standard 83-112 Eastern otter trawls, which have 25.3-m (83 ft) headropes and 34.1-m (112 ft) footropes (Fig. 3). These nets were attached to tail chains with 54.9-m (30 fathom) paired dandylines. Each lower dandyline had a 0.61-m chain extension connected to the lower wing edge to improve bottom-tending characteristics. Steel "V"-doors measuring 1.8 × 2.7 m and weighing 816 kg each were used.

Table 1. -- Stratum areas and sampling densities for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Stratum subdivisions	Representative area (km ²)	Stations successfully sampled	Sampling density (km ² / station)
10	--	77,871	58	1,343
20	--	41,027	31	1,323
30	--	103,300	77	1,342
	31	94,526	69	1,370
	32	8,774	8	1,097
40	--	107,822	97	1,112
	41	62,703	44	1,425
	42	24,011	31	775
	43	21,108	22	959
50	--	38,792	26	1,492
60	--	94,562	67	1,411
	61	88,134	60	1,469
	62	6,429	7	918
82	--	20,655	12	1,721
90	--	11,568	8	1,446
Strata combined		495,599	376	1,318

83/112 EASTERN

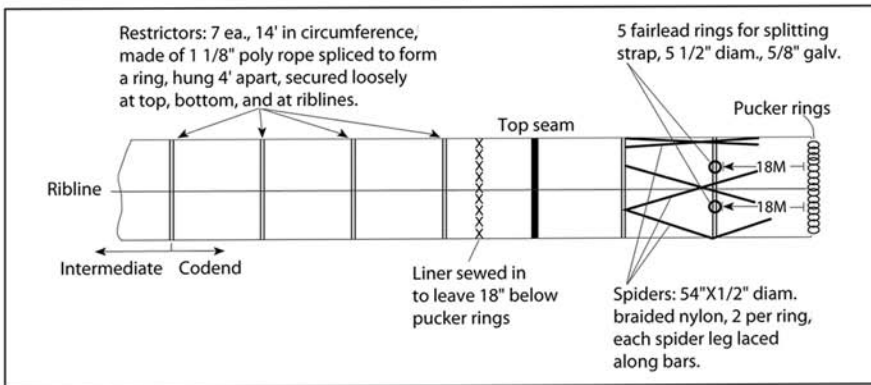
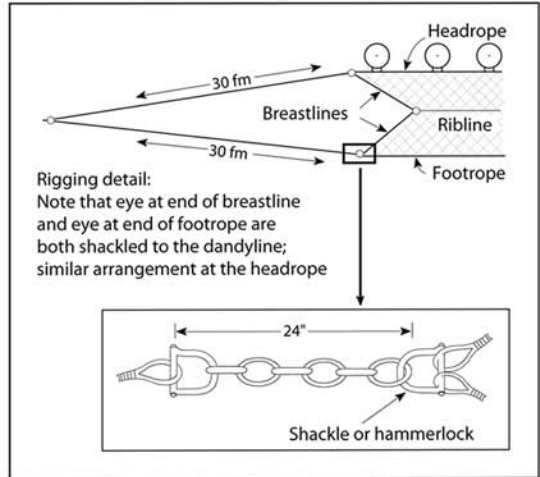
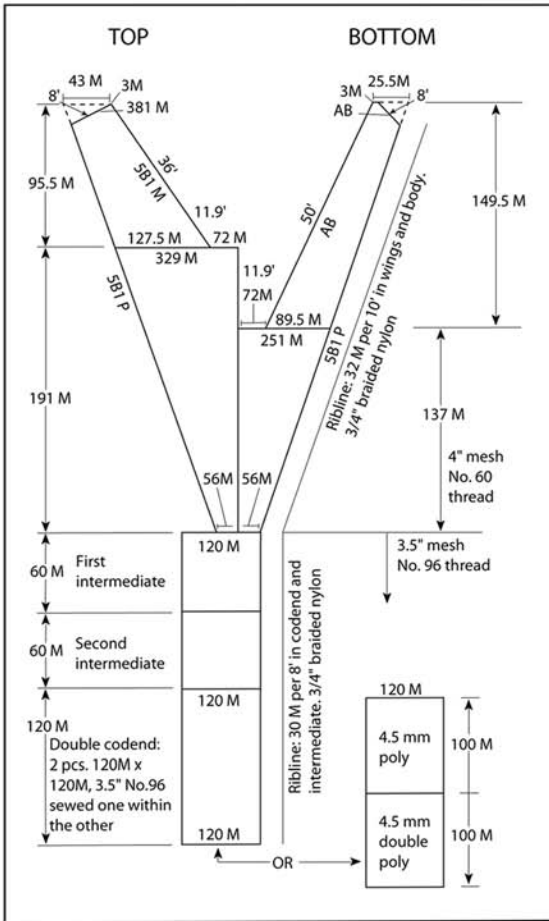


Figure 3. -- Schematic diagram of the 83/112 Eastern otter trawl gear used during the 2008 eastern Bering Sea bottom trawl survey

Netmind net mensuration systems (Northstar Technical Inc., St. John's, Newfoundland) were used aboard each vessel to monitor and record net height and width during fishing operations. Net width was measured as the distance between two sensors attached to the upper starboard and port dandyines, about 0.61 m in front of the net, and net height was measured from the headrope to the seafloor bottom. Estimates of mean net width were used in calculations of the area-swept per tow (Rose and Walters 1990). For tows without observed net width values, a mean net width-inverse scope regression (Zar 1999) was used because it accounts for a majority of the variation for the eastern Bering Sea standard survey trawl (Rose and Walters 1990; Fig. 4).

Catch Sampling Procedures

Detailed sampling procedures used in RACE eastern Bering Sea assessment surveys are described in detail by Wakabayashi et al. (1985) and Stauffer (2004). A brief summary of these procedures is described below.

Samples were collected by trawling near the center of each grid square (or corner station, in the case of high-density strata) for a target fishing time of 30 minutes and towing at a speed of 1.54 m/sec (3 knots). If the seafloor appeared to be untrawlable at the specified location, the nearest trawlable site within the same grid square was used. If the net was damaged or the net impacted by bottom structure during the trawl, the catch was discarded and a new sample obtained.

Catches estimated to be less than approximately 1,150 kg (2,500 lb) were typically enumerated entirely while larger catches were subsampled. After sorting the subsample,

individual species were weighed in aggregate and counted and these weights and numbers were expanded to the total catch.

Fishes and invertebrates were identified and sorted to the lowest taxonomic level practicable. Similar morphological features between flathead sole (*Hippoglossoides elassodon*) and Bering flounder (*H. robustus*) make accurate identification of these species difficult in areas where the two species overlap; thus, in the analysis for this report these species are grouped by genus (*Hippoglossoides* spp.). Due to low abundance (believed to be < 1%) of southern rock sole (*Lepidopsetta bilineata*) and its morphological similarities to northern rock sole (*L. polyxystra*; Orr and Matarese 2000), these species were also grouped by genus (*Lepidopsetta* spp.) for this report.

Catch weights and numbers by species or species group were either estimated directly when subsampled, or estimated by extrapolating the proportion in the subsample to that of the entire catch weight. All Pacific halibut (*Hippoglossus stenolepis*), Greenland turbot (*Reinhardtius hippoglossoides*), skates, and commercial crab species were weighed and enumerated from each catch. Other fish species (such as certain sculpins, rarely encountered species, sharks) may have been completely sorted from the catch as well.

Random samples of approximately 200 fish of each selected abundant species from each haul were used for length measurements. Size composition data were collected for each commercially important groundfish species and many co-occurring species (Table 2). The sex of each specimen was determined then each was measured to the nearest centimeter (fork length measurement). Unless retained for sampling by the International Pacific Halibut Commission (IPHC) for management purposes, Pacific halibut were measured upon capture and immediately

returned to the sea in an effort to reduce mortality; weights were estimated using an IPHC regression.

Sagittal otoliths were collected from 14 fish species in both the northwestern and southeastern divisions of the survey area (Table 3). The eastern Bering Sea was divided into low and high-density strata for walleye pollock otolith sampling based on historical density data and a depth contour of approximately 70 m. Otoliths were collected from all hauls in which the total number of walleye pollock was 20 or more. Walleye pollock samples for otolith collection were selected at random from fish samples prior to sex determination. Six pairs of otoliths were collected in high-density strata and four in low-density strata. If walleye pollock length samples were stratified by size (i.e., separated into juveniles and adults before measuring), two of either the four or six otolith pairs were taken from juveniles.

Three otolith pairs per sex-centimeter interval per vessel (six pairs total) were collected for Pacific cod, arrowtooth flounder (*Atheresthes stomias*), starry flounder (*Platichthys stellatus*), Greenland turbot, Bering flounder, and bigmouth sculpin (*Hemitripterus bolini*). Five otolith pairs per sex-centimeter interval by vessel (10 pairs total) were collected for yellowfin sole. Northern rock sole, flathead sole, and Alaska plaice (*Pleuronectes quadrituberculatus*) were also collected at five otolith pairs per sex-centimeter interval, but on only one vessel. Pacific halibut otoliths were collected aboard the FV *Aldebaran* by the IPHC for population and growth analyses, and Alaska skate (*Bathyraja parmifera*) vertebrae were collected aboard the FV *Arcturus*.

Individual fish weights were collected for all species for which age structures were taken. Otoliths for roundfish were preserved in 70% ethanol, flatfish otoliths were preserved in 50% glycerol-thymol solution, and skate age structures (vertebrae) were frozen.

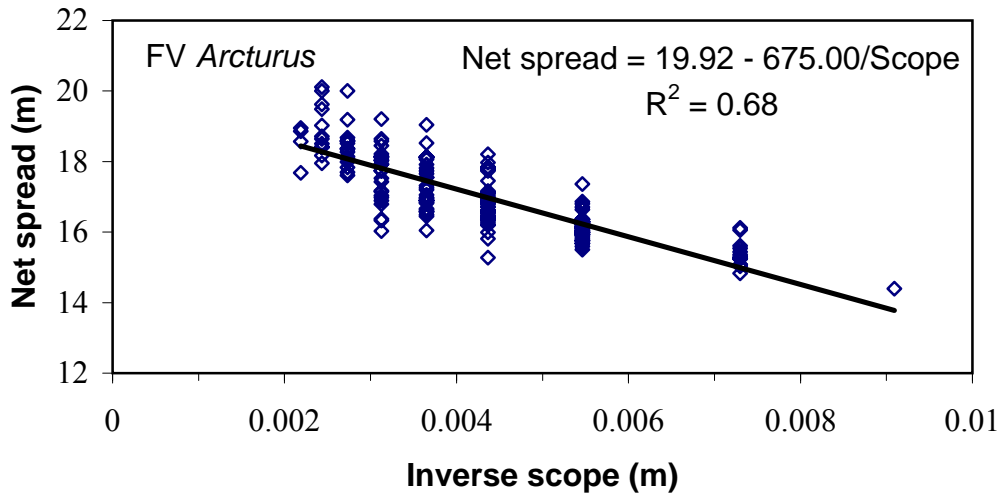
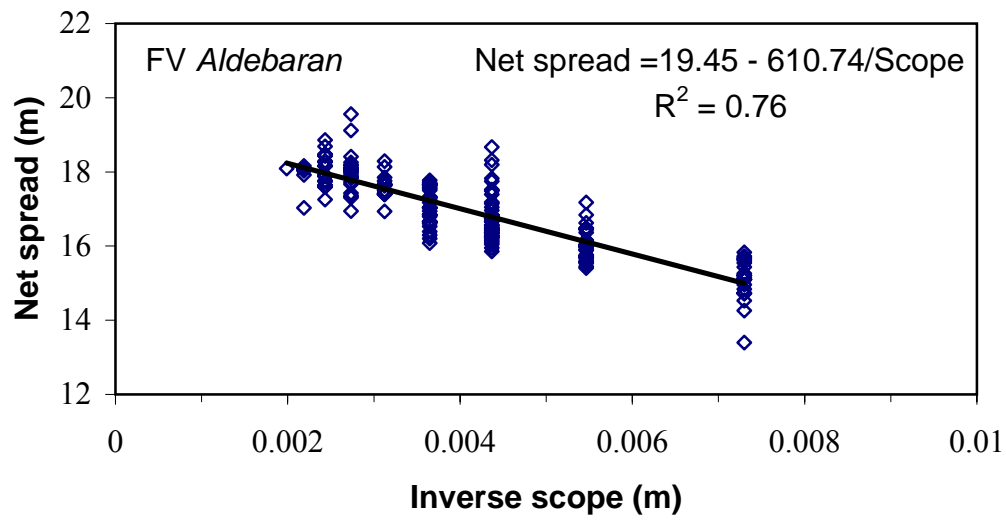


Figure 4 . -- Net spread-inverse scope (wire-out) relationship for each vessel participating in the 2008 eastern Bering Sea trawl survey.

Table 2. -- Number of length measurements by species and stratum made during the 2008 eastern Bering Sea bottom trawl survey.

Common name	Stratum								Total
	10	20	30	40	50	60	82	90	
Alaska plaice	4,122	3,204	2,849	2,557	0	47	21	4	12,804
Alaska skate	412	402	833	1,321	76	855	57	175	4,131
Aleutian skate	0	0	0	0	10	15	0	0	25
Arctic cod	0	204	0	1,277	0	171	666	48	2,366
arrowtooth flounder	43	0	3,204	1,149	3,965	4,107	0	4	12,472
Atka mackerel	0	0	0	0	0	1	0	0	1
Bering flounder	0	23	0	1,213	0	273	700	573	2,782
Bering skate	0	0	38	11	82	88	0	4	223
big skate	1	0	3	0	0	0	0	0	4
bigmouth sculpin	0	0	47	56	14	108	0	0	225
blackspotted rockfish	0	0	0	0	3	0	0	0	3
butter sole	19	0	34	0	0	0	0	0	53
butterfly sculpin	0	0	0	49	0	0	8	0	57
chum salmon	1	0	0	0	0	0	0	0	1
Dover sole	0	0	1	0	14	1	0	0	16
flathead sole	257	2	5,571	1,891	3,531	5,115	0	63	16,430
great sculpin	136	30	182	228	1	165	4	35	781
Greenland turbot	0	0	4	92	0	155	30	125	406
Kamchatka flounder	1	0	326	237	591	1,485	0	84	2,724
longhead dab	1,105	280	0	0	0	0	0	0	1,385
longnose skate	0	0	0	0	1	0	0	0	1
marbled eelpout	0	1	0	20	0	0	20	0	41
mud skate	0	0	0	0	3	0	0	0	3
northern rock sole	9,908	4,101	8,674	5,914	59	748	1	17	29,422
northern rockfish	0	0	0	0	19	0	0	0	19
Pacific cod	3,350	1,665	2,202	4,362	301	1,091	113	346	13,430
Pacific halibut	1,454	544	981	380	46	151	2	5	3,563
Pacific ocean perch	0	0	0	0	35	6	0	0	41
plain sculpin	1,210	918	12	303	0	2	3	0	2,448
rex sole	2	0	53	4	714	495	0	0	1,268
saffron cod	24	69	1	25	0	0	0	1	120
Sakhalin sole	0	2	0	9	0	1	7	0	19
shortfin eelpout	0	0	4	206	43	740	1	196	1,190
southern rock sole	0	0	50	0	0	0	0	0	50
starry flounder	869	72	180	1	0	0	0	0	1,122
walleye pollock	893	214	4,355	5,436	888	7,204	260	1,225	20,475
warty sculpin	8	8	13	253	0	13	1	0	296
wattled eelpout	0	0	34	312	0	84	45	69	544
whiteblotched skate	0	0	0	0	1	0	0	0	1
yellow Irish lord	0	0	92	478	1	32	0	0	603
yellowfin sole	9,202	5,418	7,316	3,896	0	0	14	2	25,848
Total	33,027	17,177	37,089	31,720	10,448	23,213	2,035	3,066	157,393

Table 3. -- Number of fish from which age structures (otoliths) were collected by species and stratum during the 2008 eastern Bering Sea bottom trawl survey.

Common name	Stratum								Total
	10	20	30	40	50	60	82	90	
Alaska plaice	162	24	114	44	0	7	2	4	357
Alaska skate ^a	41	25	48	20	18	29	0	0	181
arrowtooth flounder	7	0	272	72	174	270	0	0	795
Bering flounder	0	9	0	211	0	0	45	4	269
bigmouth sculpin	0	0	42	49	14	83	0	0	188
flathead sole	16	0	286	33	25	228	0	0	588
Greenland turbot	0	0	2	49	0	98	21	75	245
northern rock sole	127	47	76	89	18	13	0	0	370
Pacific cod	319	121	228	319	44	176	0	23	1,230
Pacific halibut ^b	614	298	559	100	13	82	1	4	1,671
plain sculpin	111	29	0	34	0	2	0	0	176
starry flounder	196	17	27	0	0	0	0	0	240
walleye pollock	98	51	344	339	42	323	12	50	1,259
yellowfin sole	298	228	131	198	0	0	3	0	858

^aSkate vertebrae were collected for ageing.

^bInternational Pacific Halibut Commission (IPHC) manages and analyzes age structure collection.

Surface and bottom water temperatures, as well as temperature and depth profiles, were recorded at 1-second intervals at each station using a Sea-Bird SBE-39 datalogger (Sea-Bird Electronics Inc., Bellevue, WA) attached to the headrope of the trawl. Depth to bottom was obtained by adding net height to headrope depth.

Catch Data Analysis

Trawl survey catch data were used to estimate: 1) relative abundance; 2) population biomass; 3) population numbers, and 4) population abundance by size class. A brief description of the procedures used in the analysis of RACE Bering Sea survey data follows (for a detailed description see Wakabayashi et al. 1985). Note: some of the species collected were grouped by family for catch data analysis because of their limited commercial value or uncertain identification.

Mean catch per unit effort (CPUE) values for each species were calculated in kilograms per hectare ($1 \text{ ha} = 10,000 \text{ m}^2$) and number per hectare for each of the 10 strata; area swept (hectares) was computed as the distance towed multiplied by the mean net width (Alverson and Pereyra 1969). Mean CPUE values were calculated for individual strata and for the overall survey area. Biomass and population estimates were derived for each stratum by multiplying the stratum mean CPUE by the stratum area. Stratum totals were then summed to produce estimates for each of the six main strata and the total survey area.

For size composition estimates, the proportion of fish at each length interval (from subsamples at each station), weighted by CPUE (number of fish/ha), was expanded to the stratum population. Stratum estimates were summed to derive the estimated size composition for each of the six main strata and for the overall survey area.

Except for Pacific halibut, otolith samples collected during the survey were read for age estimates by staff of the Age and Growth Program of the AFSC's Resource Ecology and Fisheries Management (REFM) Division. Age, growth, and population analyses will be presented in separate reports (e.g., Ianelli et al. 2008).

Additional Research Projects

In addition to the survey operations, there were 18 research projects undertaken during 2008 (Table 4). The RACE Division projects included studies of: 1) acoustic data collection for augmenting the midwater assessment of walleye pollock; 2) fish behavior in response to light and vessel noise; 3) fish and crab reproduction and pathology; 4) summer zooplankton biomass; 5) octopus taxonomy and morphometrics; 6) characterization of the benthic infauna community, and 7) king crab population genetics. The REFM Division and the AFSC's Auke Bay Laboratories (ABL) special studies projects included: 1) fish stomach scans and collections (Table 5); 2) a short-tailed albatross survey; 3) seasonal energy reserves of gadoids; 4) tagging of Alaska skates; 5) energy content and diet of forage fishes; 6) snailfish taxonomy and food habits; 7) tissue collections for a DNA-based identification library, and 8) voucher specimen collections. Projects from outside the AFSC involved: 1) halibut otolith, tag and size collections by the IPHC; 2) reproductive potential of snow and Tanner crabs by the ADF&G; 3) collection of biological and oceanographic data for the Bering Sea Integrated Ecosystem Research Program (BSIERP) and the Pacific Marine Environmental Laboratory (PMEL), and 4) collection of data by University of Alaska Seward (UAS) to develop a reproductive index for male snow crab.

Table 4. -- Research projects and collections undertaken during the 2008 eastern Bering Sea bottom trawl survey.

Project title	Principal Investigator	Agency
Alaska skate vertebrae collection	Olav Ormseth / Gerald Hoff	AFSC ¹ -RACE ²
Bitter crab syndrome in North Pacific <i>Chionoecetes</i> spp.	Frank Morado	AFSC - RACE
BSIERP oceanographic sampling	Edward D. (Ned) Cokelet	NOAA ³ /PMEL ⁴
Characterization of benthic infauna community for modeling essential fish habitat in the Eastern Bering Sea	Cynthia Yeung / Mei-Sun Yang	AFSC - RACE/REFM ⁵
DNA barcoding the marine fish of Alaska	Mike Canino / Linda Park	AFSC-RACE/NWFSC ⁶
DNA-based identification library of prey items	Frank Morado / Kerim Aydin	AFSC - RACE/REFM
Gadoid liver seasonal energy reserves	Troy Buckley / Olav Ormseth	AFSC - REFM
<i>Ichthyophonus</i> in walleye pollock	Frank Morado	AFSC - RACE
Incidental sightings of the endangered short-tailed albatross	Shannon Fitzgerald	AFSC - REFM
IPHC sampler aboard one vessel to collect halibut data	Lauri Sadorus	IPHC ⁷
Light intensity on the distribution of walleye pollock	Stan Kotwicki	AFSC - RACE
Reproductive potential of Bristol Bay red king crab	Kathy Swiney	AFSC-RACE
Reproductive potential of snow and tanner crabs	Laura Slater / Joel Webb	ADFG ⁸
Stable isotope analysis (stomach collection)	Kerim Aydin / Katie Dodd	AFSC - REFM
Stable isotope analysis (stomach scans)	Kerim Aydin / Katie Dodd	AFSC - REFM
Tagging of Alaska skates on the Bering Sea shelf	Olav Ormseth / Gerald Hoff	AFSC - REFM - RACE
Trophic interactions and feeding ecology	Kerim Aydin / Troy Buckley	AFSC- REFM
Zooplankton biomass on the eastern Bering Sea shelf	Jeff Napp	AFSC - RACE

¹Alaska Fisheries Science Center, Seattle, Washington

²Resource Assessment and Conservation Engineering Division, Seattle, Washington

³National Oceanic and Atmospheric Administration, Seattle, Washington

⁴Pacific Marine Environmental Laboratory, Seattle, Washington

⁵Resource Ecology and Fisheries Management Division, Seattle, Washington

⁶Northwest Fisheries Science Center, Seattle, Washington

⁷International Halibut Commission, Seattle, Washington

⁸Alaska Department of Fish and Wildlife, Kodiak, Alaska

Table 5. -- Stomach samples collected and scanned onboard during the 2008 eastern Bering Sea bottom trawl survey.

Species	Stomachs collected
Alaska plaice	229
Alaska skate	773
Arrowtooth flounder/ Kamchatka flounder	701
Flathead sole/ Bering flounder	658
Great sculpin	34
Greenland turbot	99
Longhead dab	70
Misc. species	200
Northern rock sole	286
Pacific cod	1,233
Pacific halibut	657
Walleye pollock	1,530
Yellowfin sole	260
Total	6,730

Results and Discussion

A total of 375 stations were successfully sampled in 2008 and one station was abandoned in 2008 after several repeated attempts resulted in gear damage (Fig. 2). Any hauls that experienced significant gear damage or debris such as discarded crab pots were re-sampled immediately following the original haul. Haul data for successfully trawled stations used in the analyses are listed in Appendix B along with the relevant information about each station such as position, tow parameters (net width, depth, distance fished, and duration of haul), time, and environmental measurements (surface and gear temperatures) for each vessel.

After the FV *Arcturus* completed the standard survey sampling in mid-July, it returned to Bristol Bay to resample 32 stations for female red king crab (Fig. 2). It was necessary to resample the stations because the female red king crab had not yet molted and extruded their eggs when the stations were first sampled in early June. An accurate estimate of the abundance of molted and spawned female red king crab is critical to managers for determining if the red king crab population is overfished.

Ocean Conditions

Sea surface temperatures recorded during the survey ranged from 0° to 8.1°C (Fig. 5). As in most previous surveys, surface temperature increased from east to west across the shelf, reflecting the progression of summer warming as the survey proceeded. Sea bottom temperatures ranged from -1.7° to 4.4°C (Fig. 6). Warmer bottom temperatures (above 3.0° C) occurred along the inner shelf from the northern portion of Bristol Bay to Nunivak Island, and most of the outer shelf west of the 100 m contour. Again in 2008, a cold pool (<2°C) occupied most of the

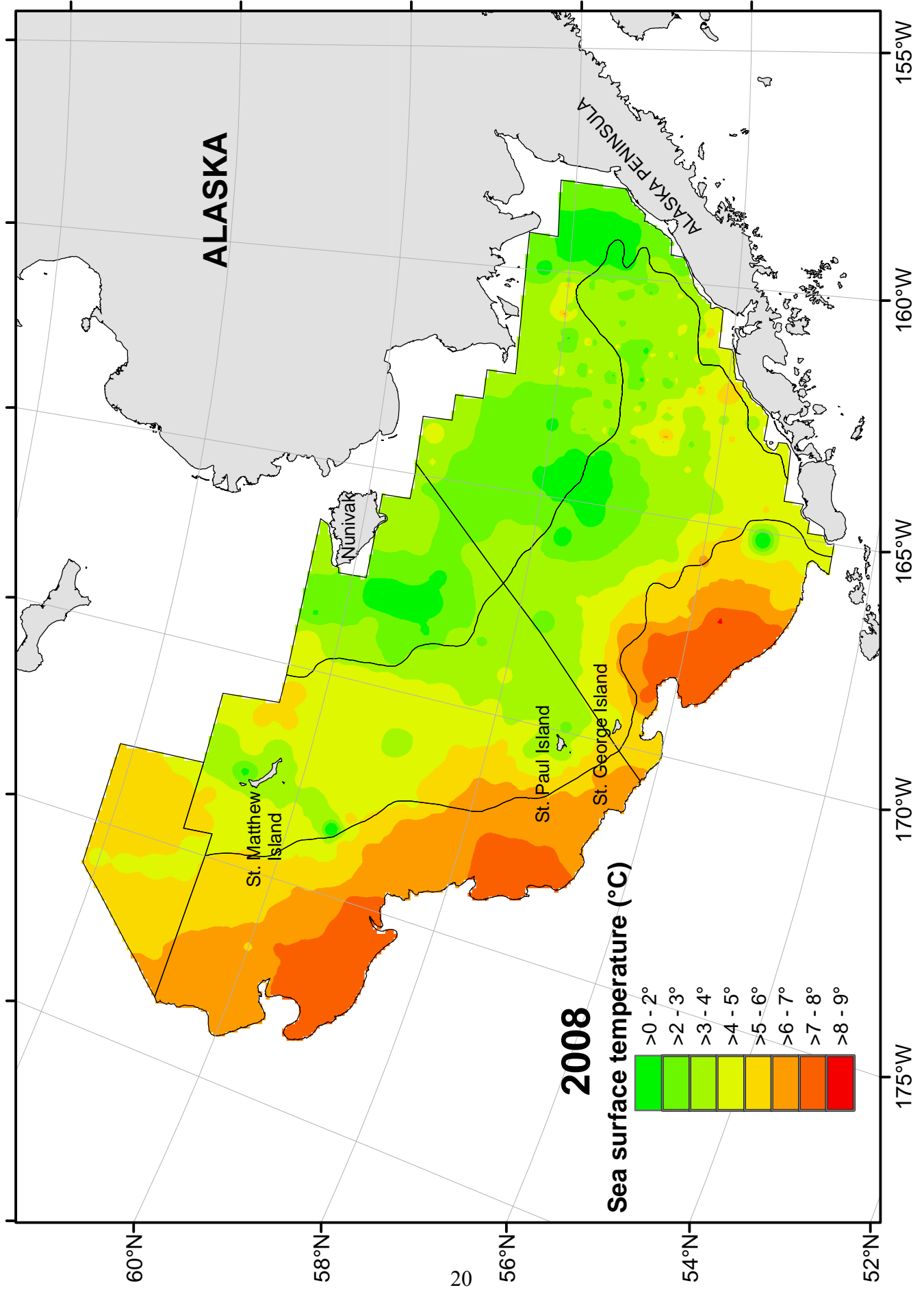


Figure 5. -- Distribution of sea surface water temperatures (°C) observed during the 2008 eastern Bering Sea bottom trawl survey.

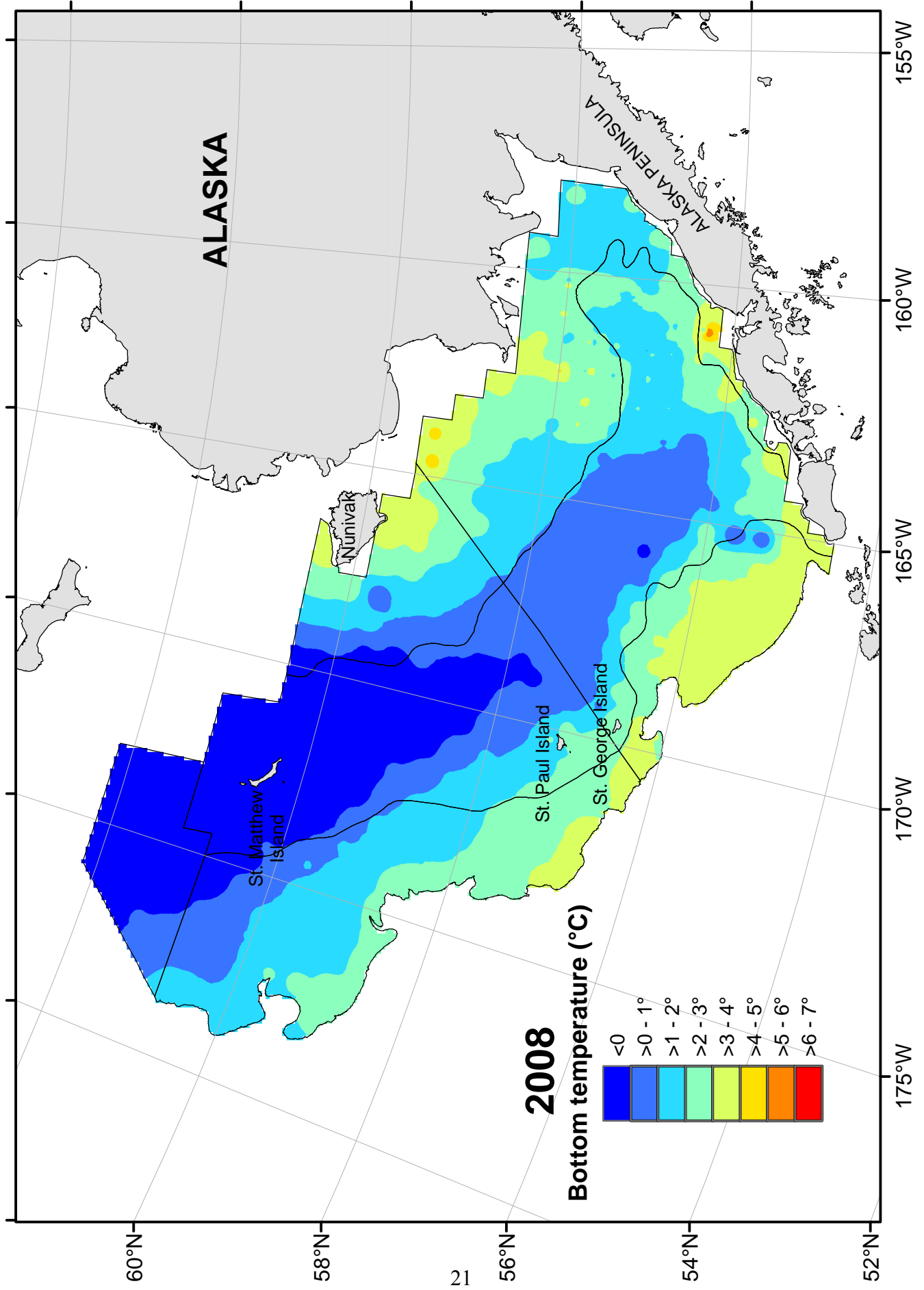


Figure 6. -- Distribution of bottom water temperatures (°C) observed during the 2008 eastern Bering Sea bottom trawl survey.

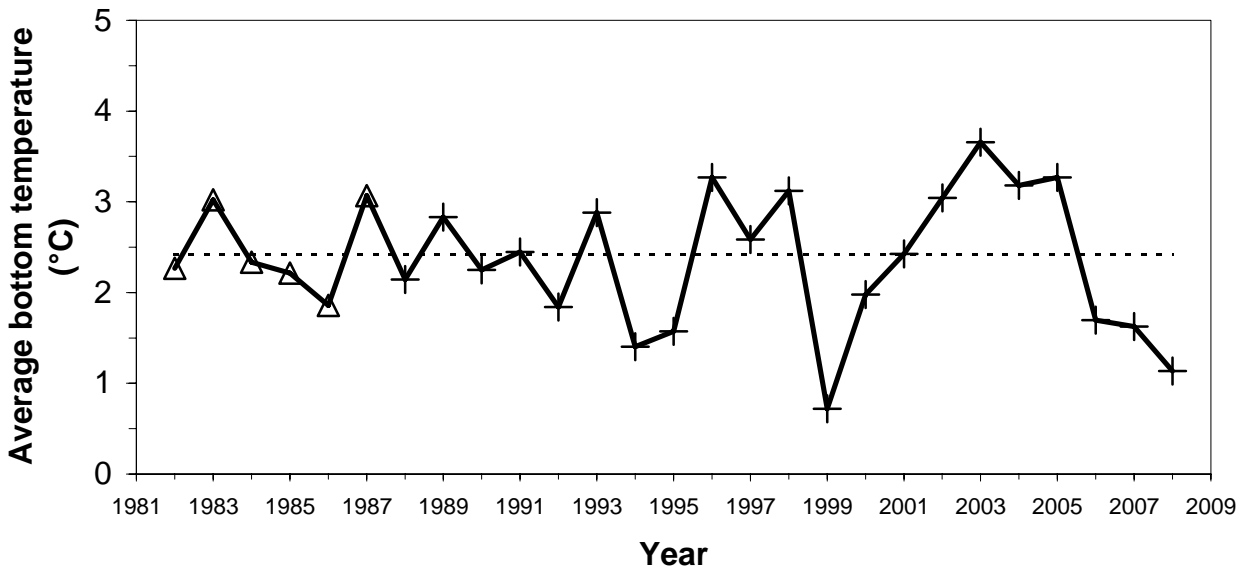
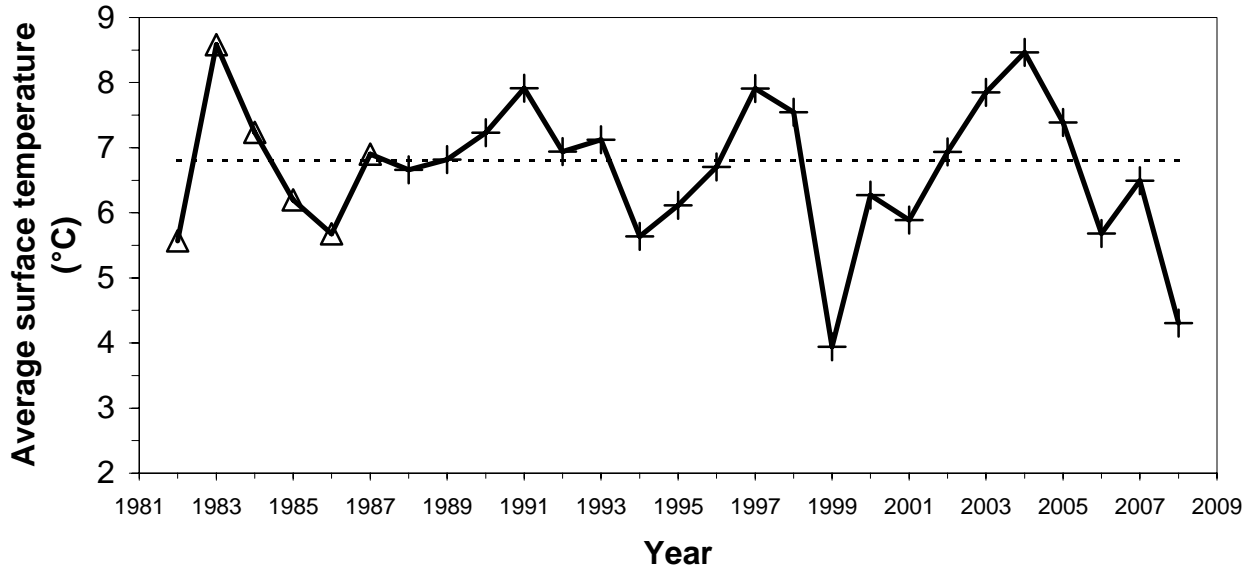


Figure 7. -- Mean survey surface and bottom temperatures weighted by stratum based on expendable bathythermograph casts or digital dataloggers attached to the headrope during the eastern Bering Sea bottom trawl surveys from 1982-2008. The 1982-1987 means (triangles) are based on the standard survey area (see Fig. 1) and the 1988-2008 means are based on the expanded survey area. The dashed lines represent the grand mean water temperatures for 1982-2007.

mid-shelf at depths between 50 and 100 m and extended south to the Alaska Peninsula and into Bristol Bay.

Average surface (4.3°C) and bottom (1.1°C) water temperatures were lower than 2007, and below the long-term mean from 1982 to 2007 for the surface (6.8°C) and for the bottom (2.4°C; Fig. 7).

Relative Fishing Powers of Survey Vessels

Historically, two vessels have been used to conduct the eastern Bering Sea shelf bottom-trawl survey, and fishing power corrections (FPC) have been applied when statistical differences of mean CPUE values were detected between the two vessels (Kappenman 1992). In 2006, application of an FPC was discontinued because of concerns that it was not correcting for vessel effect but was increasing the overall error in CPUE estimates. The underlying assumption for using an FPC was that one survey vessel was less efficient at sampling than the other survey vessel and that systematic error caused by vessel effects warranted correction (Munro 1998). Table 6 lists the calculated FPCs, by fish species, which were applied to CPUE estimates for the less-efficient survey vessel for survey years 1982-2005. Concerns about using an FPC were raised by studies showing that overall error in CPUE estimates can actually increase unless there are substantial differences between vessels (Munro 1998). Survey gear research done by the AFSC (Somerton and Weinberg 2001, Weinberg 2003, Kotwicki and Weinberg 2005, Kotwicki et al. 2006, Weinberg and Somerton 2006, Weinberg and Kotwicki 2007) and real time monitoring and data collection of trawl and vessel performance (Zimmerman et al. 2003) has increased our awareness and helped us to reduce possible systematic errors associated with “vessel effects”. Moreover, a detailed investigation of our methodologies used for post-

Table 6. -- Calculated fishing power corrections (FPC) applied to CPUE estimates by fish species for the "less-efficient" survey vessel for survey years 1982-2005.

Year	Rajidae	Alaska skate	Arrowtooth flounder	Kamchatka flounder	<i>Atheresthes</i> spp.	Pacific halibut	<i>Hippoglossoides</i> spp.	Yellowfin sole	<i>Lepidopsetta</i> spp.	Alaska plaice	Pacific cod	Walleye pollock
1982	--	--	--	--	--	0.952	--	--	--	--	--	--
1983	--	--	0.787	--	--	0.826	--	0.943	--	0.741	--	0.885
1984	--	--	--	--	--	--	0.73	--	--	0.943	0.901	0.807
1985	--	--	--	--	--	--	0.909	0.901	0.935	--	--	0.971
1986	--	--	0.952	--	--	--	--	--	0.98	0.98	--	0.98
1987	--	--	0.901	--	--	--	--	0.926	--	0.935	0.87	--
1988	0.723	--	--	--	--	--	0.957	0.776	0.977	0.907	--	0.969
1989	--	--	--	--	0.877	0.685	0.949	--	0.976	0.907	--	--
1990	0.776	--	--	--	--	0.951	0.869	--	--	0.898	--	0.994
1991	--	--	--	--	--	0.902	--	--	--	--	--	--
1992	--	--	--	--	0.781	0.847	0.877	0.901	0.909	0.943	0.917	0.971
1993	--	--	0.787	--	--	--	--	--	0.885	--	0.917	0.87
1994	0.862	--	0.855	--	--	0.97	0.909	0.99	0.877	--	0.99	--
1995	0.787	--	--	--	--	--	--	--	--	--	--	--
1996	0.893	--	--	--	--	0.926	--	0.926	0.885	--	--	0.833
1997	0.98	--	--	--	--	0.877	0.943	--	0.926	0.971	--	0.877
1998	--	--	--	--	--	0.962	0.98	0.901	--	--	0.909	0.93
1999	0.807	--	--	--	--	--	0.994	0.921	0.916	0.77	0.945	--
2000	--	--	--	--	--	--	0.982	--	0.944	--	--	0.898
2001	--	--	--	--	--	0.91	--	0.767	0.922	--	0.951	--
2002	--	0.733	--	--	0.906	--	0.92	0.883	0.952	0.979	0.901	0.972
2003	--	--	--	--	0.941	--	--	0.913	--	--	0.989	--
2004	--	0.96	--	--	--	--	--	--	--	0.939	0.874	--
2005	--	0.765	0.829	--	--	0.881	--	--	--	0.979	--	0.815

processing of data and area-swept calculations revealed systematic errors that may have otherwise been attributed to vessel effects.

Another reason why the overall error of FPC-adjusted CPUE estimates was probably artificially high was nonrandom selection of stations from alternate columns for calculating the FPC. Without random selection of stations, it was possible that observed differences between vessels were actually real differences in fish distribution and abundance. For example, the location and timing of the cold pool on the eastern Bering Sea shelf has a dramatic effect on fish distribution, so if one vessel is sampling a column inside the cold pool and the other is sampling in the adjacent column outside the cold pool, differences in catch rates between the two vessels may due to the effect of the cold pool on fish distribution rather than a vessel-effect.

The RACE Groundfish Assessment Program is continuing to investigate sources of systematic error and to devise methods for minimizing systematic error in area-swept calculations (Stan Kotwicki, AFSC; personal communication). Before these new methods can be implemented, it will be necessary to reconcile historical data and complete the development of a new relational database for accessing stream data for doing area-swept calculations. Until this can be accomplished, application of an FPC adjustment will not be done; however, so as not to affect the historical time series, FPC adjustments made to catches prior to 2006 will remain unchanged.

Relative Abundance

The relative abundance of the 11 most abundant species and species groups of fishes are presented in Figure 8. These taxa accounted for 63% (199 kg/ha) of total catch mean CPUE

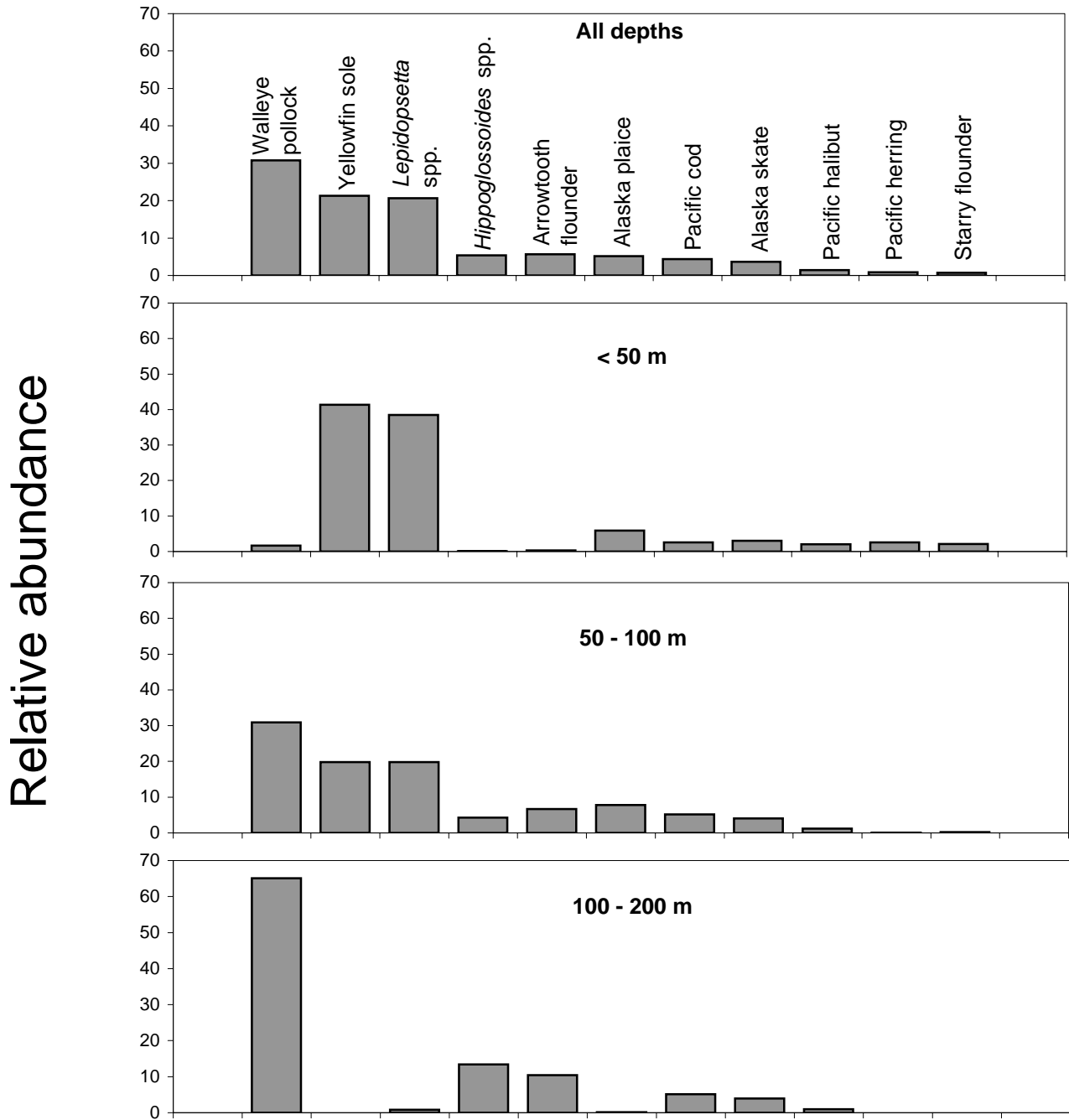


Figure 8. -- Relative abundance (%CPUE in kg/ha) of principal groundfish species (top 11 for all depths combined) by depth zones and for all depths combined for the 2008 eastern Bering Sea bottom trawl survey.

(316 kg/ha) and 84% of total fish mean CPUE (237 kg/ha). The walleye pollock mean CPUE for all areas combined was 61.2 kg/ha. Walleye pollock was the dominant groundfish species at depths between 50 and 200 m. This species was encountered at nearly all sampling stations, with the largest mean catches observed in the outer shelf stations. Pacific cod were also caught primarily in the 50-200 m depth zone with an overall mean CPUE of 8.7 kg/ha. Rock sole, as well as yellowfin sole, with overall mean catch rates of 41.0 and 42.4 kg/ha, respectively, were abundant in water less than 50 m. See Appendix C for a descending rank of all organisms caught.

Biomass, Abundance, Distribution, CPUE, and Size Composition of Principal Species and Species Groups

A total of 83 species of fishes representing 19 families and 54 genera were identified in the catches from the entire survey area (Appendix A1). In addition, a total of 272 individual invertebrate taxa were identified from 12 phyla with 174 identified to the species level (Appendix A2).

Total demersal animal biomass for the standard survey area was estimated at 14.3 million t, of which fish species accounted for 76% (10.8 million t; Table 7) and invertebrates 24% (3.5 million t; Table 8). Greatest concentrations of fish biomass were located in Bristol Bay, along the Alaska Peninsula, around the Pribilof Islands, and in the outer shelf northwest of the Pribilofs (Fig. 9). The fish biomass was dominated by pleuronectids (6.6 million t) and gadids (3.5 million t; Table 7). The biomass of invertebrates was composed primarily of echinoderms (1.6 million t) and crustaceans (0.75 million t; Table 8).

Geographic distributions, population numbers, biomass estimates, and size composition are presented in Figures 9 - 48 and Tables 9 - 28 for each of the following eastern Bering Sea groundfish: walleye pollock; Pacific cod; yellowfin sole; northern and southern rock sole grouped; flathead sole and Bering flounder grouped; Alaska plaice; Greenland turbot; arrowtooth flounder; Kamchatka flounder (*Atheresthes evermanni*); Pacific halibut; starry flounder; Bering skate (*Bathyraja interrupta*); Alaska skate; warty sculpin (*Myoxocephalus verrucosus*); great sculpin (*M. polyacanthocephalus*); plain sculpin (*M. jaok*); bigmouth sculpin; wattled eelpout (*Lycodes palearis*); shortfin eelpout (*L. brevipes*), and marbled eelpout (*L. raridens*). Estimated biomass and population numbers are given separately for each of the 12 geographic strata used in the analysis (see Table 1) and for the entire survey area. Size compositions are illustrated in histograms relating the population percentage by 1 cm length interval for each stratum and in population numbers for the total survey area. Catch per unit effort (CPUE), population, and biomass estimates and associated variances and confidence limits are listed for each species by stratum. All results except size composition are presented for sturgeon poacher (*Podothecus accipenserinus*), Bering poacher (*Ocella dodecaedron*), butterfly sculpin (*Hemilepidotus papilio*), eulachon (*Thaleichthys pacificus*), capelin (*Mallotus villosus*), Pacific herring (*Clupea pallasii*), and Arctic cod (*Boreogadus saida*) in Figures 50-56 and Tables 29-35.

Appendices to the report contain detailed results of the survey including population estimates by sex and size class, and rank of fish and invertebrate taxa by unweighted total CPUE (kg/ha). A more detailed explanation of results follows for the 10 fish species (or grouped species) that are commercially exploited on the eastern Bering Sea shelf.

Summary of Results for Commercially Exploited Groundfish Species

Walleye Pollock (*Theragra chalcogramma*)

Walleye pollock were captured at 89% of the standard survey stations (Fig. 10). Catch rates were lowest on the inner shelf compared to the middle and outer shelf. The highest densities were north of the Alaska Peninsula, around the Pribilof Islands, and along the northwest outer shelf (Fig. 10). The total biomass and abundance of walleye pollock for the entire survey area was 3.03 million t and 3.97 billion fish with an average weight per walleye pollock of 0.76 kg (Tables 10a and 10b) and average length of 44.7 cm (Fig. 11). The 2008 biomass estimate was lower than the 2007 estimate of 4.3 million t but equal to the 2006 estimate of 3.0 million t (Ianelli 2008 et al.). Besides general year-class variability, this lower estimate may in part be due to a shift of the population to the shelf edge or a change in the vertical distribution pattern of pollock caused by the colder than average water temperatures on the Bering Sea shelf during 2008 (Ianelli et al. 2008, Kotwicki et al. 2005). One-year-olds, represented by the modal length of 10-15 cm, had the highest abundance on the inner shelf relative to the outer shelf, where larger pollock dominated (Fig. 11). The mode for the population of 1-year-olds peaked at about 100 million in 2008 compared to a mode for 1-year-olds that peaked at a little over 400 million in 2007. Although we might expect to see more age-2 pollock (modal length of 15-25 cm) following the high number of 1-year-olds in 2007, the relatively low abundance of age-2 pollock was not surprising given that they are generally under-represented in survey trawl catches.

Pacific Cod (*Gadus macrocephalus*)

Like walleye pollock, Pacific cod were also broadly distributed across the shelf being observed in 91% of the trawls (Fig. 12). The highest catch rates of Pacific cod were observed in the northwestern strata of the middle and outer shelf, especially between St. Matthew Island and the Pribilof Islands (Tables 10a and 10b; Fig. 12). The 2006 year class (modal length of 20-40 cm) was dominant in the 2007 survey as 1-year-olds and again in 2008 as 2-year-olds, and they were widely distributed across the shelf (Fig. 13).

Yellowfin Sole (*Limanda aspera*)

Yellowfin sole catch rates were highest on the inner shelf and decreased to little or nothing on the outer shelf, except in the vicinity of St. Matthew Island and the Pribilof Islands (Tables 11a and 11b; Fig. 14). The biomass and population estimates for yellowfin sole changed very little from 2007: the biomass decreased slightly from 2.2 to 2.1 million t and the population size increased slightly from 8.5 to 8.9 billion. Yellowfin sole with a modal length of 10-25 cm were only found on the inner shelf and those with a modal length from 25-40 cm were found both on the inner and middle shelf (Fig. 15). Yellowfin sole undergo a spring migration from the shelf-slope break onto the inner shelf each year for spawning and feeding (Nichol 1998). The group of smaller yellowfin sole on the inner shelf probably represent the juveniles less than 6 years of age that overwinter in the nearshore (Nichol 1997).

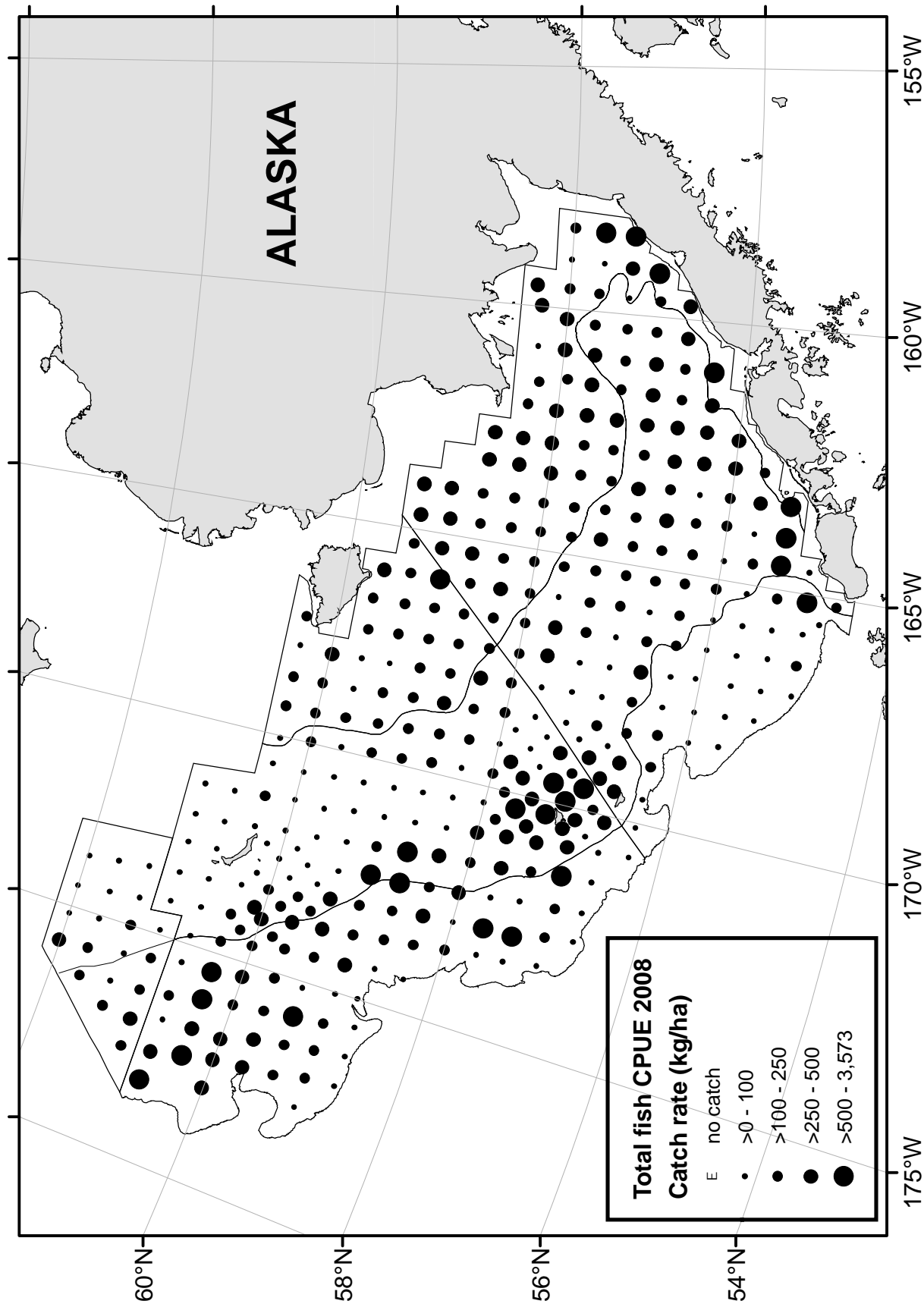


Figure 9. -- Distribution and relative abundance (kg/ha) of **total fish** caught during the 2008 eastern Bering Sea bottom trawl survey.

Table 7. -- Biomass estimates (t) for major fish species and groups taken during the 2008 eastern Bering Sea bottom trawl survey.

Taxon	Estimated total biomass (t) ^a and 95% confidence	Proportion of total animal biomass ^b	Estimated biomass by stratum (t)							
			10	20	30	40	50	60	82	90
Gadidae (cods)										
Walleye pollock	3,031,200 ± 23%	0.2123	38,859	12,199	593,578	619,004	104,262	1,466,191	60,655	136,451
Pacific cod	428,885 ± 13%	0.0300	41,713	39,061	59,310	143,585	14,680	104,776	10,573	15,187
Other cods	51,689 ± 173%	0.0036	49	5,770	1	4,142	0	120	41,570	37
Total cods	3,511,774 ± 20%	0.2459	80,621	57,031	652,888	766,731	118,942	1,571,087	112,798	151,676
Anoplopomatidae										
Sablefish	25 ± 196%	0.0000	0	0	25	0	0	0	0	0
Scorpaenidae (rockfish)										
Pacific ocean perch	292 ± 33%	0.0000	0	0	0	0	269	23	0	0
Other rockfish	681 ± 175%	0.0000	0	0	0	0	681	0	0	0
Total rockfish	973 ± 162%	0.0001	0	0	0	0	950	23	0	0
Pleuronectidae (flatfishes)										
Yellowfin sole	2,099,678 ± 25%	0.1470	793,007	490,021	647,371	169,122	0	0	125	33
Rock sole	2,033,211 ± 29%	0.1424	794,199	400,115	383,312	433,855	1,337	20,117	48	228
<i>Hippoglossoides</i> spp.	558,037 ± 28%	0.0391	7,984	535	166,178	104,208	51,733	214,829	5,094	7,476
Alaska plaice	509,382 ± 18%	0.0357	87,658	95,779	153,102	167,996	0	4,090	613	143
Arrowtooth flounder	530,127 ± 17%	0.0371	1,487	0	147,386	29,586	171,328	180,164	0	176
Kamchatka flounder	58,215 ± 18%	0.0041	3	0	4,224	7,412	4,233	38,095	0	4,248
Greenland turbot	13,514 ± 43%	0.0009	0	0	10	1,003	0	10,520	28	1,955
Pacific halibut	140,254 ± 11%	0.0098	38,543	25,336	34,610	16,151	5,785	19,606	55	169
Other flatfish	613,989 ± 16%	0.0430	159,468	100,571	163,214	168,086	11,967	9,898	643	143
Total flatfish	6,556,408 ± 30%	0.4592	1,882,350	1,112,358	1,699,406	1,097,418	246,381	497,318	6,606	14,570
Clupeidae (Pacific herring)										
Cottidae (sculpins)	81,887 ± 127%	0.0057	65,074	13,663	923	1,666	0	9	551	0
Zoarcidae (eelpouts)	209,247 ± 19%	0.0147	34,574	22,352	35,659	67,485	3,093	43,200	299	2,586
Osmeridae (smelts)	24,993 ± 31%	0.0018	0	21	982	3,601	73	14,536	772	5,009
Agonidae (poachers)	2,123 ± 18%	0.0001	1,041	418	225	209	205	2	23	0
Cyclopteridae (snailfishes)	16,450 ± 22%	0.0012	2,199	3,075	4,894	6,002	215	51	8	7
Alaska skate	2,250 ± 41%	0.0002	2	19	71	1,122	10	307	636	84
Other skates	362,127 ± 11%	0.0254	51,042	42,692	63,188	96,195	11,355	82,262	6,339	9,055
Other fish	19,793 ± 47%	0.0014	420	1	4,165	517	5,861	8,552	0	277
Other fish	7,607 ± 47%	0.0005	1,208	951	1,621	700	1,560	1,564	1	1
Total fish	10,795,659 ± 12%	0.7560	2,118,532	1,252,580	2,464,048	2,041,647	388,644	2,218,911	128,034	183,264

^aDifferences in sums of estimates and totals are due to rounding.

^bProportion of total estimated biomass, fish and invertebrates combined, for the total survey area = 15,425,051 t.

Table 8. -- Biomass estimates (t) for major invertebrate species and groups taken during the 2008 eastern Bering Sea bottom trawl survey.

Taxon	Estimated total biomass (t) ^a and 95% confidence	Proportion of total animal biomass ^b	Estimated biomass by stratum (t)							
			10	20	30	40	50	60	82	90
Crustacea										
Crabs	741,337 ± 13%	0.0519	47,113	31,493	210,088	286,332	35,542	107,429	14,084	9,257
Shrimps	5,226 ± 103%	0.0004	32	37	45	656	251	3,370	44	790
Other crustaceans	2,533 ± 103%	0.0002	411	0	1,858	123	34	107	0	0
Total crustaceans	749,096 ± 13%	0.0525	47,556	31,530	211,991	287,110	35,827	110,907	14,129	10,047
Mollusca										
Gastropoda (snails)	309,916 ± 18%	0.0217	8,253	5,970	104,104	75,790	5,841	90,061	11,937	7,960
Pelecypoda (bivalves)	7,527 ± 43%	0.0005	854	552	4,602	904	362	139	48	66
Squids	8 ± 102%	0.0000	0	0	0	0	1	7	0	0
Octopuses	1,179 ± 84%	0.0001	0	0	85	30	3	937	36	89
Other mollusks	9,452 ± 44%	0.0007	256	273	3,294	3,880	23	1,300	257	168
Total mollusks	328,082 ± 17%	0.0230	9,363	6,795	112,085	80,604	6,230	92,444	12,277	8,284
Echinodermata										
Asteroida (starfish)	1,294,856 ± 12%	0.0907	302,348	142,391	184,880	208,232	495	102,012	5,176	17,939
Ophiuroidea (brittle stars)	276,150 ± 31%	0.0193	7,340	2,236	69,861	49,193	198	134,011	12,059	1,250
Echinoidea (sea urchin)	48,185 ± 97%	0.0034	228	3	22,974	16,359	7,195	1,395	8	24
Holothuroidea (sea cucumbers)	7,049 ± 65%	0.0005	691	0	4,103	2,250	3	0	2	0
Total echinoderms	1,626,240 ± 12%	0.1139	310,607	144,630	281,819	276,034	7,890	237,418	17,246	19,213
Asciacea										
Porifera (sponges)	465,420 ± 31%	0.0326	62,933	40,061	144,786	217,608	11	8	12	1
Coelenterata	181,014 ± 99%	0.0127	717	2	177,792	1,158	232	1,112	1	0
Other invertebrates	119,784 ± 21%	0.0084	11,365	1,001	49,852	30,192	12,740	11,160	3,339	135
	13,783 ± 95%	0.0010	564	19	2,059	630	39	10,418	6	49
Total invertebrates	3,483,419 ± 10%	0.2440	443,106	224,039	980,383	893,336	62,968	463,466	47,009	37,728

^aDifferences in sums of estimates and totals are due to rounding.

^bProportion of total estimated biomass, fish and invertebrates combined, for the total survey area = 15,425,051 t.

Northern and Southern Rock Sole (*Lepidopsetta* spp.)

The distribution and abundance of rock soles was very similar to that of yellowfin sole (Tables 12a and 12b; Fig. 16). Estimated biomass remained unchanged from 2007 (2.0 million t) and estimated population numbers decreased slightly from 11.0 billion to 10.5 billion (Tables 12a and 12b). Rock sole sizes increased moving from the inner shelf towards the outer shelf (Fig. 17). Spawning and feeding migrations for rock soles are poorly understood, but in general they migrate from shallower summer feeding grounds to deeper winter spawning grounds (Fadeev 1965, Shubnikov and Lisovenko 1964).

Flathead Sole and Bering Flounder (*Hippoglossoides* spp.)

The category “*Hippoglossoides* spp.” represents two species: the flathead sole (*H. elassodon*) and the Bering flounder (*H. robustus*). Although age structures were taken for each of the two species, they were combined in the presentation of results because they are managed as a two-species complex by the NPFMC (Stockhausen et al. 2008) and it facilitates comparisons with previous surveys. Bering flounder are typically more arctic in their distribution compared to flathead sole which is generally distributed in the southeastern half of the shelf. The combined “flathead sole” were distributed on the middle and outer eastern Bering Sea shelf. The highest CPUEs were in the northwest outer shelf, near the Pribilof Islands, and in the southern middle shelf region (Tables 13a and 13b; Fig. 18). Estimated biomass (0.56 million t) and population number (1.9 billion) remained unchanged from 2007 (Tables 12a and 12b). A similar size range of flathead sole (10-50 cm) was observed across the entire shelf (Fig. 19).

Alaska Plaice (*Pleuronectes quadrituberculatus*)

Alaska plaice was most abundant on the inner and middle shelf in waters < 100 m with the heaviest concentrations bordering the 50 m contour (Fig. 20). From 2007 to 2008, the estimated biomass increased from 0.42 million t to 0.51 million t, and the population increased from 0.81 billion to 0.94 billion (Tables 14a and 14b). The larger sizes of Alaska plaice occurred at bottom depths > 50m while smaller juveniles (< 25 cm) at bottom depths < 50 m (Fig. 21).

Greenland Turbot (*Reinhardtius hippoglossoides*)

Greenland turbot is a flatfish species that typically inhabits the upper continental slope, although juveniles may spend several years on the continental shelf (Alton et al. 1988). Greenland turbot were captured in 79 of 355 tows, and most of these tows were in the northwest part of the middle and outer shelf (Fig. 22). Greenland turbot were absent in the inner shelf and in relatively low numbers with a small mean size in the middle shelf strata (Fig. 23). Juveniles are believed to spend the first several years of their life on the shelf before moving to deeper water (Alton et al. 1988). Biomass estimates decreased for the fifth consecutive year from 31.7 thousand t in 2003 to 13.5 thousand t in 2008 (Table 15a); however, the estimated population number of 15.3 million was slightly greater than the 6 year mean of 15.2 million (Tables 15a and 15b).

Arrowtooth Flounder (*Atheresthes stomias*)

Arrowtooth flounder were observed all along the outer shelf and on the middle shelf at bottom depths > 50 m (Fig. 24). Catch rates were generally higher at the deeper more southern stations and very few or no arrowtooth flounder were found in strata along the inner shelf and northern middle shelf (Tables 16a and 16b; Fig. 24). Estimates of both biomass and population size increased in 2008 compared to 2007; biomass increased from 0.48 to 0.53 million t and population from 1.0 to 1.2 billion (Tables 16a and 16b).

Kamchatka Flounder (*Atheresthes evermanni*)

Kamchatka flounder were mostly observed around the Pribilof Islands and along the 100 m contour and outer shelf with the highest catch rates and largest mean size occurring in the northwest (Figs. 26 and 27). Compared to 2007, the biomass decreased from 65 to 58 thousand t and the population decreased from 146 to 120 million fish (Tables 17a and 17b).

Pacific Halibut (*Hippoglossus stenolepis*)

Pacific halibut were widely distributed across the shelf and captured at 81% of the stations, but they were generally absent in trawl catches at or north of 60°N (Fig. 28). Juvenile Pacific halibut with modal lengths < 40 cm were prevalent on the southern inner and middle shelves and the larger adults (> 90 cm) were captured on the outer shelf (Fig. 29). The estimated biomass decreased slightly from 146 thousand t in 2007 to 140 thousand t in 2008 and the population decreased from 120 million to 108 million in the same time period.

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Walleye pollock

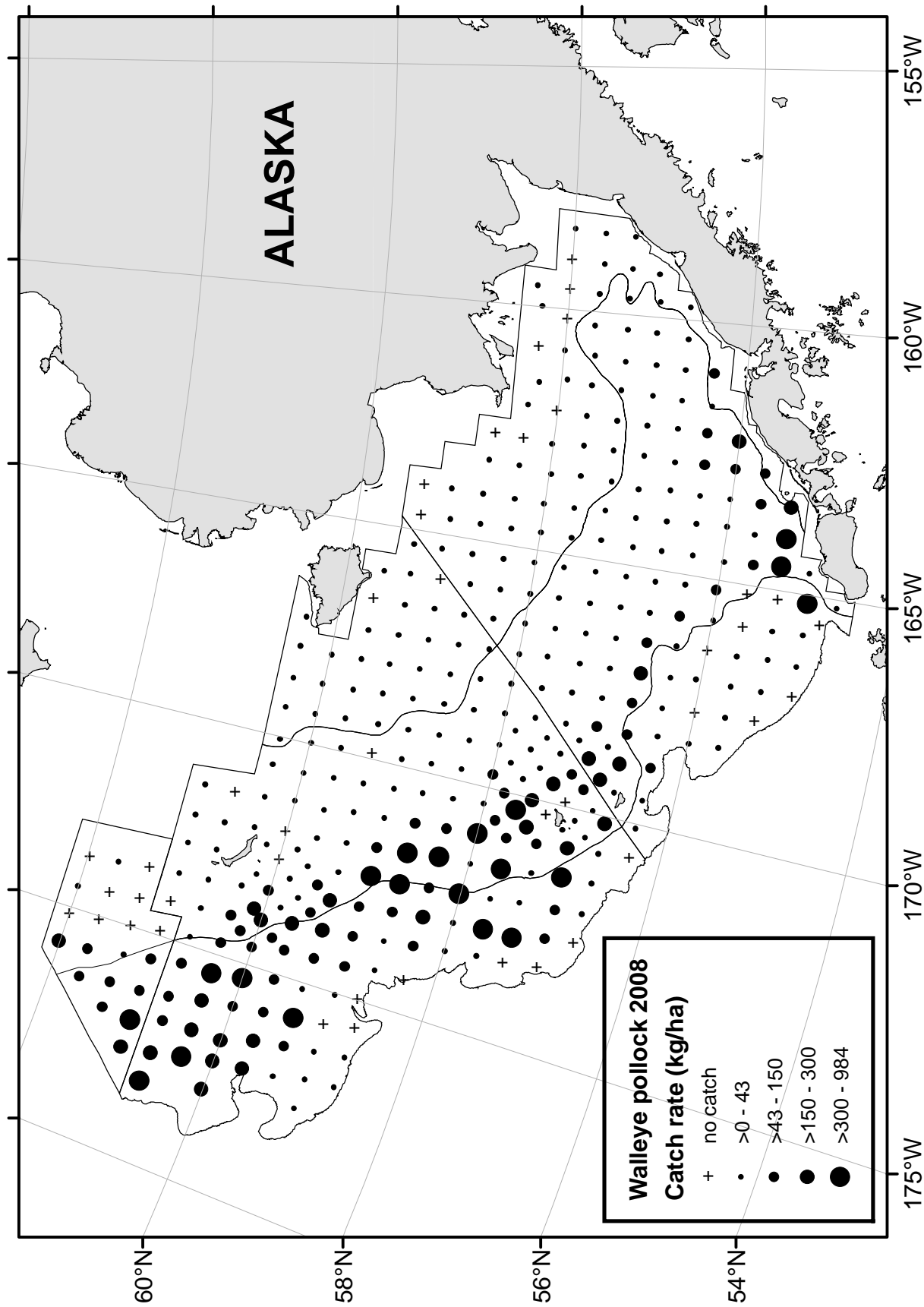


Figure 10. -- Distribution and relative abundance (kg/ha) of walleye pollock (*Theragra chalcogramma*) for the 2008 eastern Bering Sea bottom trawl survey.

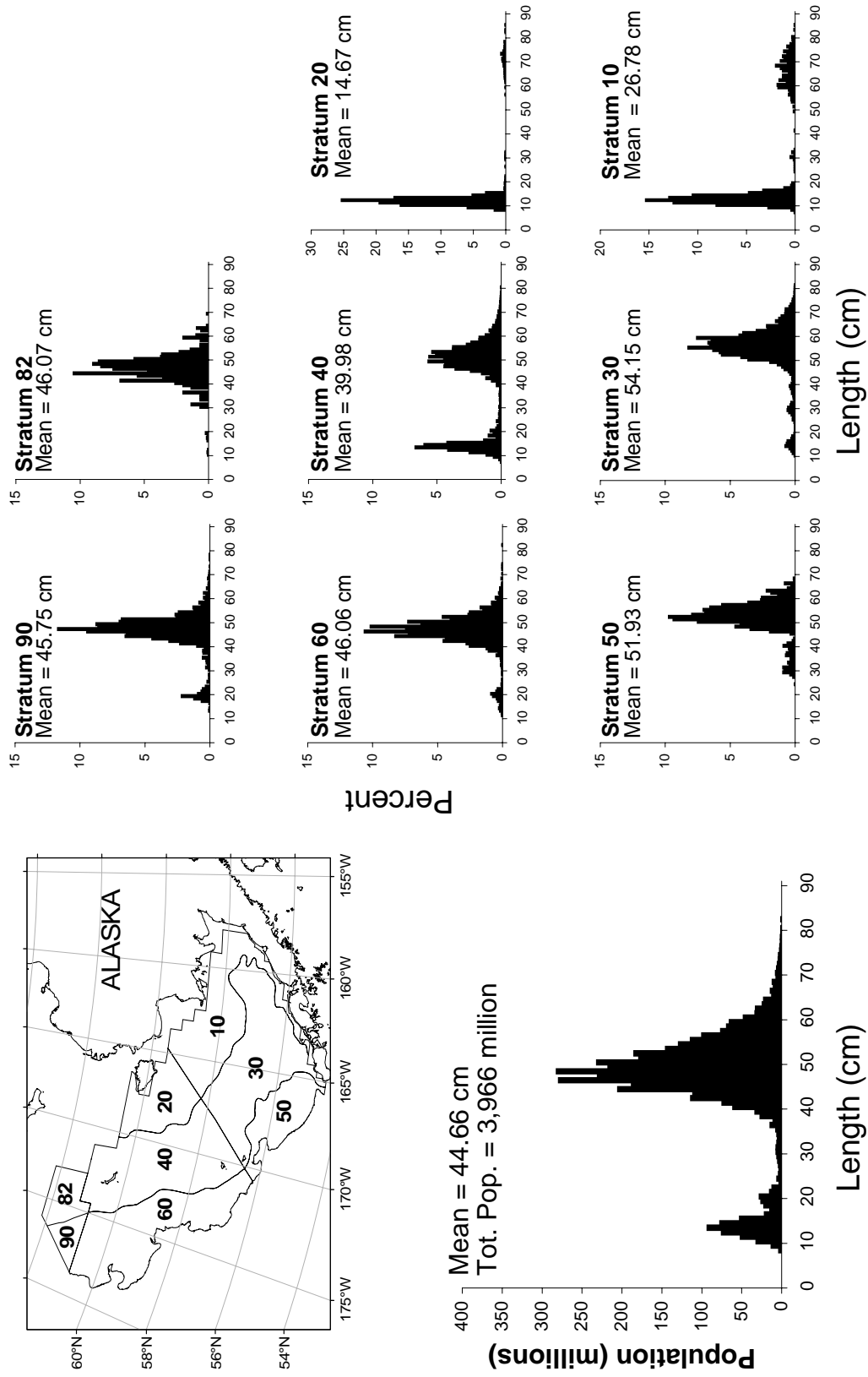


Figure 11. -- Estimated relative size distributions (sexes combined) of **walleye pollock** (*Theragra chalcogramma*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 9a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **walleye pollock** (*Theragra chalcogramma*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	4.99	2.10E+00	38,859	1.63E+04	5,846	71,872	57	48	48	47
20	2.97	7.05E-01	12,199	2.89E+03	6,289	18,110	31	29	29	29
Subtotal	4.29	1.40E+00	51,059	1.66E+04	17,533	84,585	88	77	77	76
31	53.76	1.81E+01	508,172	1.71E+05	166,033	850,311	69	68	68	66
32	97.34	3.80E+01	85,406	3.34E+04	6,468	164,345	8	8	8	8
41	47.98	1.91E+01	300,834	1.20E+05	58,886	542,781	44	41	41	40
42	86.97	2.13E+01	208,834	5.10E+04	104,599	313,069	31	29	29	29
43	51.80	1.72E+01	109,337	3.62E+04	33,762	184,911	22	20	20	19
82	29.37	2.30E+01	60,655	4.75E+04	0	165,166	12	4	4	4
Subtotal	54.93	9.73E+00	1,273,237	2.26E+05	826,600	1,719,874	186	170	170	166
50	26.88	1.92E+01	104,262	7.43E+04	0	257,616	26	19	19	19
61	156.89	2.81E+01	1,382,769	2.47E+05	882,894	1,882,644	60	52	52	52
62	129.77	1.95E+01	83,422	1.25E+04	51,175	115,669	7	7	7	7
90	117.96	3.81E+01	136,451	4.41E+04	28,572	244,330	8	8	8	8
Subtotal	117.78	1.81E+01	1,706,904	2.62E+05	1,182,314	2,231,494	101	86	86	86
Total	61.16	6.99E+00	3,031,200	3.46E+05	2,345,429	3,716,971	375	666	666	328

*Differences in sums of estimates and totals are due to rounding.

Table 9b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **walleye pollock** (*Theragra chalcogramma*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	9.11	1.99E+00	70,971,670	1.55E+07	39,660,817	102,282,522	57	48	48	47
20	22.16	8.25E+00	90,918,941	3.39E+07	21,668,251	160,169,632	31	29	29	29
Subtotal	13.62	3.13E+00	161,890,611	3.72E+07	86,630,229	237,150,992	88	77	77	76
31	41.01	1.32E+01	387,649,905	1.25E+08	137,776,785	637,523,025	69	68	68	66
32	91.64	3.63E+01	80,404,342	3.19E+07	5,047,352	155,761,331	8	8	8	8
41	79.32	3.05E+01	497,363,470	1.91E+08	110,800,979	883,925,962	44	41	41	40
42	103.64	2.41E+01	248,851,366	5.78E+07	130,876,084	366,826,648	31	29	29	29
43	85.85	3.33E+01	181,207,328	7.03E+07	34,513,036	327,901,621	22	20	20	19
82	40.24	3.23E+01	83,108,125	6.66E+07	0	229,778,937	12	4	4	4
Subtotal	63.79	1.11E+01	1,478,584,536	2.57E+08	970,169,143	1,986,999,928	186	170	170	166
50	25.23	1.68E+01	97,871,142	6.53E+07	0	232,742,367	26	19	19	19
61	216.35	3.76E+01	1,906,781,098	3.31E+08	1,237,899,426	2,575,662,771	60	52	52	52
62	186.17	2.18E+01	119,678,741	1.40E+07	83,591,707	155,765,775	7	7	7	7
90	174.17	6.38E+01	201,476,467	7.38E+07	20,984,987	381,967,947	8	8	8	8
Subtotal	160.49	2.38E+01	2,325,807,448	3.46E+08	1,634,588,799	3,017,026,097	101	86	86	86
Total	80.03	8.72E+00	3,966,282,594	4.32E+08	3,110,596,796	4,821,968,393	375	666	666	328

*Differences in sums of estimates and totals are due to rounding.

Pacific cod

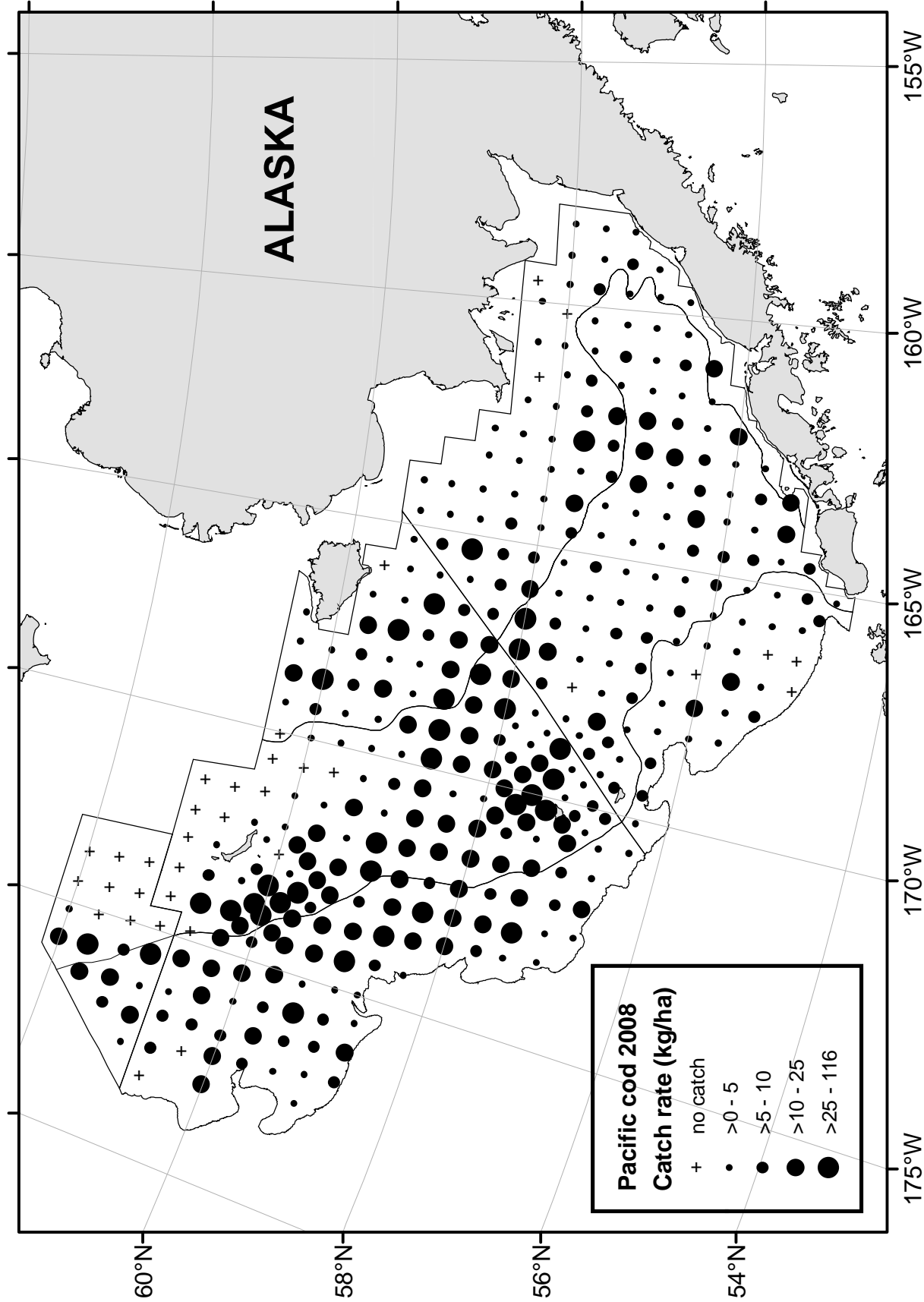


Figure 12. -- Distribution and relative abundance (kg/ha) of Pacific cod (*Gadus macrocephalus*) for the 2008 eastern Bering Sea bottom trawl survey.

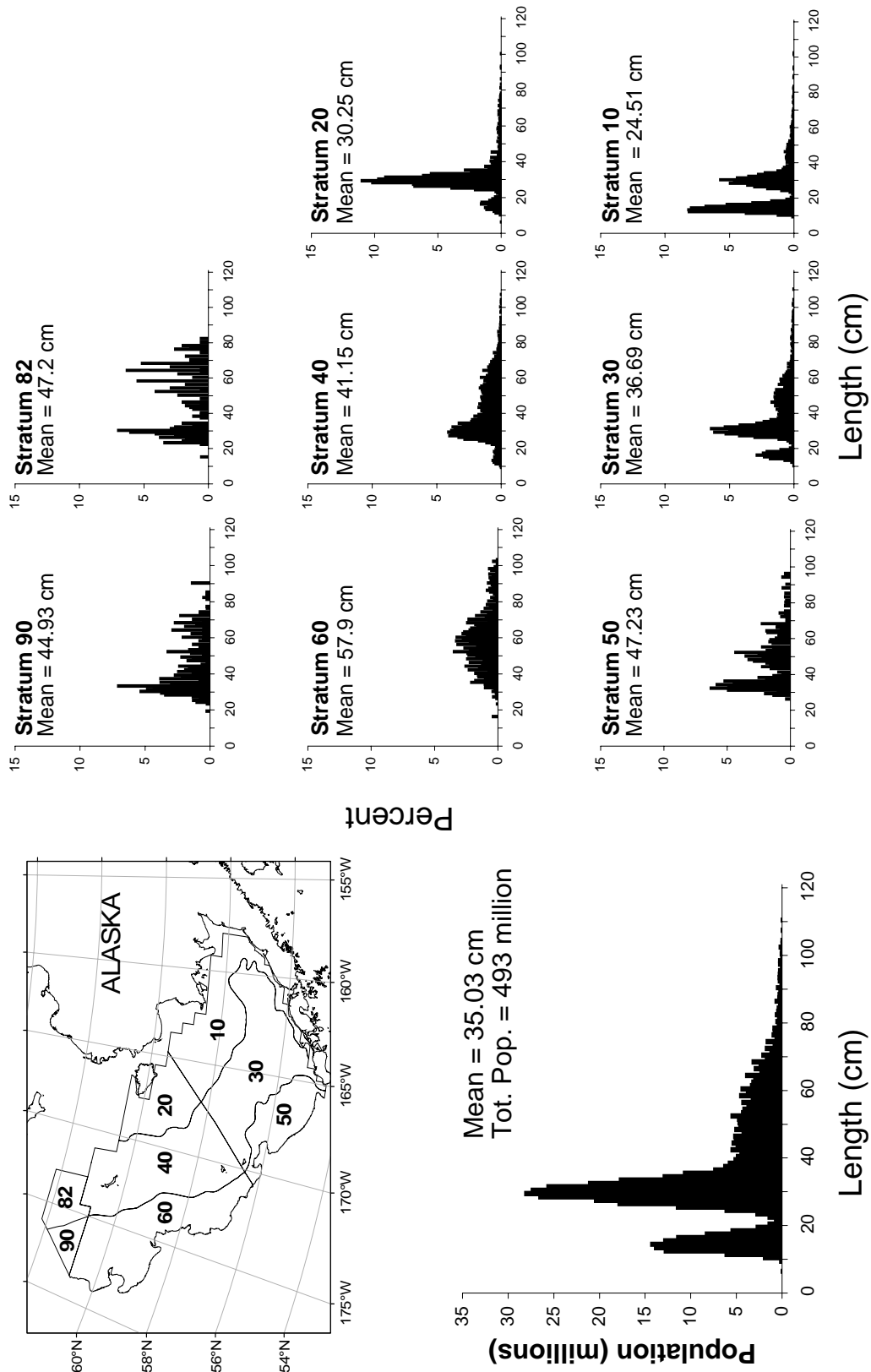


Figure 13. -- Estimated relative size distributions (sexes combined) of **Pacific cod** (*Gadus macrocephalus*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 10a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Pacific cod** (*Gadus macrocephalus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	5.36	1.29E+00	41,713	1.00E+04	21,410	62,016	57	54	54	54
20	9.52	2.44E+00	39,061	1.00E+04	18,614	59,508	31	29	29	29
Subtotal	6.79	1.19E+00	80,774	1.42E+04	52,406	109,141	88	83	83	83
31	5.73	7.62E-01	54,184	7.21E+03	39,773	68,594	69	68	68	67
32	5.84	1.25E+00	5,126	1.09E+03	2,451	7,801	8	8	8	8
41	10.82	2.04E+00	67,854	1.28E+04	41,960	93,749	44	32	32	32
42	15.63	3.96E+00	37,525	9.50E+03	18,090	56,961	31	31	31	30
43	18.10	3.75E+00	38,206	7.91E+03	21,758	54,654	22	21	21	20
82	5.12	3.57E+00	10,573	7.37E+03	0	26,799	12	3	3	3
Subtotal	9.21	8.89E-01	213,468	2.06E+04	172,674	254,262	186	163	163	160
50	3.78	8.64E-01	14,680	3.35E+03	7,773	21,586	26	22	22	22
61	10.74	1.32E+00	94,692	1.16E+04	71,201	118,183	60	58	58	58
62	15.69	2.06E+00	10,084	1.33E+03	6,841	13,328	7	7	7	7
90	13.13	3.35E+00	15,187	3.87E+03	6,027	24,348	8	8	8	8
Subtotal	9.29	8.81E-01	134,643	1.28E+04	109,101	160,186	101	95	95	95
Total	8.65	5.67E-01	428,885	2.81E+04	373,277	484,493	375	682	682	338

*Differences in sums of estimates and totals are due to rounding.

Table 10b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Pacific cod** (*Gadus macrocephalus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers ^a	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	17.85	3.47E+00	138,979,687	2.70E+07	84,365,919	193,593,455	57	54	54	54
20	25.39	9.03E+00	104,162,921	3.70E+07	28,550,745	179,775,097	31	29	29	29
Subtotal	20.45	3.86E+00	243,142,608	4.58E+07	151,461,439	334,823,778	88	83	83	83
31	6.76	1.01E+00	63,915,386	9.58E+06	44,746,887	83,083,885	69	68	68	67
32	3.54	9.61E-01	3,106,271	8.43E+05	1,043,281	5,169,261	8	8	8	8
41	8.02	1.43E+00	50,313,361	8.97E+06	32,194,220	68,432,501	44	32	32	32
42	14.95	3.94E+00	35,903,019	9.46E+06	16,557,311	55,248,726	31	31	31	30
43	16.89	3.64E+00	35,642,721	7.69E+06	19,647,532	51,637,911	22	21	21	20
82	2.95	2.14E+00	6,102,263	4.41E+06	0	15,816,745	12	3	3	3
Subtotal	8.41	7.97E-01	194,983,020	1.85E+07	158,416,984	231,549,056	186	163	163	160
50	2.35	6.09E-01	9,118,726	2.36E+06	4,253,268	13,984,185	26	22	22	22
61	3.47	4.05E-01	30,621,597	3.57E+06	23,402,245	37,840,950	60	58	58	58
62	7.67	9.84E-01	4,933,287	6.32E+05	3,386,031	6,480,543	7	7	7	7
90	9.20	4.15E+00	10,641,923	4.80E+06	0	21,997,021	8	8	8	8
Subtotal	3.82	4.46E-01	55,315,534	6.46E+06	42,386,308	68,244,760	101	95	95	95
Total	9.96	1.01E+00	493,441,162	4.98E+07	394,754,375	592,127,949	375	682	682	338

^aDifferences in sums of estimates and totals are due to rounding.

Yellowfin sole

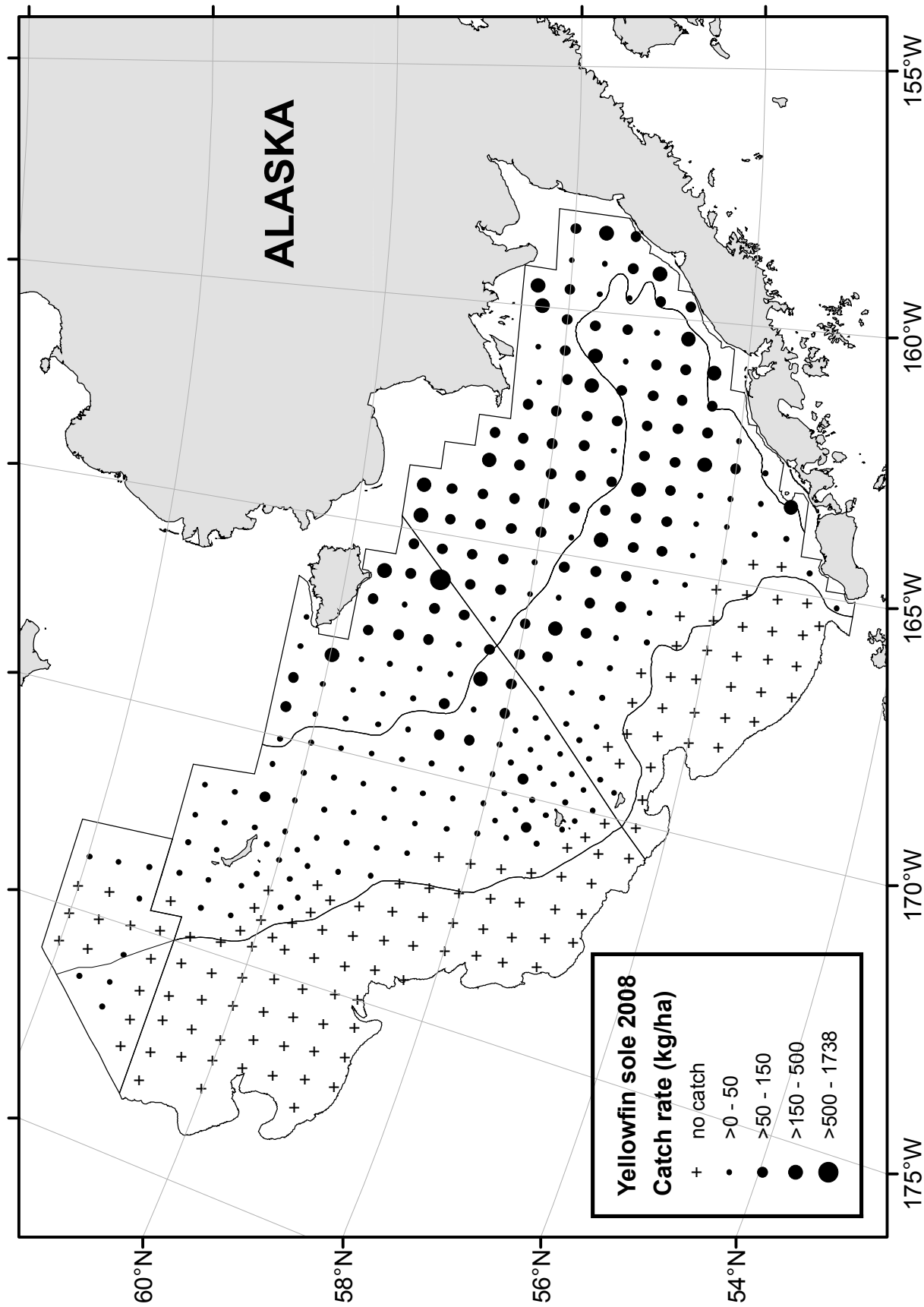


Figure 14. -- Distribution and relative abundance (kg/ha) of yellowfin sole (*Limanda aspera*) for the 2008 eastern Bering Sea bottom trawl survey.

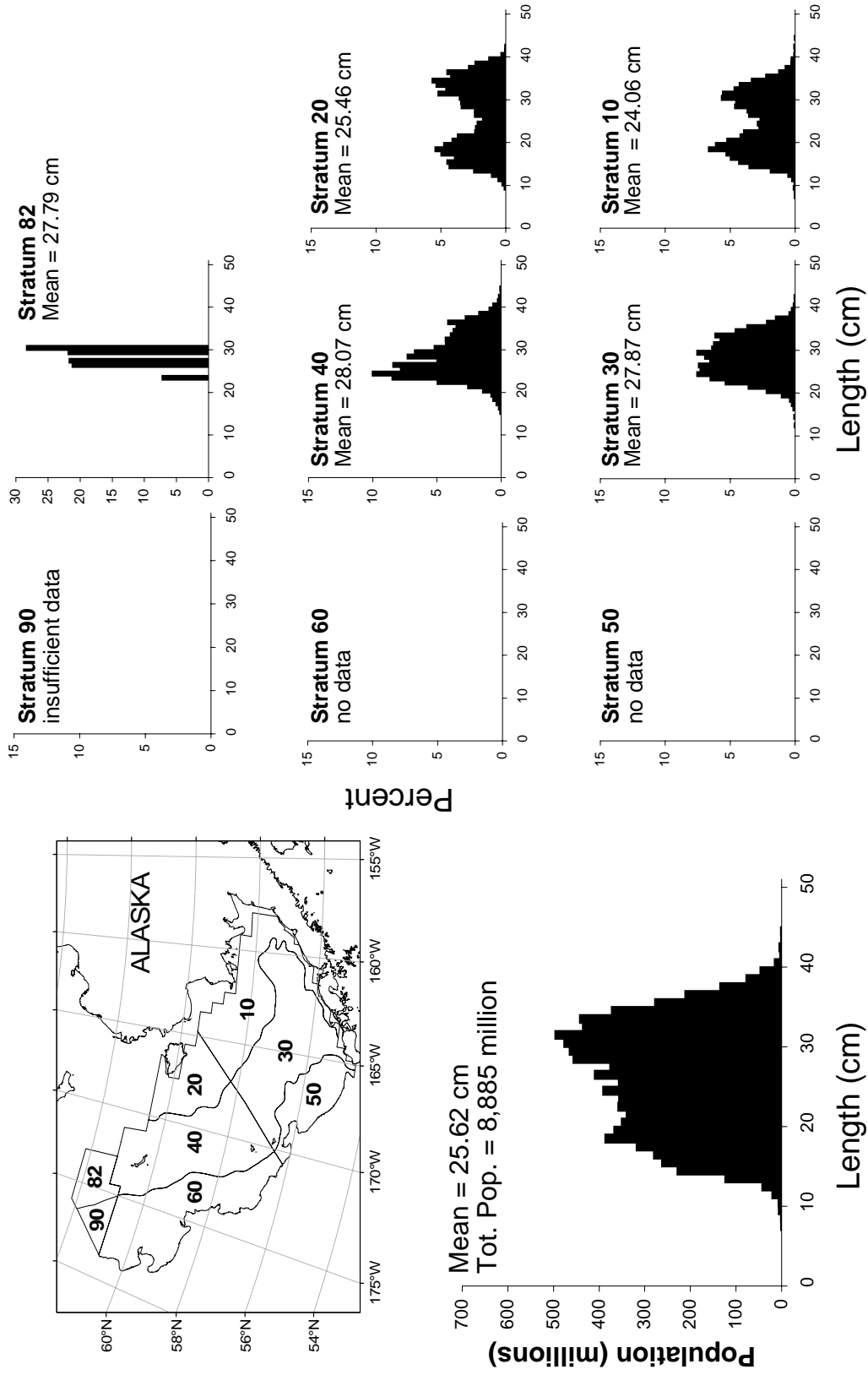


Figure 15. -- Estimated relative size distributions (sexes combined) of **yellowfin sole** (*Limanda aspera*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 11a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **yellowfin sole** (*Limanda aspera*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch numbers	Hauls with length measurements
					Lower	Upper			
10	101.84	8.52E+00	793,007	6.64E+04	658,874	927,140	57	57	56
20	119.44	5.57E+01	490,021	2.28E+05	22,914	957,128	31	31	31
Subtotal	107.91	2.00E+01	1,283,028	2.38E+05	797,315	1,768,740	88	88	87
31	68.20	8.42E+00	644,677	7.96E+04	485,551	803,802	69	60	58
32	3.07	1.02E+00	2,695	8.96E+02	575	4,814	8	6	6
41	19.39	7.39E+00	121,589	4.63E+04	27,961	215,217	44	38	38
42	17.89	5.14E+00	42,958	1.23E+04	17,729	68,188	31	28	28
43	2.17	1.01E+00	4,574	2.13E+03	146	9,003	22	15	15
82	0.06	3.02E-02	125	6.23E+01	0	264	12	4	4
Subtotal	35.23	4.01E+00	816,618	9.29E+04	630,779	1,002,457	186	151	149
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0
90	0.03	1.36E-02	33	1.58E+01	0	70	8	4	2
Subtotal	0.00	1.09E-03	33	1.58E+01	1	64	101	4	2
Total	42.37	5.15E+00	2,099,678	2.55E+05	1,583,583	2,615,774	375	486	238

*Differences in sums of estimates and totals are due to rounding.

Table 11b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **yellowfin sole** (*Limanda aspera*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	520.12	4.51E+01	4,050,234,202	3.51E+08	3,340,989,073	4,759,479,330	57	57	57	56
20	470.06	1.22E+02	1,928,526,870	5.02E+08	902,115,548	2,954,938,191	31	31	31	31
Subtotal	502.85	5.15E+01	5,978,761,071	6.12E+08	4,728,173,907	7,229,348,236	88	88	88	87
31	247.97	3.56E+01	2,343,931,815	3.37E+08	1,670,147,320	3,017,716,309	69	60	60	58
32	5.77	2.29E+00	5,059,832	2.01E+06	307,723	9,811,940	8	6	6	6
41	66.55	2.61E+01	417,282,384	1.64E+08	86,351,413	748,213,356	44	38	38	38
42	50.49	1.72E+01	121,240,988	4.13E+07	36,699,525	205,782,451	31	28	28	28
43	8.49	4.02E+00	17,920,084	8.48E+06	272,008	35,568,160	22	15	15	15
82	0.24	1.26E-01	485,471	2.60E+05	0	1,065,034	12	4	4	4
Subtotal	125.38	1.63E+01	2,905,920,574	3.77E+08	2,152,012,555	3,659,828,593	186	151	151	149
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.10	3.65E-02	111,748	4.22E+04	11,851	211,645	8	4	4	2
Subtotal	0.01	2.91E-03	111,748	4.22E+04	27,269	196,227	101	4	4	2
Total	179.27	1.45E+01	8,884,793,393	7.19E+08	7,431,403,648	10,338,000,000	375	486	486	238

*Differences in sums of estimates and totals are due to rounding.

Rock sole

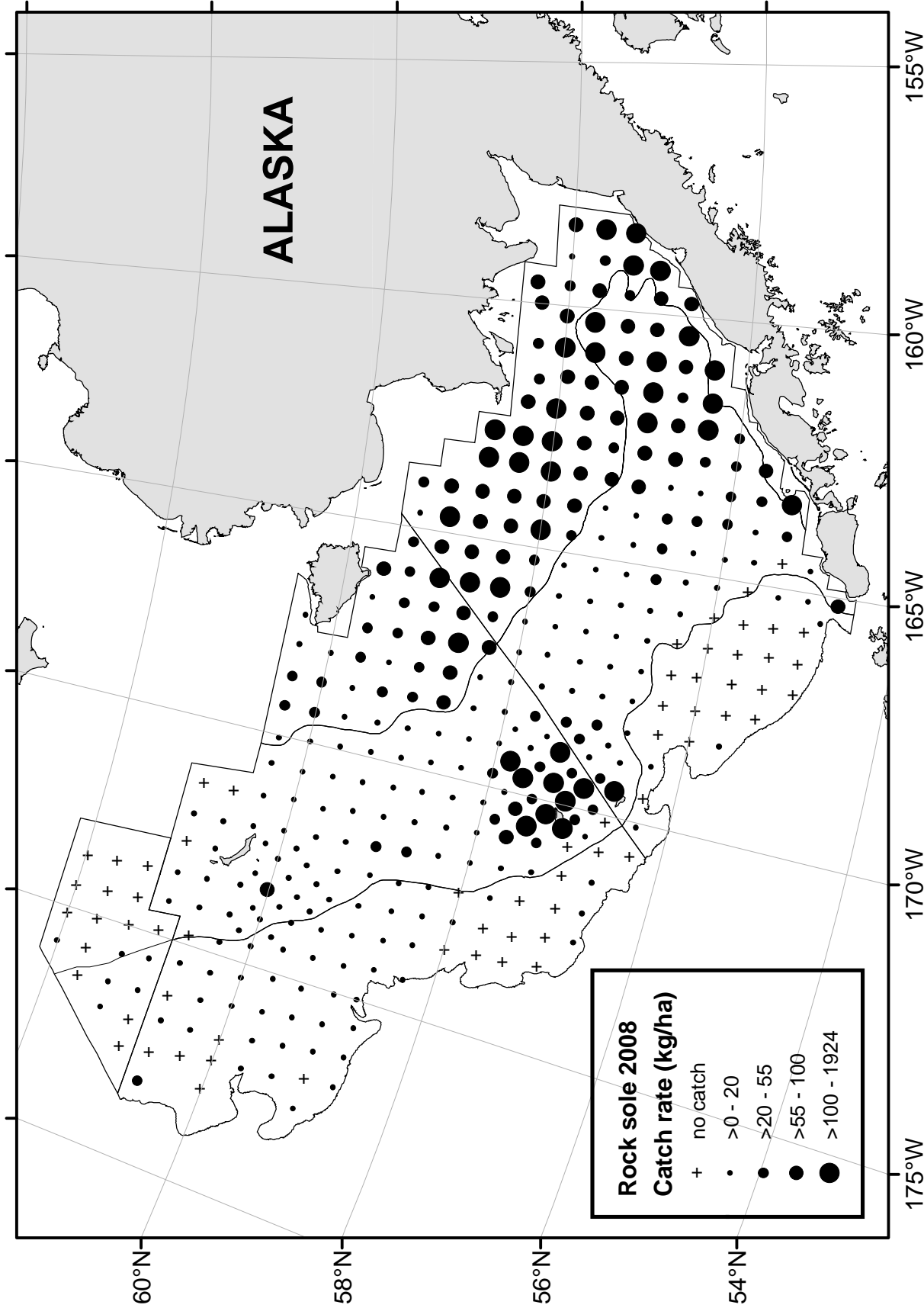


Figure 16. -- Distribution and relative abundance (kg/ha) of northern and southern rock sole (*Lepidopsetta* spp.) for the 2008 eastern Bering Sea bottom trawl survey.

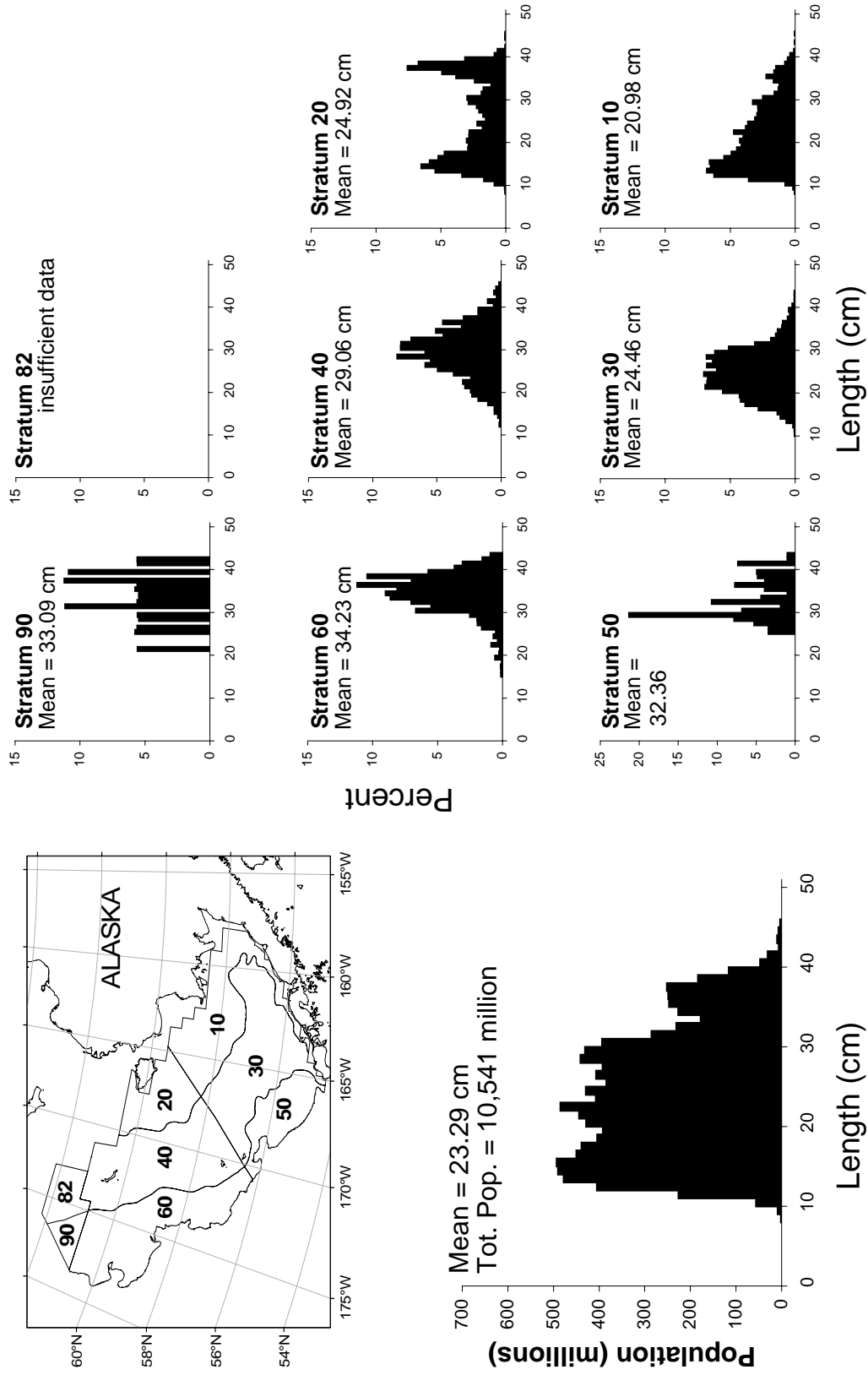


Figure 17. -- Estimated relative size distributions (sexes combined) of **northern and southern rock sole** (*Lepidopsetta* spp.) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 12a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **northern and southern rock sole** (*Lepidopsetta* spp.) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	101.99	9.91E+00	794,199	7.72E+04	638,265	950,133	57	57	57	56
20	97.52	5.72E+01	400,115	2.34E+05	0	879,638	31	31	31	30
Subtotal	100.45	2.08E+01	1,194,315	2.47E+05	690,240	1,698,389	88	88	88	86
31	36.78	5.38E+00	347,683	5.08E+04	246,038	449,327	69	65	65	62
32	40.61	2.31E+01	35,629	2.02E+04	0	83,486	8	8	8	8
41	5.11	1.34E+00	32,034	8.38E+03	15,093	48,975	44	40	40	40
42	160.86	6.76E+01	386,237	1.62E+05	54,929	717,545	31	29	29	29
43	7.38	2.75E+00	15,584	5.81E+03	3,498	27,670	22	22	22	22
82	0.02	2.32E-02	48	4.80E+01	0	154	12	1	1	1
Subtotal	35.26	7.40E+00	817,215	1.72E+05	466,963	1,167,467	186	165	165	162
50	0.34	1.91E-01	1,337	7.42E+02	0	2,864	26	7	7	7
61	1.87	5.76E-01	16,507	5.08E+03	6,242	26,772	60	40	40	40
62	5.61	2.91E+00	3,609	1.87E+03	0	8,181	7	7	7	7
90	0.20	6.46E-02	228	7.47E+01	51	405	8	5	5	5
Subtotal	1.50	3.77E-01	21,681	5.46E+03	10,755	32,607	101	59	59	59
Total	41.03	6.07E+00	2,033,211	3.01E+05	1,431,923	2,634,499	375	312	312	307

*Differences in sums of estimates and totals are due to rounding.

Table 12b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **northern** and **southern rock sole** (*Lepidopsetta* spp.) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	717.15	6.91E+01	5,584,548,718	5.38E+08	4,497,065,228	6,672,032,208	57	57	57	56
20	378.08	9.95E+01	1,551,168,038	4.08E+08	716,331,181	2,386,004,895	31	31	31	30
Subtotal	600.15	5.68E+01	7,135,716,756	6.75E+08	5,756,501,679	8,514,931,832	88	88	88	86
31	203.97	3.05E+01	1,928,064,484	2.89E+08	1,350,744,321	2,505,384,647	69	65	65	62
32	141.57	6.03E+01	124,211,921	5.29E+07	0	249,307,437	8	8	8	8
41	17.31	3.98E+00	108,547,858	2.49E+07	58,158,299	158,937,417	44	40	40	40
42	484.18	1.77E+02	1,162,570,775	4.25E+08	294,574,409	2,030,567,142	31	29	29	29
43	19.41	7.57E+00	40,978,148	1.60E+07	7,727,539	74,228,756	22	22	22	22
82	0.03	3.41E-02	70,374	7.04E+04	0	225,268	12	1	1	1
Subtotal	145.16	2.23E+01	3,364,443,560	5.17E+08	2,307,946,603	4,420,940,517	186	165	165	162
50	0.76	4.80E-01	2,954,852	1.86E+06	0	6,787,598	26	7	7	7
61	3.49	9.84E-01	30,722,754	8.67E+06	13,190,611	48,254,898	60	40	40	40
62	10.16	4.52E+00	6,528,538	2.90E+06	0	13,635,688	7	7	7	7
90	0.44	1.50E-01	505,350	1.74E+05	94,310	916,391	8	5	5	5
Subtotal	2.81	6.44E-01	40,711,495	9.34E+06	22,037,131	59,385,859	101	59	59	59
Total	212.69	1.72E+01	10,541,000,000	8.51E+08	8,839,143,408	12,243,000,000	375	312	312	307

*Differences in sums of estimates and totals are due to rounding.

Flathead sole

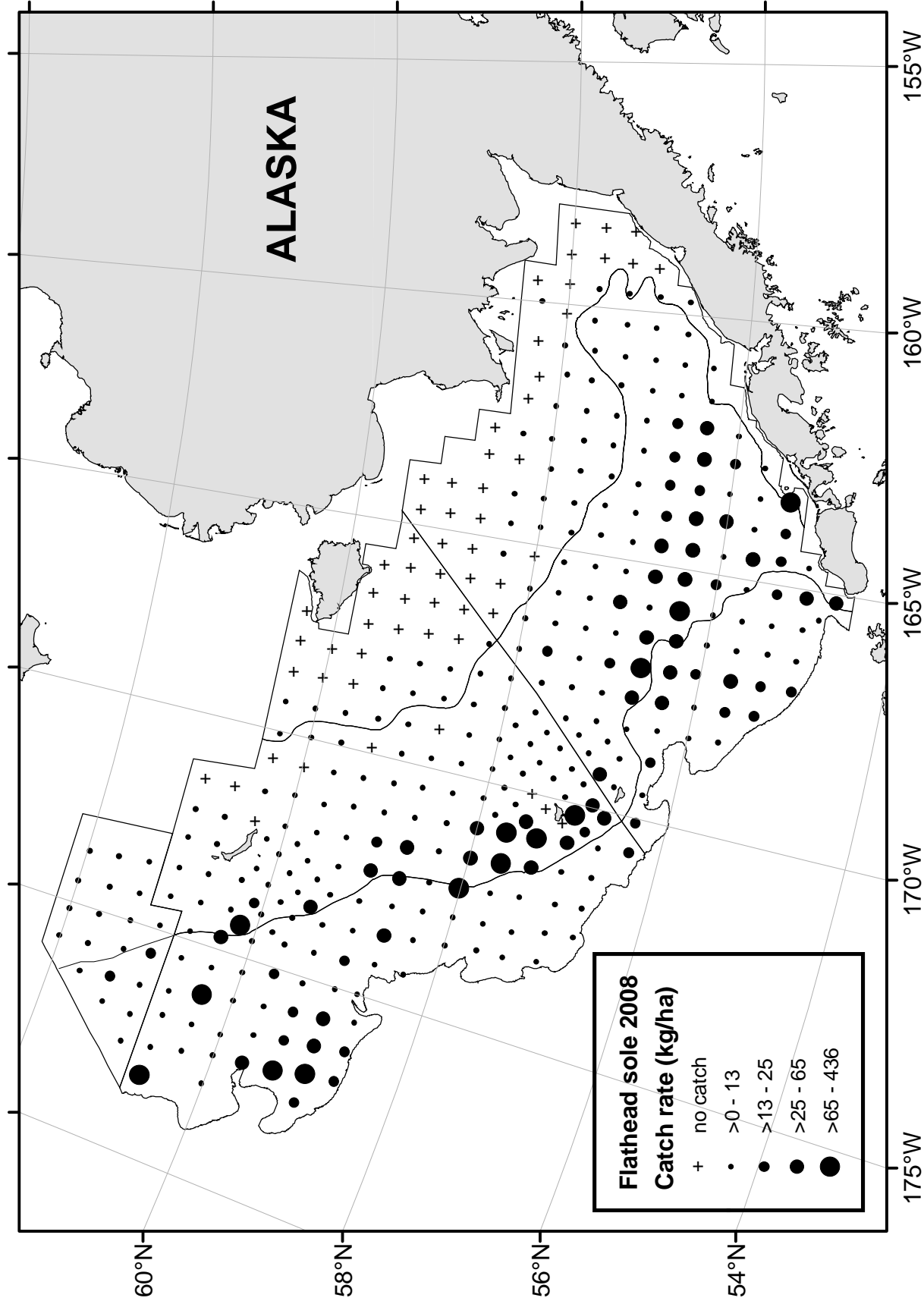


Figure 18. -- Distribution and relative abundance (kg/ha) of flathead sole and Bering flounder (*Hippoglossoides* spp.) for the 2008 eastern Bering Sea bottom trawl survey.

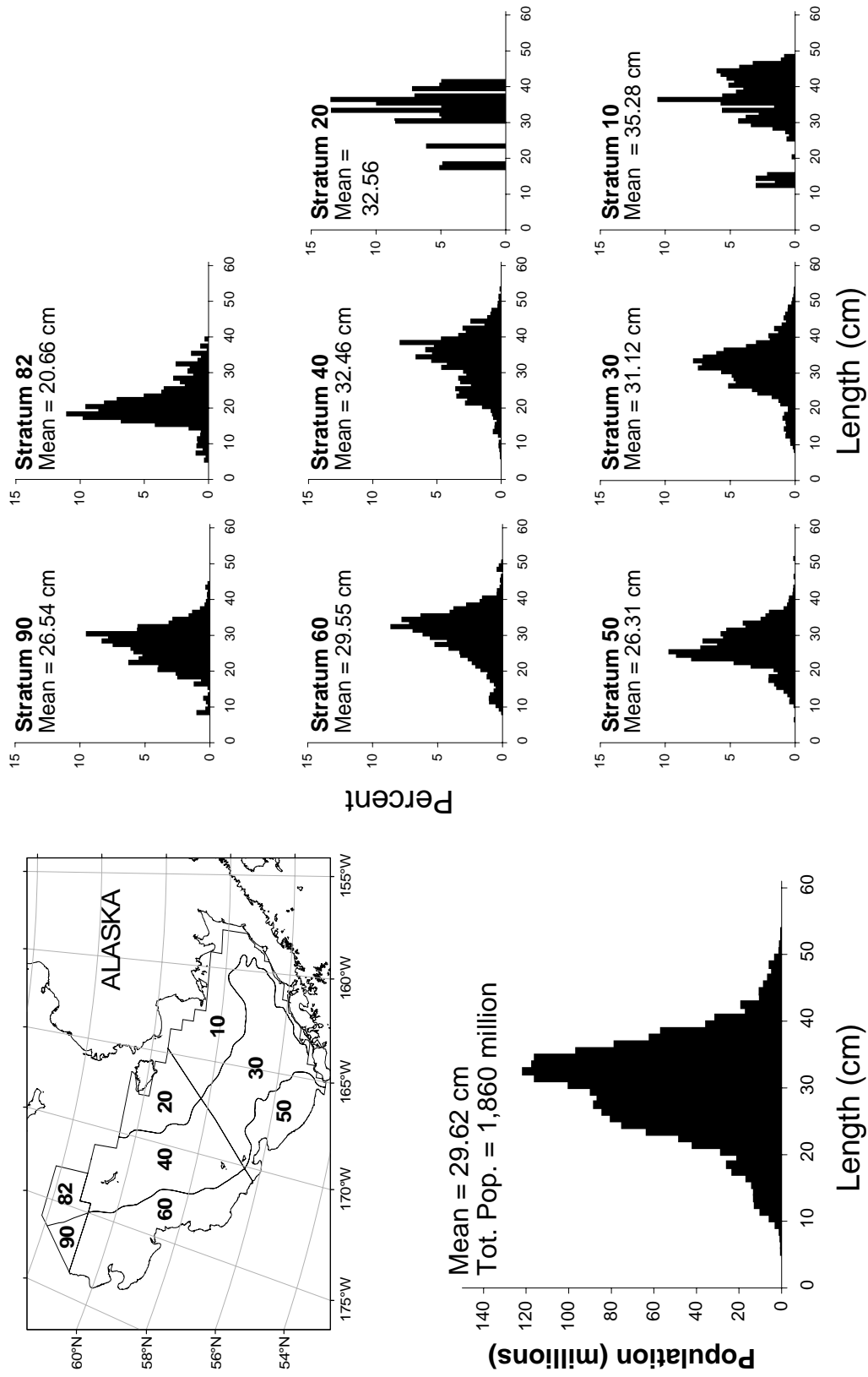


Figure 19. -- Estimated relative size distributions (sexes combined) of flathead sole and Bering flounder (*Hippoglossoides* spp.) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 13a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **flathead sole** and **Bering flounder** (*Hippoglossoides* spp.) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch numbers	Hauls with length measurements	
					Lower	Upper				
10	1.03	2.16E-01	7,984	1.68E+03	4,585	11,383	57	29	29	28
20	0.13	5.13E-02	535	2.10E+02	106	965	31	12	12	12
Subtotal	0.72	1.43E-01	8,519	1.70E+03	5,094	11,945	88	41	41	40
31	16.64	2.60E+00	157,299	2.46E+04	108,109	206,488	69	69	69	69
32	10.12	5.50E+00	8,879	4.83E+03	0	20,698	8	8	8	8
41	7.01	2.49E+00	43,926	1.56E+04	12,366	75,486	44	38	38	38
42	17.59	5.03E+00	42,238	1.21E+04	17,562	66,915	31	28	28	28
43	8.55	4.52E+00	18,044	9.54E+03	0	37,942	22	21	21	21
82	2.47	9.40E-01	5,094	1.94E+03	768	9,419	12	12	12	12
Subtotal	11.89	1.44E+00	275,480	3.34E+04	209,439	341,520	186	176	176	176
50	13.34	1.99E+00	51,733	7.73E+03	35,802	67,664	26	26	26	26
61	23.72	7.92E+00	209,040	6.98E+04	67,892	350,188	60	60	60	60
62	9.00	3.18E+00	5,789	2.04E+03	791	10,787	7	7	7	7
90	6.46	2.30E+00	7,476	2.66E+03	1,194	13,759	8	8	8	7
Subtotal	18.91	4.85E+00	274,038	7.03E+04	133,343	414,733	101	101	101	100
Total	11.26	1.57E+00	558,037	7.79E+04	402,292	713,782	375	318	318	316

*Differences in sums of estimates and totals are due to rounding.

Table 13b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **flathead sole** and **Bering flounder** (*Hippoglossoides* spp.) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	1.99	5.29E-01	15,502,932	4.12E+06	7,173,837	23,832,027	57	29	29	28
20	0.33	1.21E-01	1,346,582	4.95E+05	335,158	2,358,007	31	12	12	12
Subtotal	1.42	3.49E-01	16,849,514	4.15E+06	8,460,481	25,238,547	88	41	41	40
31	50.76	8.56E+00	479,802,639	8.09E+07	317,903,754	641,701,524	69	69	69	69
32	23.53	1.34E+01	20,641,891	1.18E+07	0	49,452,171	8	8	8	8
41	17.79	6.28E+00	111,525,561	3.94E+07	31,897,291	191,153,830	44	38	38	38
42	41.97	1.23E+01	100,769,093	2.96E+07	40,143,942	161,394,244	31	28	28	28
43	21.79	1.06E+01	45,996,433	2.24E+07	0	92,738,768	22	21	21	21
82	24.34	9.54E+00	50,265,614	1.97E+07	6,358,867	94,172,361	12	12	12	12
Subtotal	34.90	4.32E+00	809,001,230	1.00E+08	610,871,134	1,007,131,327	186	176	176	176
50	74.51	1.08E+01	289,031,726	4.18E+07	202,856,171	375,207,282	26	26	26	26
61	78.31	2.04E+01	690,193,512	1.80E+08	326,350,012	1,054,037,013	60	60	60	60
62	28.89	8.94E+00	18,569,129	5.74E+06	4,511,615	32,626,644	7	7	7	7
90	31.19	1.12E+01	36,085,355	1.29E+07	5,571,973	66,598,738	8	8	8	7
Subtotal	71.34	1.28E+01	1,033,879,723	1.85E+08	663,146,606	1,404,612,839	101	101	101	100
Total	37.52	4.25E+00	1,859,730,467	2.11E+08	1,438,346,384	2,281,114,551	375	318	318	316

*Differences in sums of estimates and totals are due to rounding.

Alaska plaice

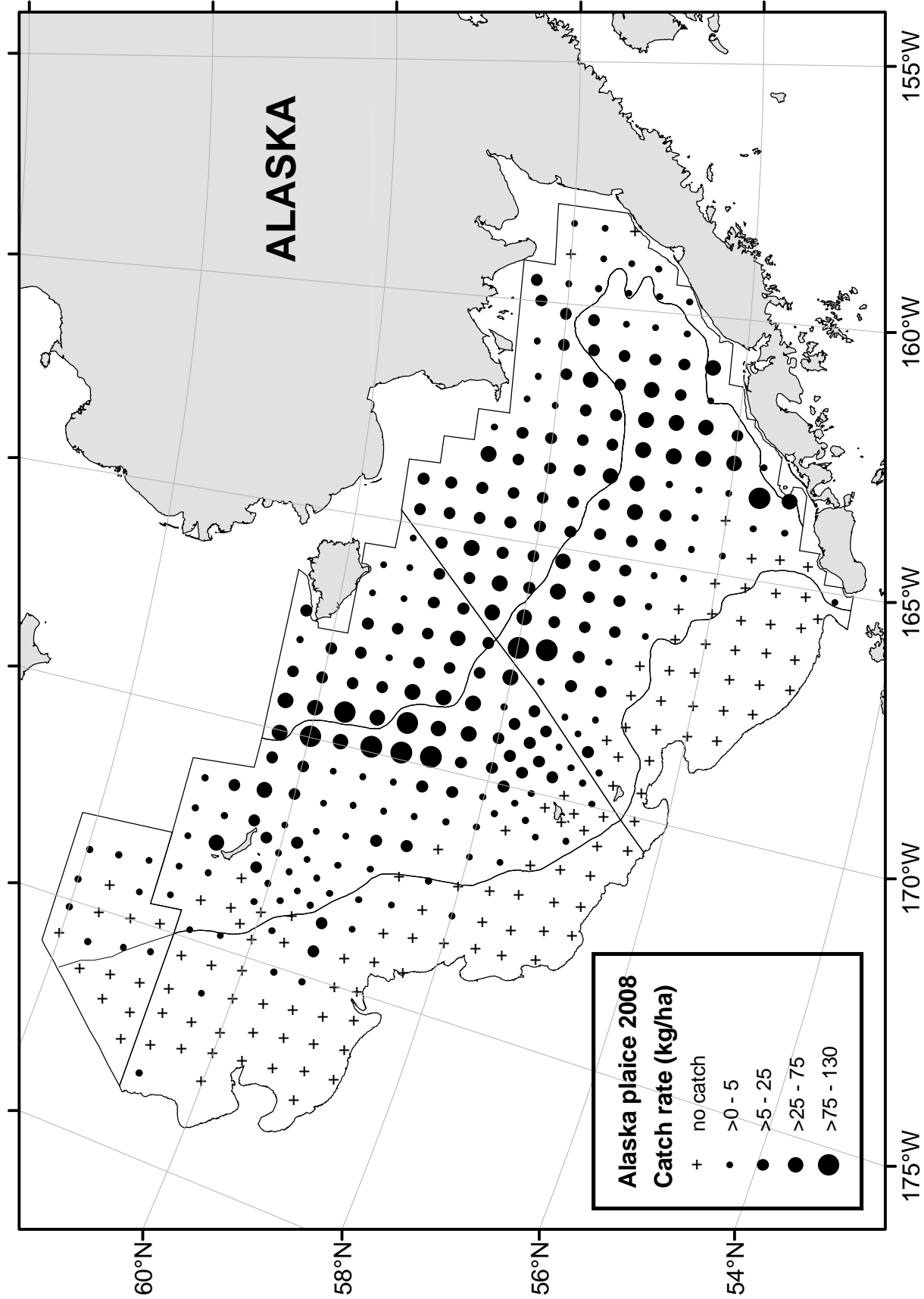


Figure 20. -- Distribution and relative abundance (kg/ha) of Alaska plaice (*Pleuronectes quadrituberculatus*) for the 2008 eastern Bering Sea bottom trawl survey.

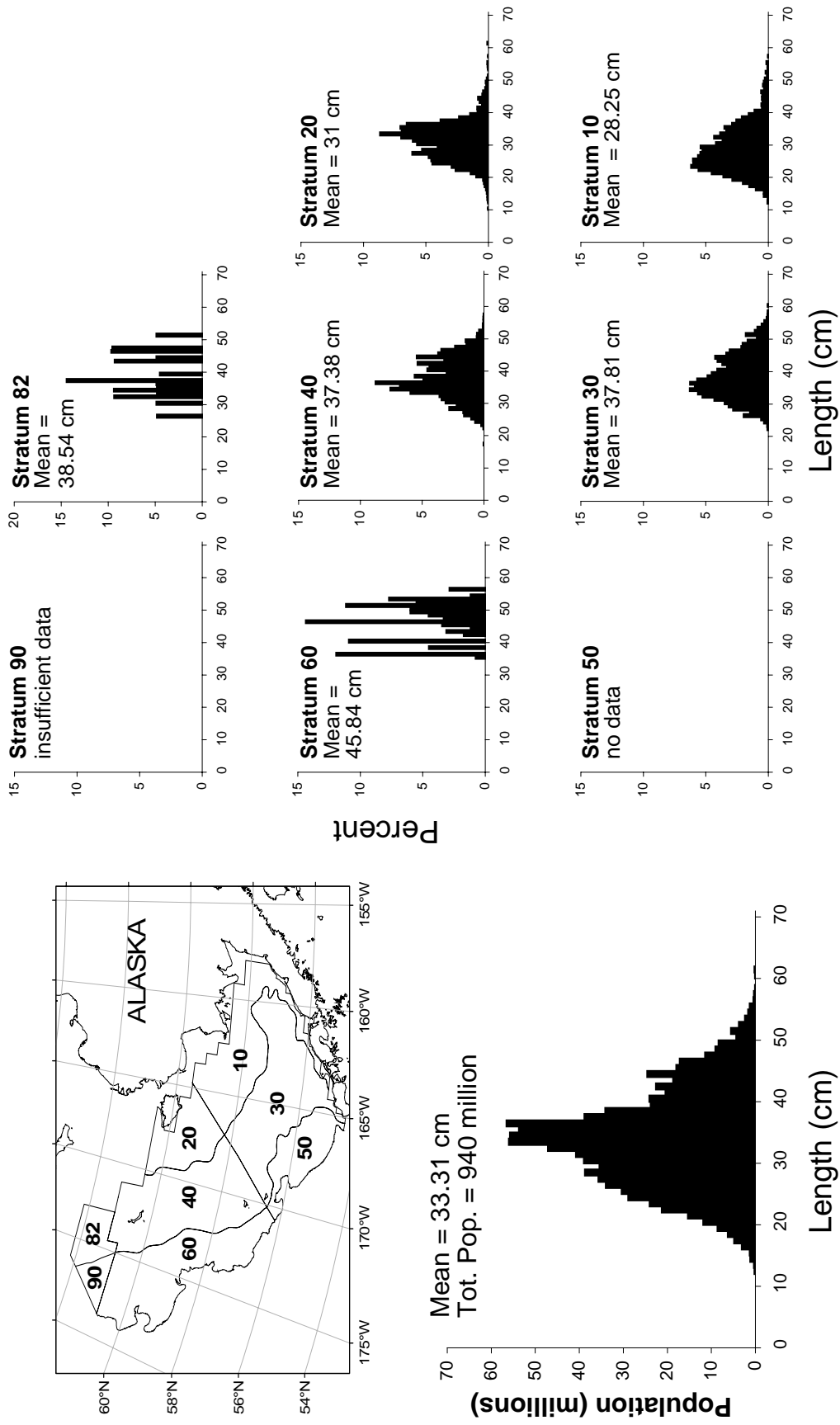


Figure 21. -- Estimated relative size distributions (sexes combined) of **Alaska plaice** (*Pleuronectes quadrituberculatus*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 14a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Alaska plaice** (*Pleuronectes quadrituberculatus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	11.26	1.45E+00	87,658	1.13E+04	64,797	110,519	57	55	55	54
20	23.35	4.63E+00	95,779	1.90E+04	56,962	134,597	31	31	31	31
Subtotal	15.43	1.86E+00	183,437	2.21E+04	138,780	228,095	88	86	86	85
31	16.04	2.57E+00	151,590	2.43E+04	103,052	200,129	69	58	58	58
32	1.72	6.86E-01	1,511	6.02E+02	87	2,936	8	5	5	5
41	23.58	5.42E+00	147,847	3.40E+04	79,161	216,533	44	41	41	40
42	5.18	1.14E+00	12,433	2.73E+03	6,861	18,006	31	24	24	24
43	3.66	1.24E+00	7,716	2.62E+03	2,264	13,168	22	18	18	18
82	0.30	1.43E-01	613	2.95E+02	0	1,272	12	7	7	7
Subtotal	13.88	1.81E+00	321,711	4.19E+04	237,834	405,588	186	153	153	152
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.23	8.15E-02	2,062	7.18E+02	610	3,513	60	9	9	9
62	3.16	2.22E+00	2,028	1.43E+03	0	5,528	7	4	4	4
90	0.12	8.93E-02	143	1.03E+02	0	396	8	2	2	2
Subtotal	0.29	1.11E-01	4,233	1.60E+03	794	7,673	101	15	15	15
Total	10.28	9.57E-01	509,382	4.74E+04	415,469	603,295	375	508	508	252

*Differences in sums of estimates and totals are due to rounding.

Table 14b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Alaska plaice** (*Pleuronectes quadrituberculatus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	33.93	4.50E+00	264,220,558	3.50E+07	193,388,364	335,052,752	57	55	55	54
20	58.12	9.65E+00	238,429,323	3.96E+07	157,462,760	319,395,887	31	31	31	31
Subtotal	42.28	4.45E+00	502,649,881	5.29E+07	395,786,346	609,513,416	88	86	86	85
31	21.13	3.16E+00	199,719,922	2.99E+07	139,948,128	259,491,716	69	58	58	58
32	1.73	6.57E-01	1,517,567	5.76E+05	154,664	2,880,470	8	5	5	5
41	32.90	7.37E+00	206,274,146	4.62E+07	112,908,398	299,639,893	44	41	41	40
42	6.75	1.61E+00	16,195,946	3.86E+06	8,321,299	24,070,593	31	24	24	24
43	4.83	1.62E+00	10,193,802	3.42E+06	3,075,098	17,312,505	22	18	18	18
82	0.36	1.58E-01	740,764	3.27E+05	11,973	1,469,554	12	7	7	7
Subtotal	18.75	2.38E+00	434,642,146	5.53E+07	324,108,406	545,175,886	186	153	153	152
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.16	6.00E-02	1,439,725	5.29E+05	371,304	2,508,147	60	9	9	9
62	1.60	1.14E+00	1,029,580	7.33E+05	0	2,822,475	7	4	4	4
90	0.10	7.57E-02	114,656	8.75E+04	0	328,819	8	2	2	2
Subtotal	0.18	6.26E-02	2,583,962	9.08E+05	636,877	4,531,047	101	15	15	15
Total	18.96	1.54E+00	939,875,989	7.65E+07	788,419,812	1,091,332,166	375	508	508	252

*Differences in sums of estimates and totals are due to rounding.

Greenland turbot

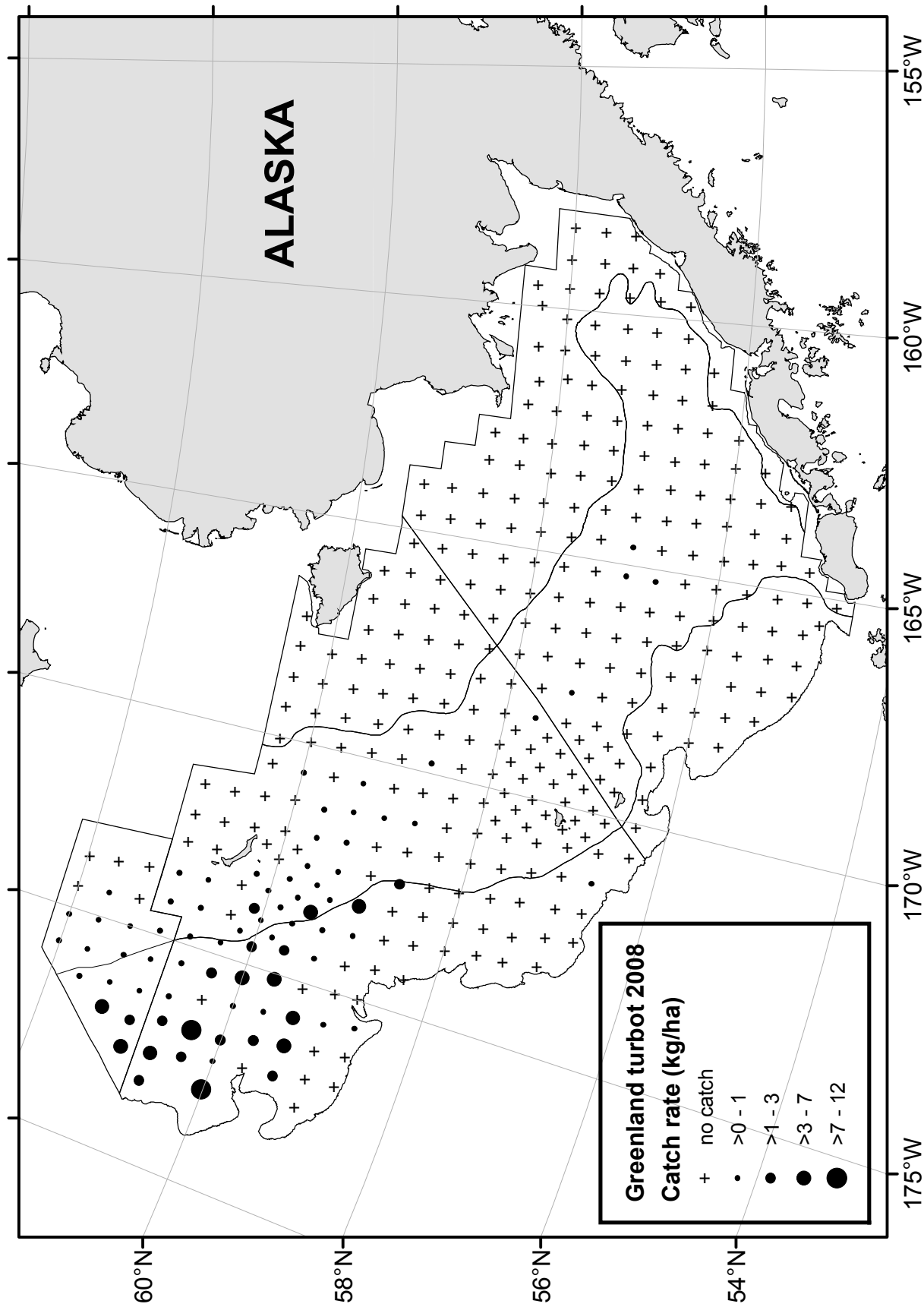


Figure 22. -- Distribution and relative abundance (kg/ha) of Greenland turbot (*Reinhardtius hippoglossoides*) for the 2008 eastern Bering Sea bottom trawl survey.

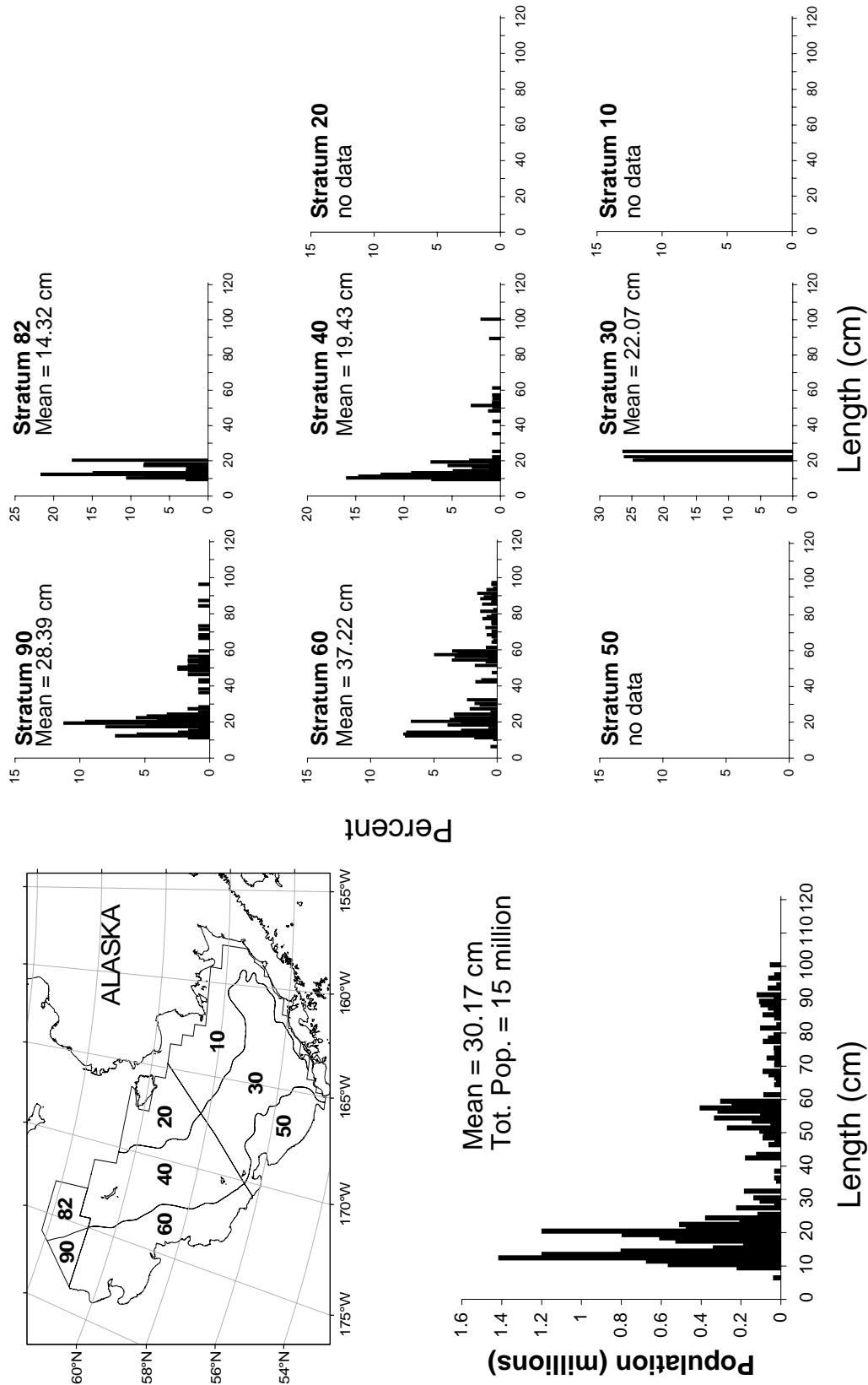


Figure 23. -- Estimated relative size distributions (sexes combined) of **Greenland turbot** (*Reinhardtius hippoglossoides*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 15a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Greenland turbot** (*Reinhardtius hippoglossoides*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch numbers	Hauls with length measurements
					Lower	Upper			
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0
31	0.00	5.70E-04	10	5.39E+00	0	20	69	4	4
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0
41	0.01	4.51E-03	44	2.83E+01	0	101	44	12	12
42	0.00	4.81E-04	1	1.15E+00	0	4	31	1	1
43	0.45	2.41E-01	957	5.09E+02	0	2,017	22	15	15
82	0.01	5.99E-03	28	1.24E+01	1	55	12	7	7
Subtotal	0.04	2.20E-02	1,040	5.10E+02	0	2,085	186	39	39
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0
61	1.15	3.08E-01	10,168	2.72E+03	4,674	15,662	60	25	24
62	0.55	2.60E-01	352	1.67E+02	0	760	7	7	7
90	1.69	7.76E-01	1,955	8.97E+02	0	4,150	8	8	8
Subtotal	0.86	1.98E-01	12,474	2.87E+03	6,739	18,209	101	40	39
Total	0.27	5.88E-02	13,514	2.91E+03	7,689	19,340	375	158	78

*Differences in sums of estimates and totals are due to rounding.

Table 15b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Greenland turbot** (*Reinhardtius hippoglossoides*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31	0.01	5.84E-03	112,772	5.52E+04	2,339	223,205	69	4	4	4
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.18	5.55E-02	1,158,489	3.48E+05	454,839	1,862,139	44	12	12	12
42	0.04	4.49E-02	107,731	1.08E+05	0	328,042	31	1	1	1
43	0.62	1.51E-01	1,302,895	3.18E+05	641,118	1,964,672	22	15	15	15
82	0.62	2.35E-01	1,284,984	4.86E+05	214,909	2,355,059	12	7	7	7
Subtotal	0.17	2.97E-02	3,966,871	6.88E+05	2,557,658	5,376,085	186	39	39	39
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.77	1.80E-01	6,825,240	1.58E+06	3,625,478	10,025,001	60	25	25	24
62	1.54	1.09E+00	993,170	6.98E+05	0	2,701,529	7	7	7	7
90	3.04	7.93E-01	3,512,076	9.17E+05	1,268,437	5,755,716	8	8	8	8
Subtotal	0.78	1.35E-01	11,330,486	1.96E+06	7,413,957	15,247,015	101	40	40	39
Total	0.31	4.19E-02	15,297,357	2.08E+06	11,146,082	19,448,632	375	158	158	78

*Differences in sums of estimates and totals are due to rounding.

Arrowtooth flounder

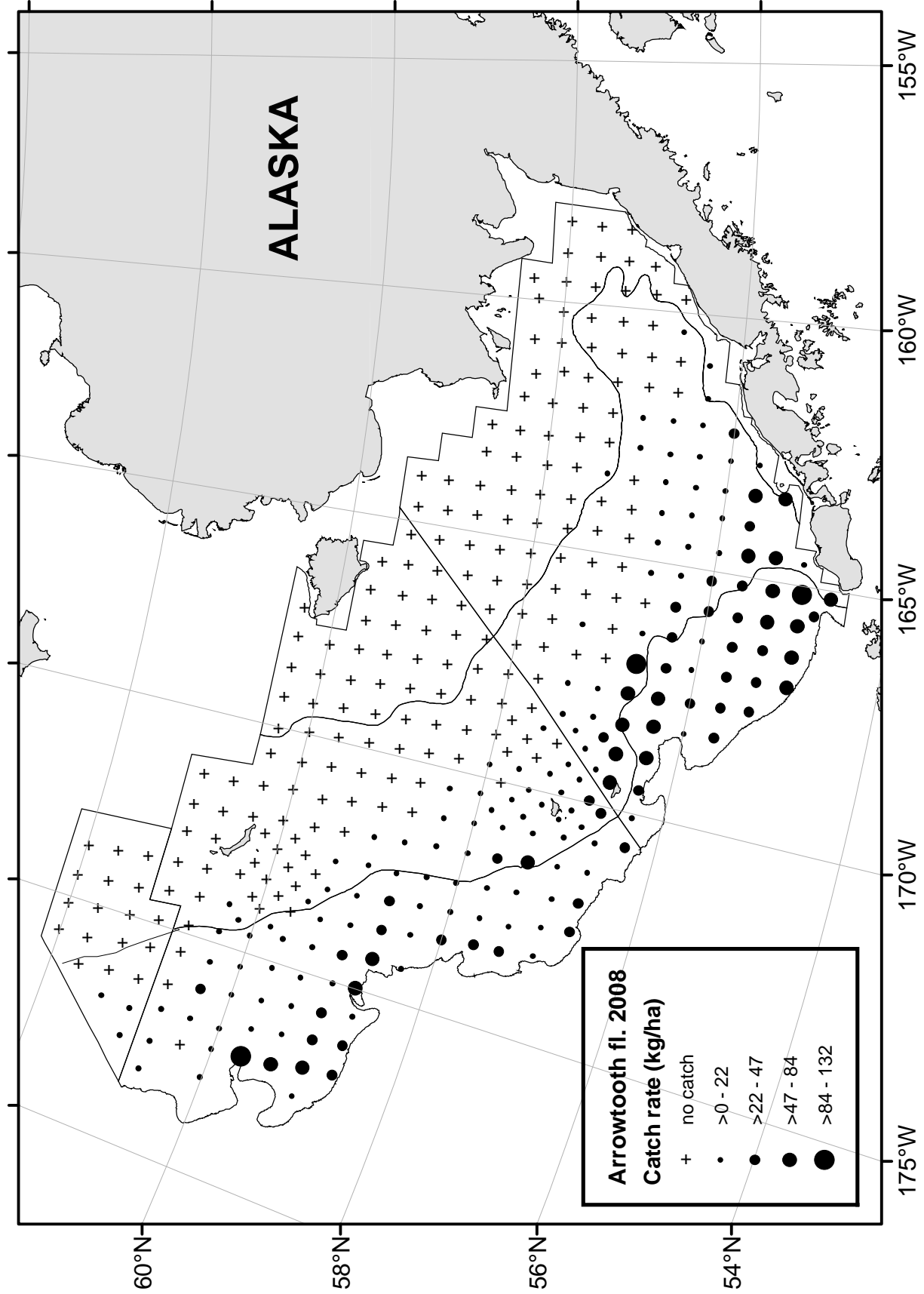


Figure 24. -- Distribution and relative abundance (kg/ha) of Arrowtooth flounder (*Atheresthes stomias*) for the 2008 eastern Bering Sea bottom trawl survey.

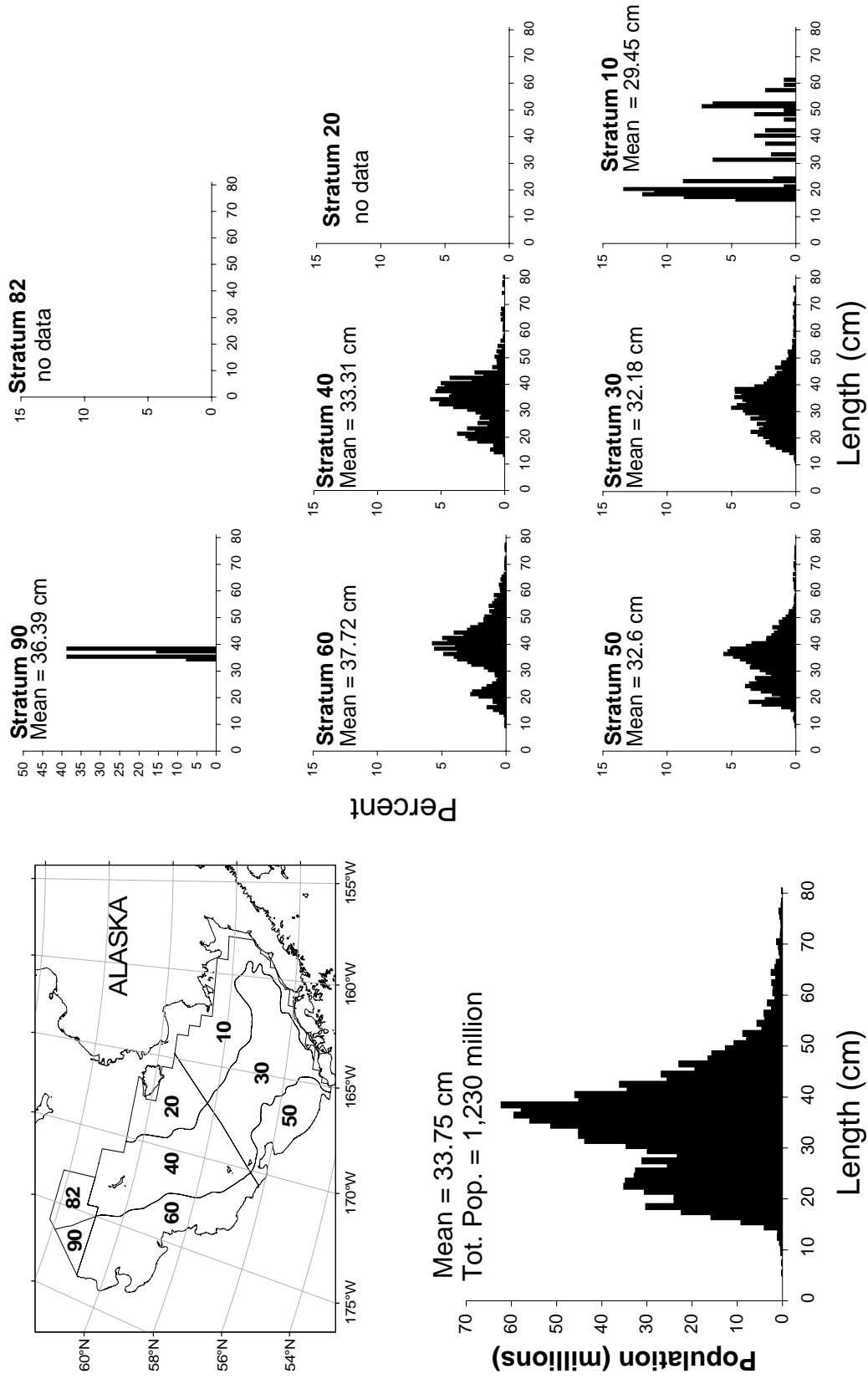


Figure 25. -- Estimated relative size distributions (sexes combined) of arrowtooth flounder (*Atheresthes stomias*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 16a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **arrowtooth flounder** (*Atheresthes stomias*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch numbers	Hauls with length measurements
					Lower	Upper			
10	0.19	1.16E-01	1,487	9.00E+02	0	3,306	57	4	4
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0
Subtotal	0.13	7.57E-02	1,487	9.00E+02	0	3,287	88	4	4
31	13.80	3.35E+00	130,400	3.16E+04	67,125	193,675	69	39	39
32	19.36	8.16E+00	16,986	7.16E+03	46	33,925	8	8	8
41	2.47	1.25E+00	15,483	7.87E+03	0	31,380	44	9	9
42	5.68	1.35E+00	13,628	3.25E+03	6,980	20,276	31	22	21
43	0.23	1.20E-01	476	2.54E+02	0	1,004	22	5	5
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0
Subtotal	7.64	1.45E+00	176,972	3.35E+04	109,898	244,046	186	83	82
50	44.17	5.29E+00	171,328	2.05E+04	129,017	213,639	26	26	26
61	20.17	2.69E+00	177,767	2.37E+04	129,786	225,749	60	57	56
62	3.73	1.63E+00	2,397	1.05E+03	0	4,960	7	6	6
90	0.15	1.19E-01	176	1.38E+02	0	513	8	3	3
Subtotal	24.27	2.17E+00	351,668	3.14E+04	288,846	414,490	101	92	91
Total	10.70	9.27E-01	530,127	4.60E+04	439,129	621,125	375	358	356

*Differences in sums of estimates and totals are due to rounding.

Table 16b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **arrowtooth flounder** (*Atheresthes stomias*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit Lower	95% Confidence limit Upper	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
10	0.45	2.74E-01	3,514,279	2.13E+06	0	7,825,494	57	4	4	4
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.30	1.79E-01	3,514,279	2.13E+06	0	7,780,697	88	4	4	4
31	35.70	8.20E+00	337,495,053	7.75E+07	182,565,528	492,424,577	69	39	39	39
32	68.11	2.88E+01	59,760,006	2.53E+07	0	119,623,835	8	8	8	8
41	4.51	2.33E+00	28,284,316	1.46E+07	0	57,783,468	44	9	9	9
42	18.60	4.73E+00	44,663,469	1.13E+07	21,457,459	67,869,479	31	22	21	21
43	0.30	1.68E-01	625,402	3.54E+05	0	1,362,308	22	5	5	5
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0	0
Subtotal	20.31	3.61E+00	470,828,246	8.36E+07	303,694,111	637,962,382	186	83	82	82
50	117.07	1.56E+01	454,154,116	6.05E+07	329,517,175	578,791,057	26	26	26	26
61	33.65	4.07E+00	296,571,711	3.59E+07	224,003,950	369,139,473	60	57	57	56
62	7.03	3.08E+00	4,517,966	1.98E+06	0	9,365,218	7	6	6	6
90	0.32	2.42E-01	370,304	2.80E+05	0	1,054,321	8	3	3	3
Subtotal	52.14	4.86E+00	755,614,097	7.04E+07	614,845,318	896,382,876	101	92	92	91
Total	24.82	2.20E+00	1,229,956,622	1.09E+08	1,013,583,587	1,446,329,657	375	358	356	177

*Differences in sums of estimates and totals are due to rounding.

Kamchatka flounder

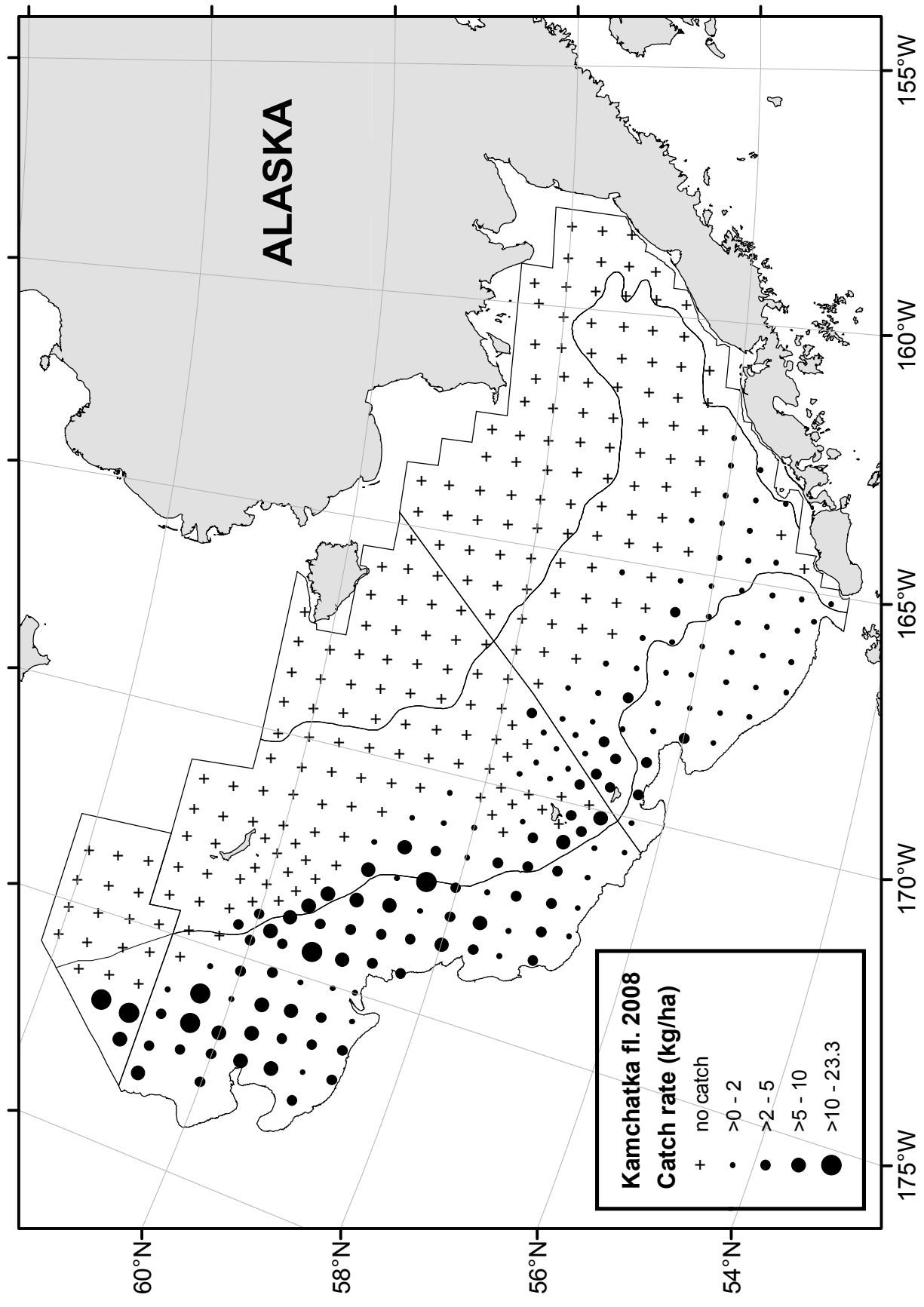


Figure 26. -- Distribution and relative abundance (kg/ha) of Kamchatka flounder (*Atheresthes evermanni*) for the 2008 eastern Bering Sea bottom trawl survey.

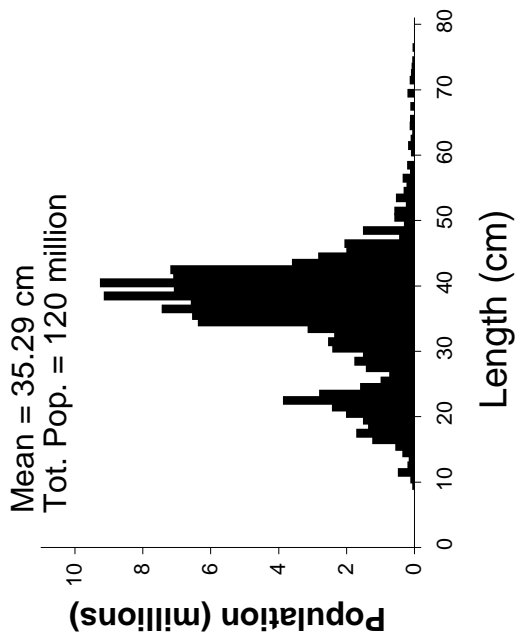
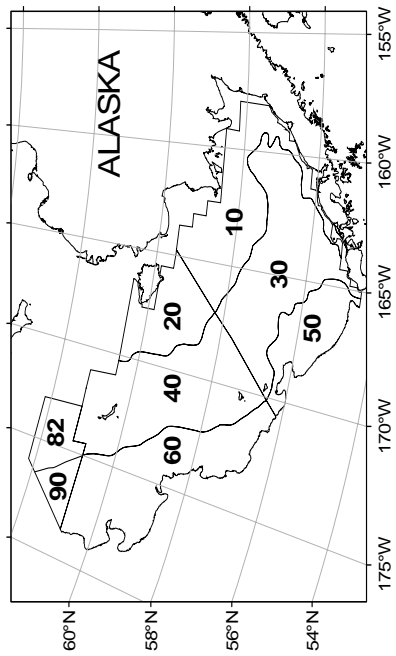
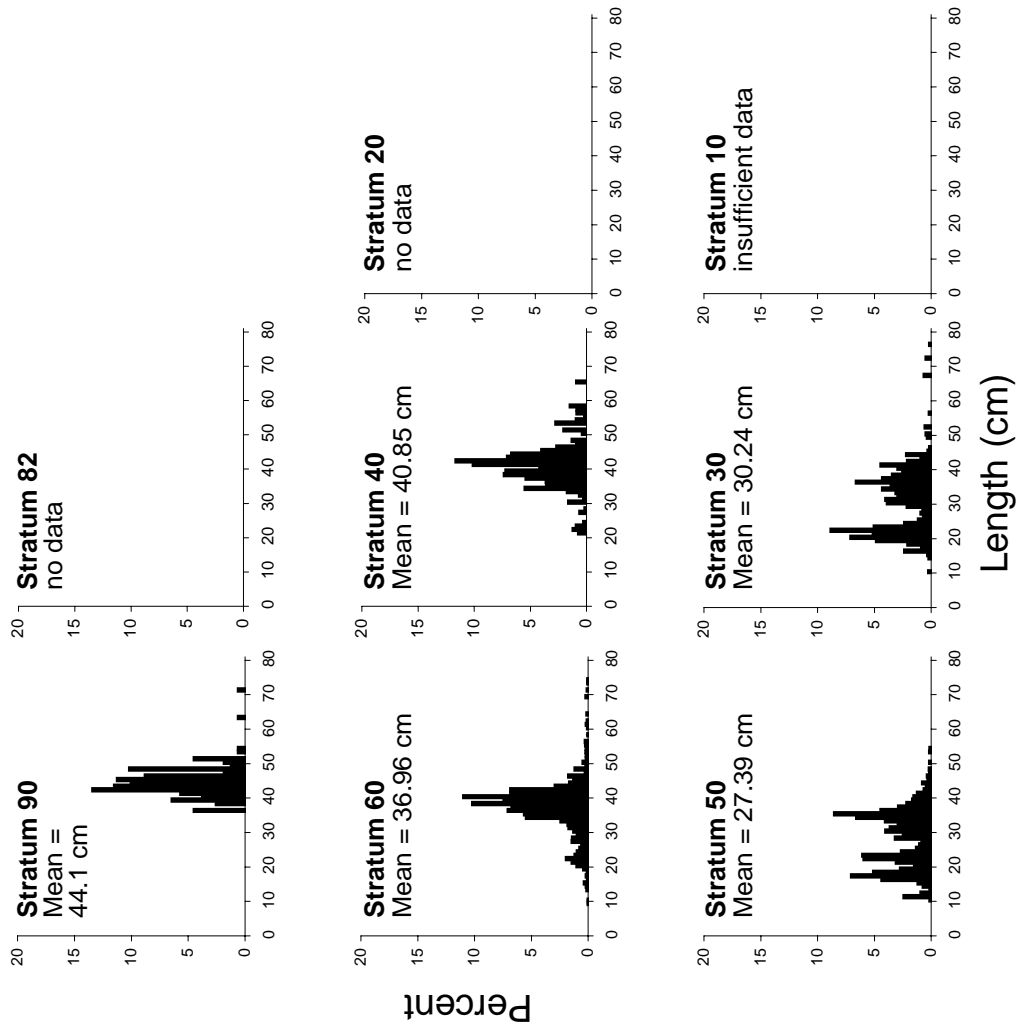


Figure 27. -- Estimated relative size distributions (sexes combined) of Kamchatka flounder (*Atheresthes evermanni*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 17a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Kamchatka flounder** (*Atheresthes evermanni*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch numbers	Hauls with length measurements
					Lower	Upper			
10	0.00	4.21E-04	3	3.28E+00	0	10	57	1	1
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0
Subtotal	0.00	2.76E-04	3	3.28E+00	0	10	88	1	1
31	0.23	7.52E-02	2,193	7.10E+02	772	3,613	69	25	23
32	2.31	4.71E-01	2,031	4.13E+02	1,020	3,042	8	8	8
41	0.50	2.09E-01	3,161	1.31E+03	512	5,811	44	10	10
42	0.99	2.95E-01	2,366	7.09E+02	915	3,817	31	15	15
43	0.89	4.26E-01	1,885	8.99E+02	15	3,756	22	4	4
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0
Subtotal	0.50	8.31E-02	11,636	1.93E+03	7,824	15,447	186	62	60
50	1.09	1.94E-01	4,233	7.52E+02	2,681	5,784	26	26	26
61	3.94	4.80E-01	34,731	4.23E+03	26,182	43,280	60	59	58
62	5.23	1.42E+00	3,364	9.12E+02	1,133	5,595	7	6	6
90	3.67	1.90E+00	4,248	2.20E+03	0	9,457	8	3	3
Subtotal	3.21	3.39E-01	46,576	4.91E+03	36,749	56,403	101	94	93
Total	1.17	1.06E-01	58,215	5.28E+03	47,661	68,769	375	314	154

*Differences in sums of estimates and totals are due to rounding.

Table 17b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Kamchatka flounder** (*Atheresthes evermanni*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.01	1.18E-02	91,935	9.19E+04	0	277,735	57	1	1	1
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.01	7.73E-03	91,935	9.19E+04	0	279,665	88	1	1	1
31	0.97	2.60E-01	9,123,561	2.46E+06	4,198,816	14,048,307	69	25	25	23
32	5.04	1.68E+00	4,418,039	1.47E+06	812,791	8,023,288	8	8	8	8
41	0.65	2.51E-01	4,085,063	1.58E+06	899,217	7,270,909	44	10	10	10
42	1.77	5.72E-01	4,248,105	1.37E+06	1,437,716	7,058,495	31	15	15	15
43	0.89	4.48E-01	1,886,884	9.45E+05	0	3,853,458	22	4	4	4
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0	0
Subtotal	1.03	1.59E-01	23,761,653	3.67E+06	16,486,271	31,037,035	186	62	62	60
50	4.84	6.58E-01	18,764,661	2.55E+06	13,495,935	24,033,388	26	26	26	26
61	7.71	6.82E-01	67,976,789	6.01E+06	55,825,844	80,127,735	60	59	59	58
62	6.76	2.37E+00	4,346,458	1.52E+06	621,997	8,070,919	7	6	6	6
90	3.95	2.04E+00	4,566,476	2.36E+06	0	10,138,207	8	3	3	3
Subtotal	6.60	4.91E-01	95,654,384	7.11E+06	81,437,297	109,871,472	101	94	94	93
Total	2.41	1.61E-01	119,507,972	8.00E+06	103,502,808	135,513,137	375	314	314	154

*Differences in sums of estimates and totals are due to rounding.

Pacific halibut

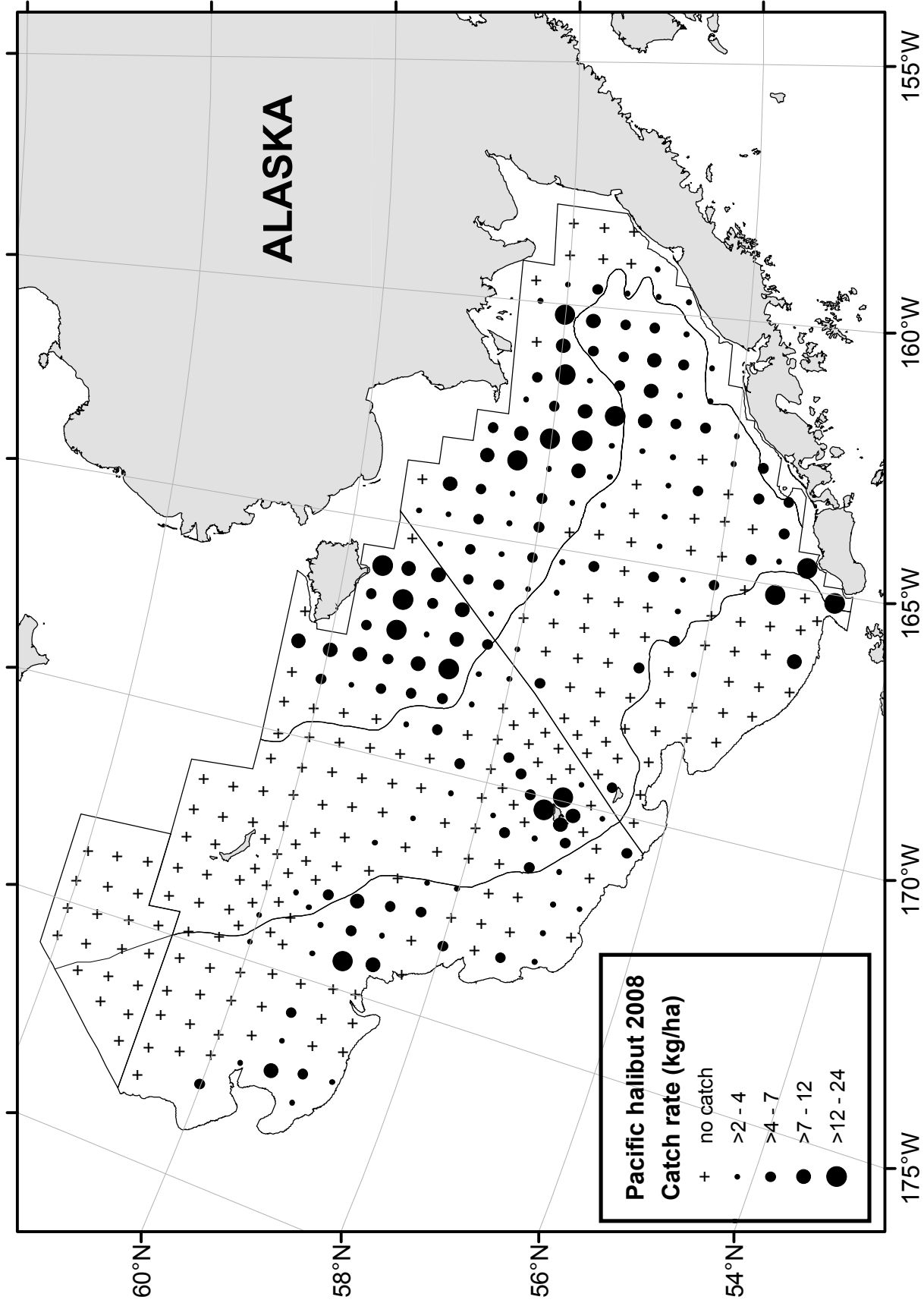


Figure 28. -- Distribution and relative abundance (kg/ha) of Pacific halibut (*Hippoglossus stenolepis*) for the 2008 eastern Bering Sea bottom trawl survey.

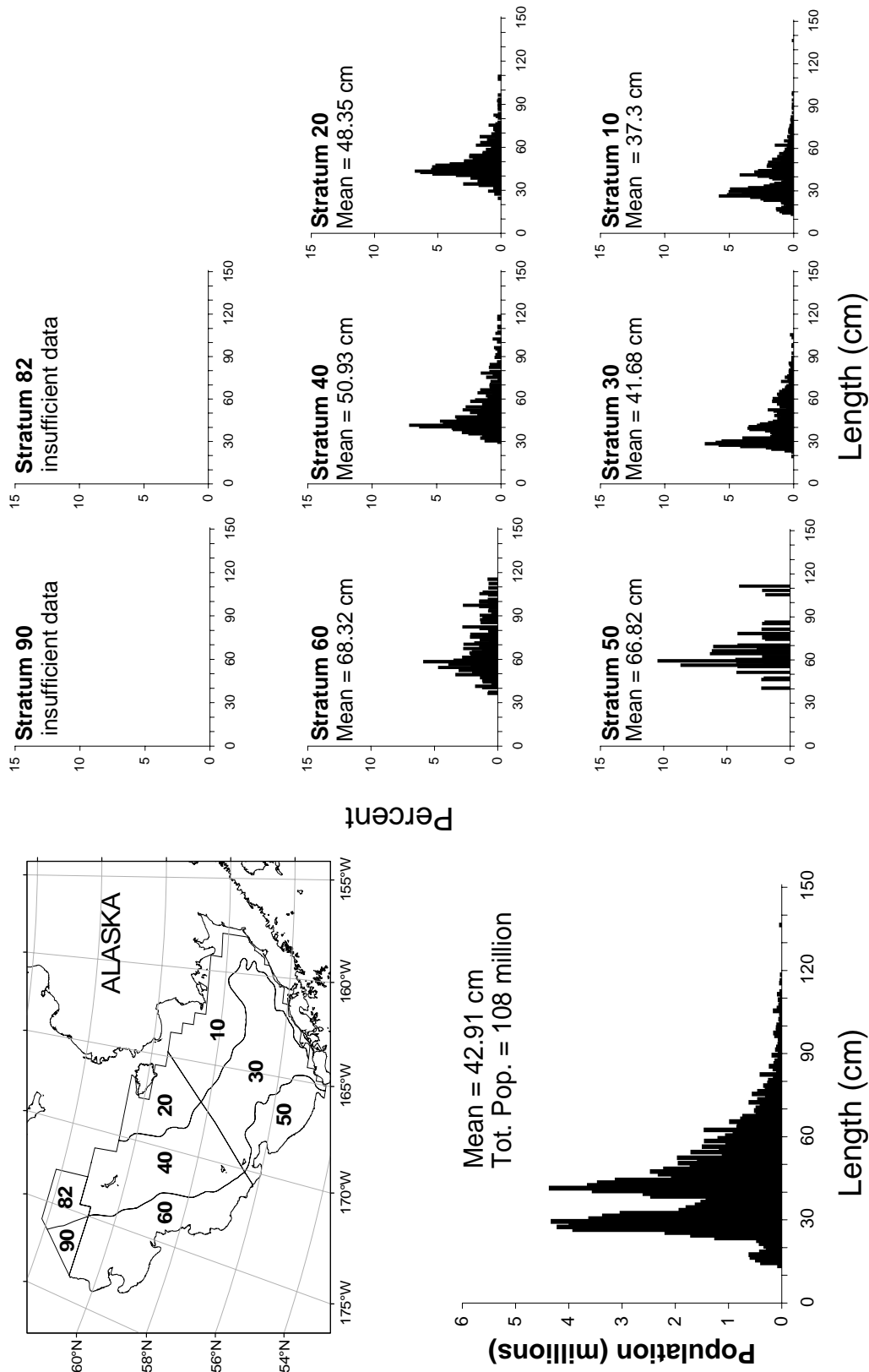


Figure 29. -- Estimated relative size distributions (sexes combined) of **Pacific halibut** (*Hippoglossus stenolepis*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 18a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Pacific halibut** (*Hippoglossus stenolepis*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch numbers	Hauls with length measurements
					Lower	Upper			
10	4.95	5.09E-01	38,543	3.96E+03	30,533	46,553	57	57	57
20	6.18	8.75E-01	25,336	3.59E+03	17,994	32,678	31	28	28
Subtotal	5.37	4.50E-01	63,879	5.35E+03	53,184	74,575	88	85	85
31	3.54	4.16E-01	33,416	3.93E+03	25,557	41,274	69	68	65
32	1.36	8.17E-01	1,194	7.16E+02	0	2,947	8	4	4
41	1.05	2.15E-01	6,605	1.35E+03	3,886	9,324	44	31	31
42	3.20	8.87E-01	7,681	2.13E+03	3,330	12,032	31	26	26
43	0.88	2.85E-01	1,865	6.01E+02	610	3,119	22	17	17
82	0.03	1.80E-02	55	3.72E+01	0	137	12	2	2
Subtotal	2.19	2.05E-01	50,815	4.76E+03	41,294	60,337	186	148	145
50	1.49	5.60E-01	5,785	2.17E+03	1,313	10,257	26	17	17
61	2.11	3.38E-01	18,604	2.98E+03	12,580	24,628	60	42	42
62	1.56	5.30E-01	1,002	3.41E+02	125	1,879	7	6	6
90	0.15	7.79E-02	169	9.01E+01	0	382	8	4	4
Subtotal	1.76	2.56E-01	25,560	3.70E+03	18,151	32,969	101	69	69
Total	2.83	1.63E-01	140,254	8.06E+03	124,293	156,216	375	604	299

*Differences in sums of estimates and totals are due to rounding.

Table 18b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Pacific halibut** (*Hippoglossus stenolepis*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper			
10	6.02	7.42E-01	46,881,102	5.77E+06	35,210,412	58,551,792	57	57	57
20	4.14	6.42E-01	16,971,428	2.63E+06	11,584,007	22,358,848	31	28	28
Subtotal	5.37	5.34E-01	63,852,530	6.35E+06	51,158,038	76,547,021	88	85	85
31	3.17	5.76E-01	29,994,023	5.45E+06	19,098,192	40,889,855	69	68	65
32	0.38	2.49E-01	336,478	2.19E+05	0	871,304	8	4	4
41	0.57	9.68E-02	3,565,915	6.07E+05	2,339,253	4,792,577	44	31	31
42	1.56	6.01E-01	3,754,888	1.44E+06	808,986	6,700,791	31	26	26
43	0.40	8.40E-02	844,297	1.77E+05	474,577	1,214,018	22	17	17
82	0.03	2.30E-02	70,378	4.75E+04	0	174,820	12	2	2
Subtotal	1.66	2.45E-01	38,565,980	5.68E+06	27,215,055	49,916,905	186	148	145
50	0.36	1.35E-01	1,409,699	5.22E+05	334,814	2,484,584	26	17	17
61	0.45	7.24E-02	3,949,515	6.38E+05	2,660,634	5,238,396	60	42	42
62	0.45	1.10E-01	289,210	7.06E+04	107,678	470,742	7	6	6
90	0.12	5.11E-02	140,107	5.91E+04	355	279,858	8	4	4
Subtotal	0.40	5.72E-02	5,788,531	8.29E+05	4,130,268	7,446,793	101	69	69
Total	2.18	1.73E-01	108,207,040	8.55E+06	91,268,391	125,145,690	375	604	299

*Differences in sums of estimates and totals are due to rounding.

Starry flounder

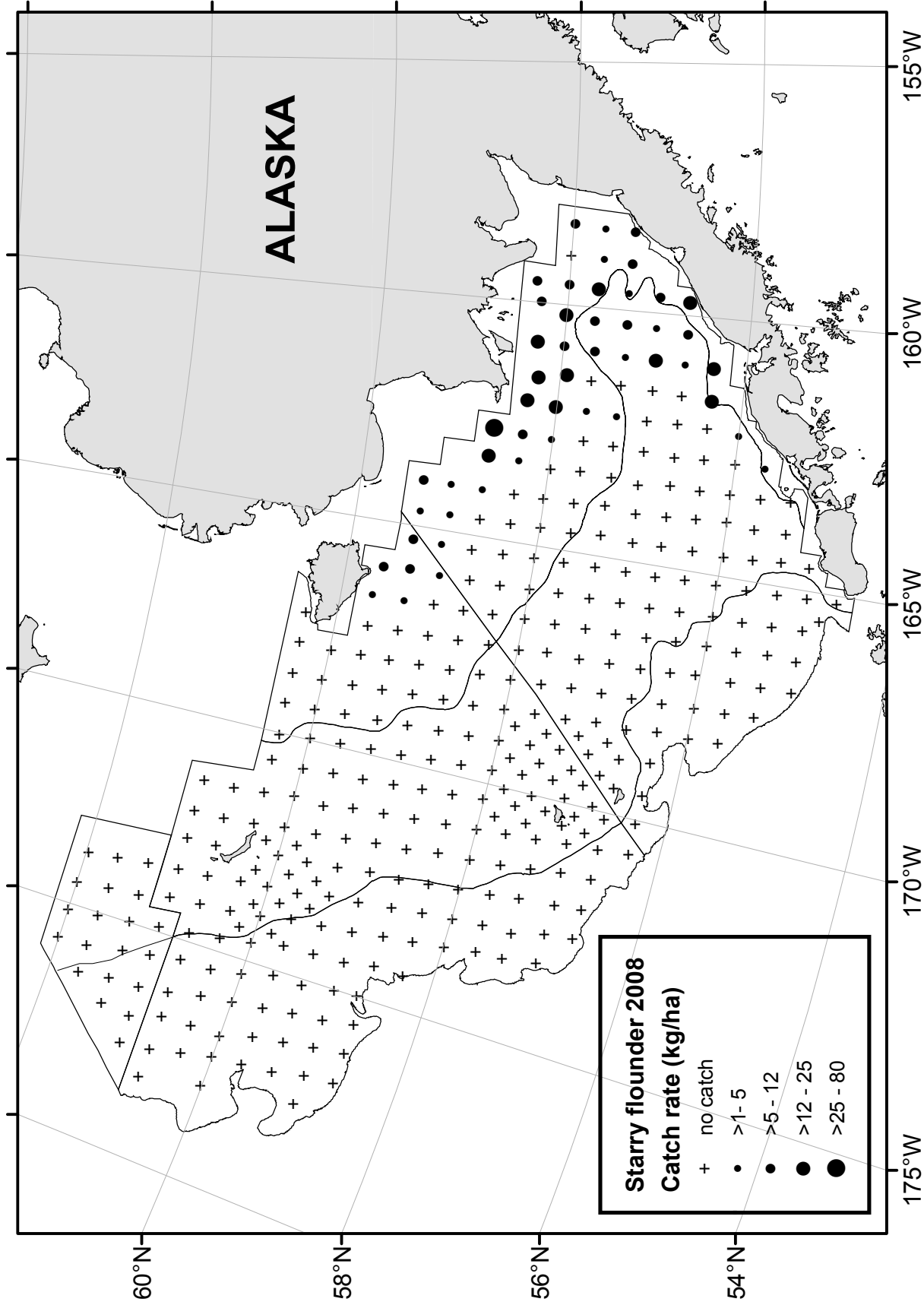


Figure 30. -- Distribution and relative abundance (kg/ha) of starry flounder (*Platichthys stellatus*) for the 2008 eastern Bering Sea bottom trawl survey.

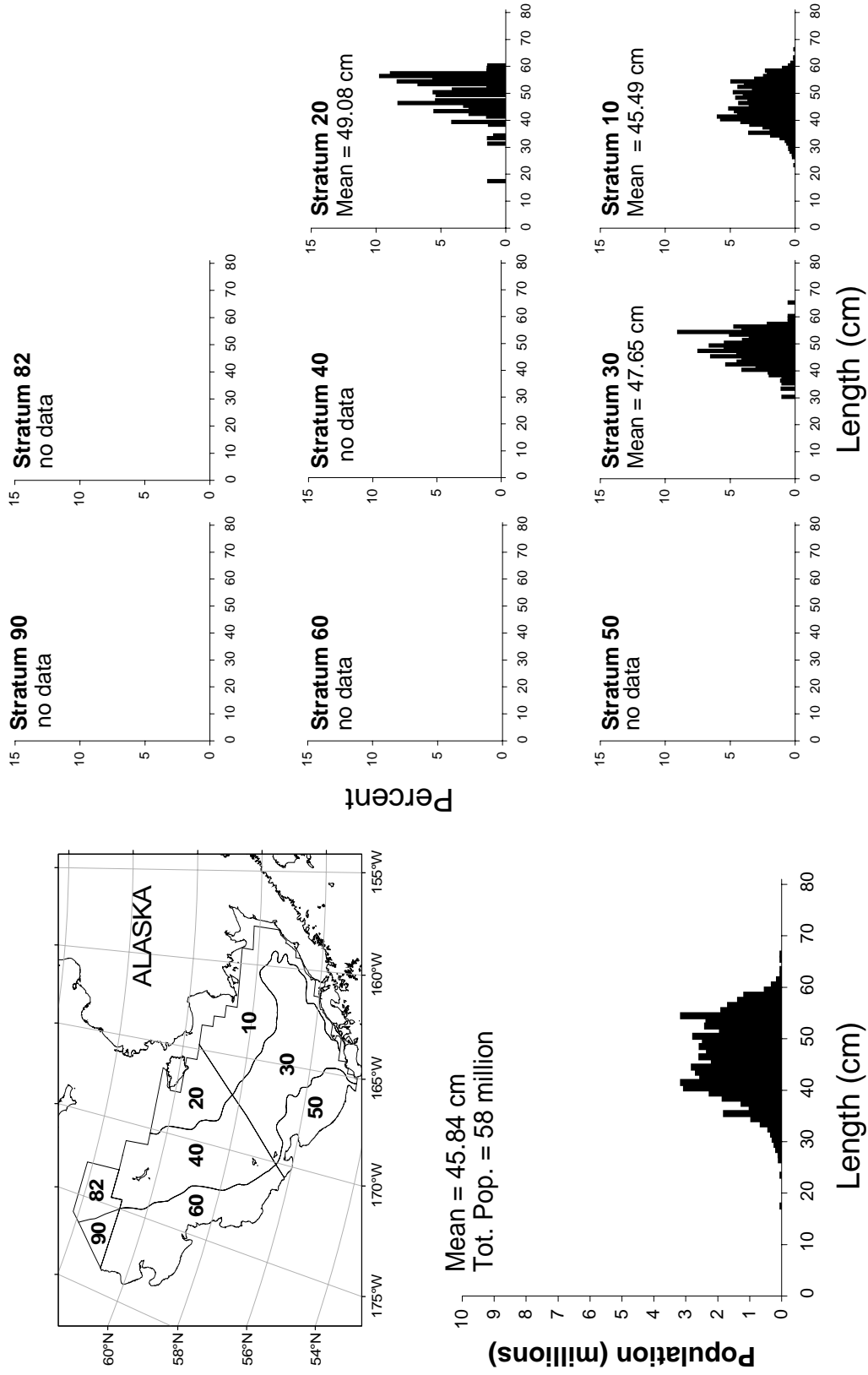


Figure 31. -- Estimated relative size distributions (sexes combined) of starry flounder (*Platichthys stellatus*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 19a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **starry flounder** (*Platichthys stellatus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch numbers	Hauls with length measurements
					Lower	Upper			
10	7.92	1.94E+00	61,668	1.51E+04	31,205	92,131	57	44	44
20	0.91	3.95E-01	3,728	1.62E+03	420	7,036	31	10	10
Subtotal	5.50	1.28E+00	65,396	1.52E+04	34,758	96,034	88	54	54
31	0.92	3.75E-01	8,656	3.54E+03	1,567	15,745	69	12	12
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0
41	0.00	0.00E+00	0	0.00E+00	0	0	44	0	0
42	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0
43	0.01	1.15E-02	24	2.43E+01	0	75	22	1	1
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0
Subtotal	0.37	1.53E-01	8,680	3.54E+03	1,592	15,769	186	13	13
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0
Total	1.49	3.14E-01	74,077	1.56E+04	42,939	105,214	375	134	67

*Differences in sums of estimates and totals are due to rounding.

Table 19b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **starry flounder** (*Platichthys stellatus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	6.32	1.86E+00	49,240,498	1.45E+07	19,988,191	78,492,805	57	44	44	44
20	0.54	2.30E-01	2,214,070	9.43E+05	289,483	4,138,658	31	10	10	10
Subtotal	4.33	1.22E+00	51,454,568	1.45E+07	22,140,310	80,768,826	88	54	54	54
31	0.64	2.72E-01	6,022,402	2.57E+06	887,282	11,157,521	69	12	12	12
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.00	0.00E+00	0	0.00E+00	0	0	44	0	0	0
42	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
43	0.03	2.88E-02	60,885	6.09E+04	0	187,891	22	1	1	1
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0	0
Subtotal	0.26	1.11E-01	6,083,286	2.57E+06	946,724	11,219,849	186	13	13	13
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	1.16	2.97E-01	57,537,855	1.47E+07	28,076,958	86,998,751	375	134	134	67

*Differences in sums of estimates and totals are due to rounding.

Bering skate

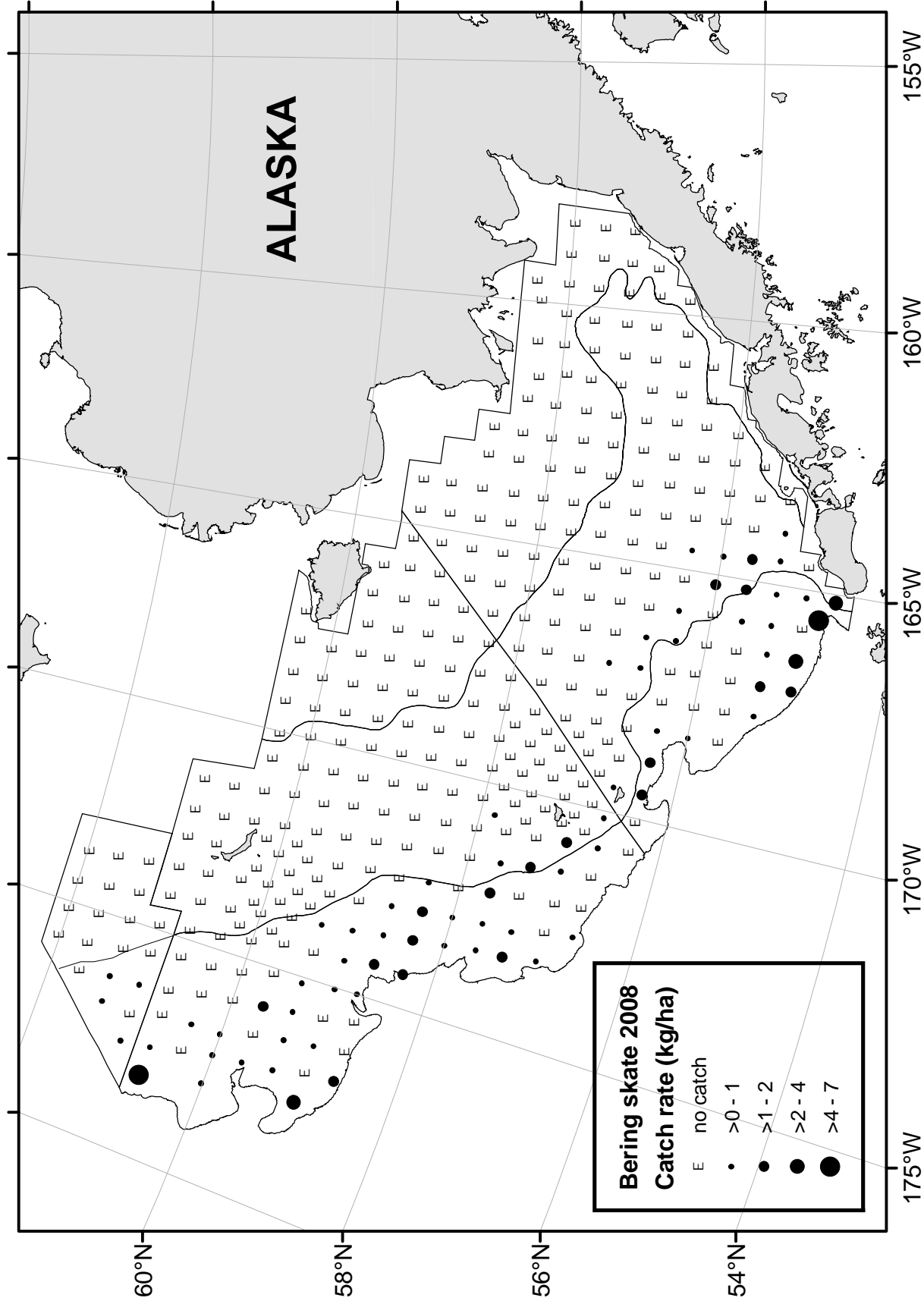


Figure 32. -- Distribution and relative abundance (kg/ha) of **Bering skate** (*Bathyraja interrupta*) for the 2008 eastern Bering Sea bottom trawl survey.

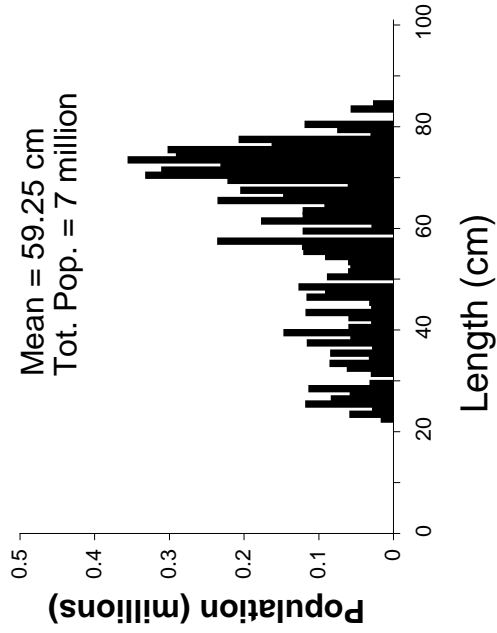
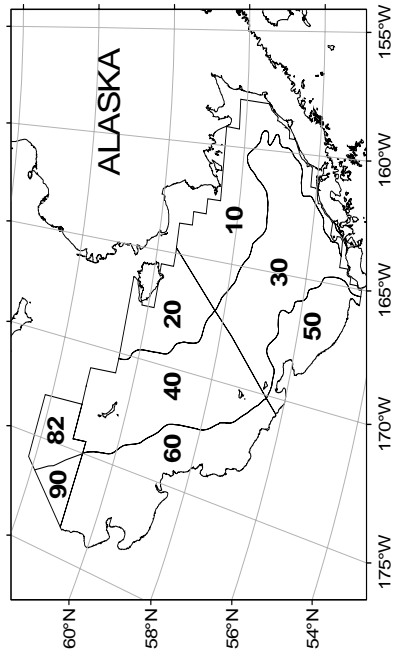
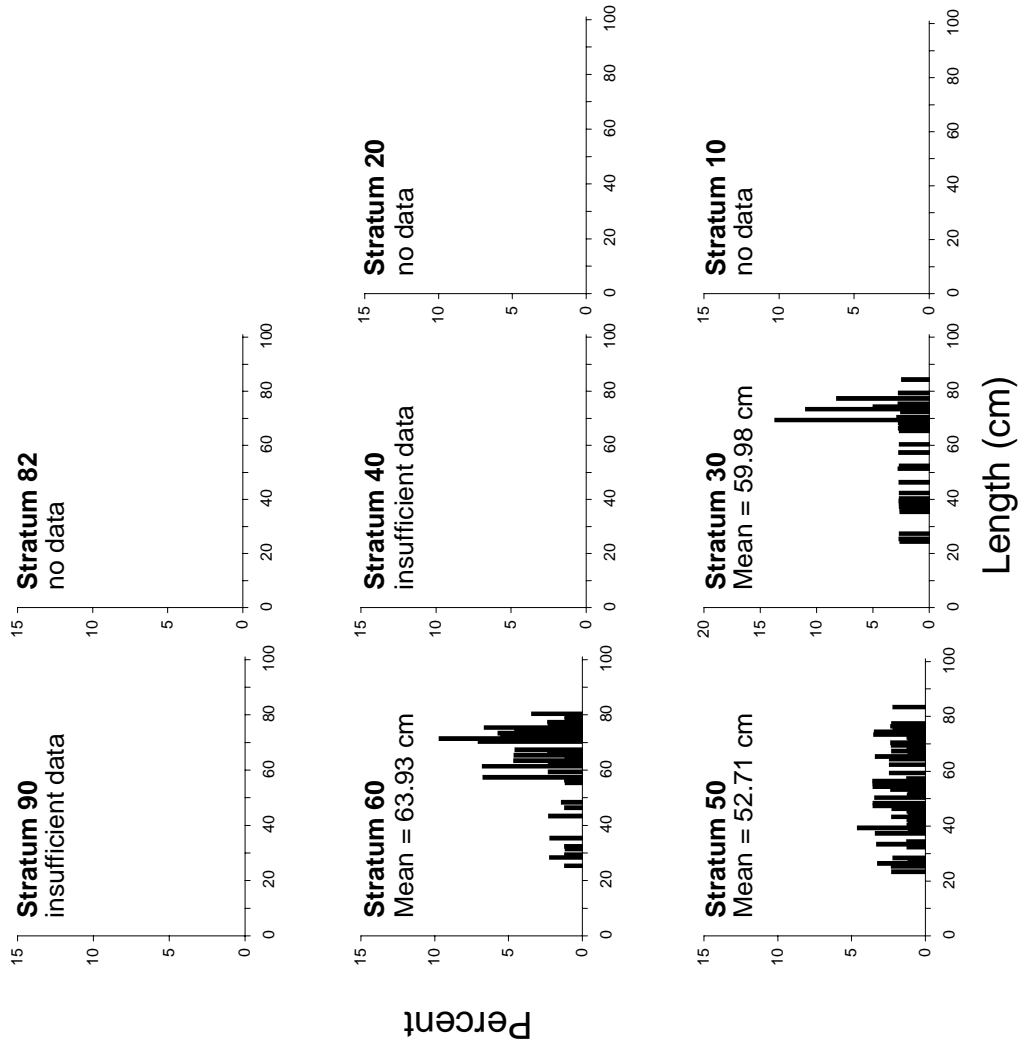


Figure 33. -- Estimated relative size distributions (sexes combined) of **Bering skate** (*Bathyraja interrupta*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 20a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Bering skate** (*Bathyraja interrupta*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31	0.17	0.00E+00	1,640	0.00E+00	452	2,827	69	13	13	13
32	0.07	0.00E+00	65	0.00E+00	0	219	8	1	1	1
41	0.04	0.00E+00	278	0.00E+00	0	725	44	2	2	2
42	0.10	0.00E+00	232	0.00E+00	0	545	31	3	3	3
43	0.00	0.00E+00	0	0.00E+00	0	0	22	0	0	0
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0	0
Subtotal	0.10	0.00E+00	2,215	0.00E+00	905	3,526	186	19	19	19
50	0.71	0.00E+00	2,737	0.00E+00	470	5,005	26	14	14	14
61	0.53	0.00E+00	4,674	0.00E+00	2,824	6,523	60	37	37	35
62	0.06	0.00E+00	39	0.00E+00	0	136	7	1	1	1
90	0.24	0.00E+00	277	0.00E+00	23	532	8	4	4	4
Subtotal	0.53	0.00E+00	7,728	0.00E+00	4,829	10,626	101	56	56	54
Total	0.20	0.00E+00	9,943	0.00E+00	6,821	13,065	375	150	150	73

*Differences in sums of estimates and totals are due to rounding.

Table 20b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Bering skate** (*Bathyraja interrupta*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31	0.11	0.00E+00	1,056,227	0.00E+00	289,852	1,822,603	69	13	13	13
32	0.03	0.00E+00	22,731	0.00E+00	0	76,489	8	1	1	1
41	0.02	0.00E+00	116,714	0.00E+00	0	301,869	44	2	2	2
42	0.05	0.00E+00	108,447	0.00E+00	0	249,033	31	3	3	3
43	0.00	0.00E+00	0	0.00E+00	0	0	22	0	0	0
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0	0
Subtotal	0.06	0.00E+00	1,304,119	0.00E+00	502,913	2,105,325	186	19	19	19
50	0.67	0.00E+00	2,581,168	0.00E+00	532,433	4,629,903	26	14	14	14
61	0.29	0.00E+00	2,594,827	0.00E+00	1,408,977	3,780,677	60	37	37	35
62	0.03	0.00E+00	17,604	0.00E+00	0	60,681	7	1	1	1
90	0.10	0.00E+00	112,035	0.00E+00	11,874	212,197	8	4	4	4
Subtotal	0.37	0.00E+00	5,305,634	0.00E+00	2,973,451	7,637,817	101	56	56	54
Total	0.13	0.00E+00	6,609,753	0.00E+00	4,191,119	9,028,387	375	150	150	73

*Differences in sums of estimates and totals are due to rounding.

Alaska skate

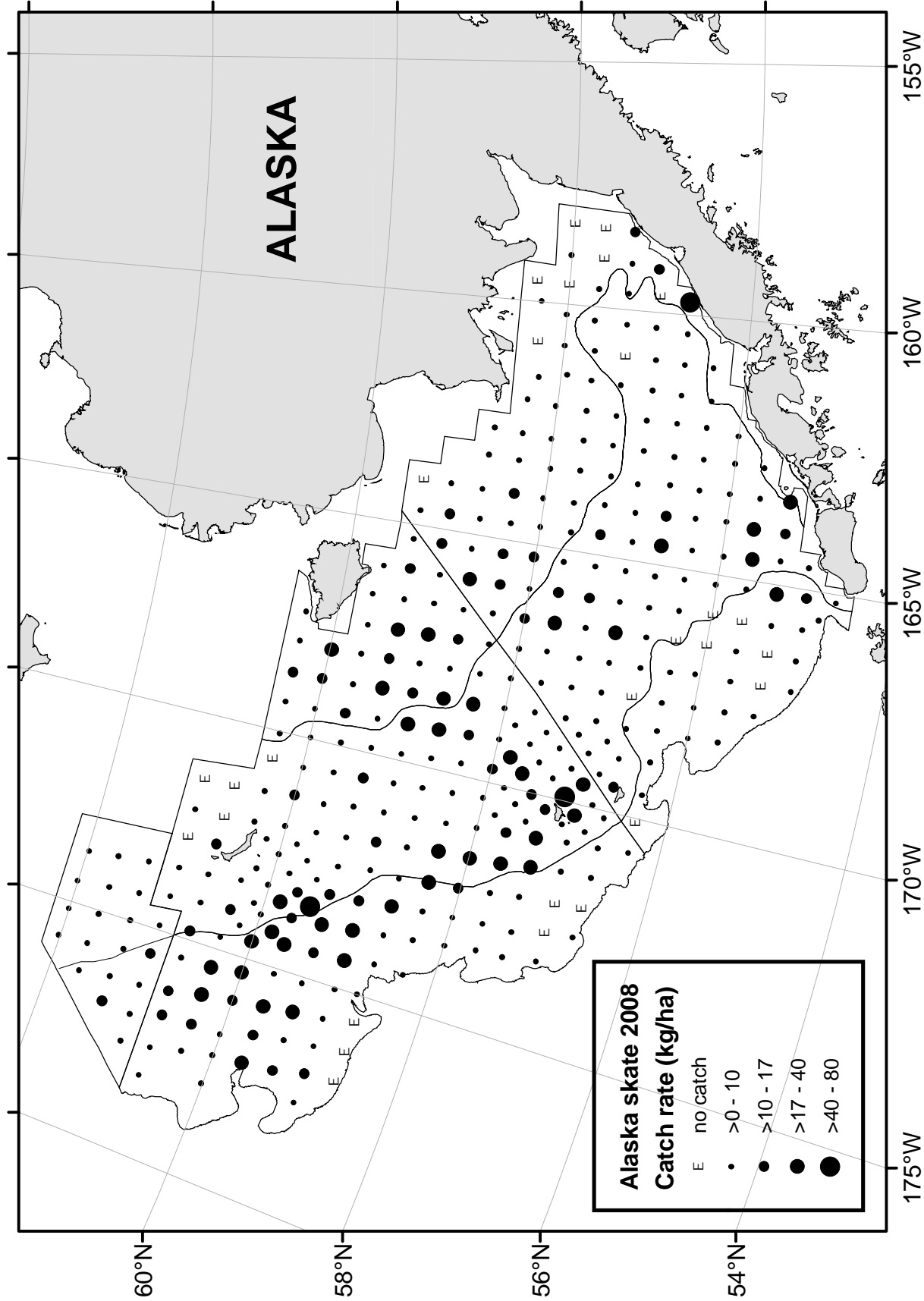


Figure 34. -- Distribution and relative abundance (kg/ha) of Alaska skate (*Bathyraja parmifera*) for the 2008 eastern Bering Sea bottom trawl survey.

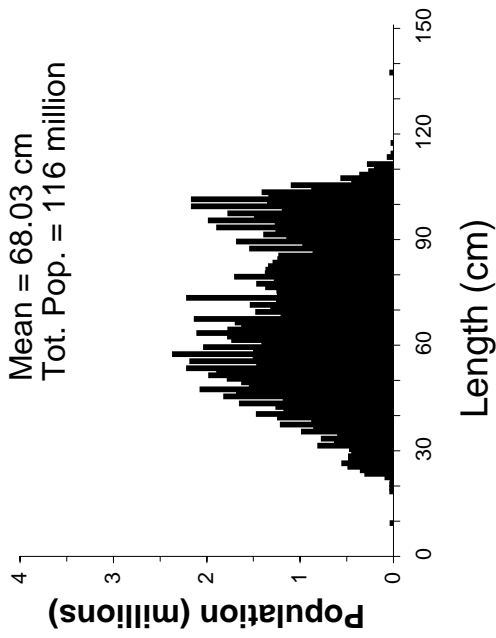
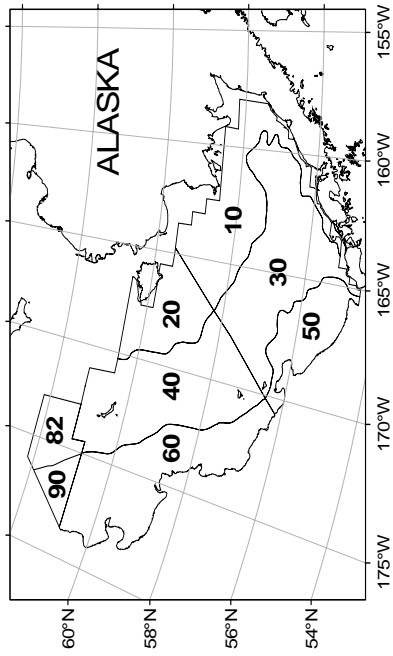
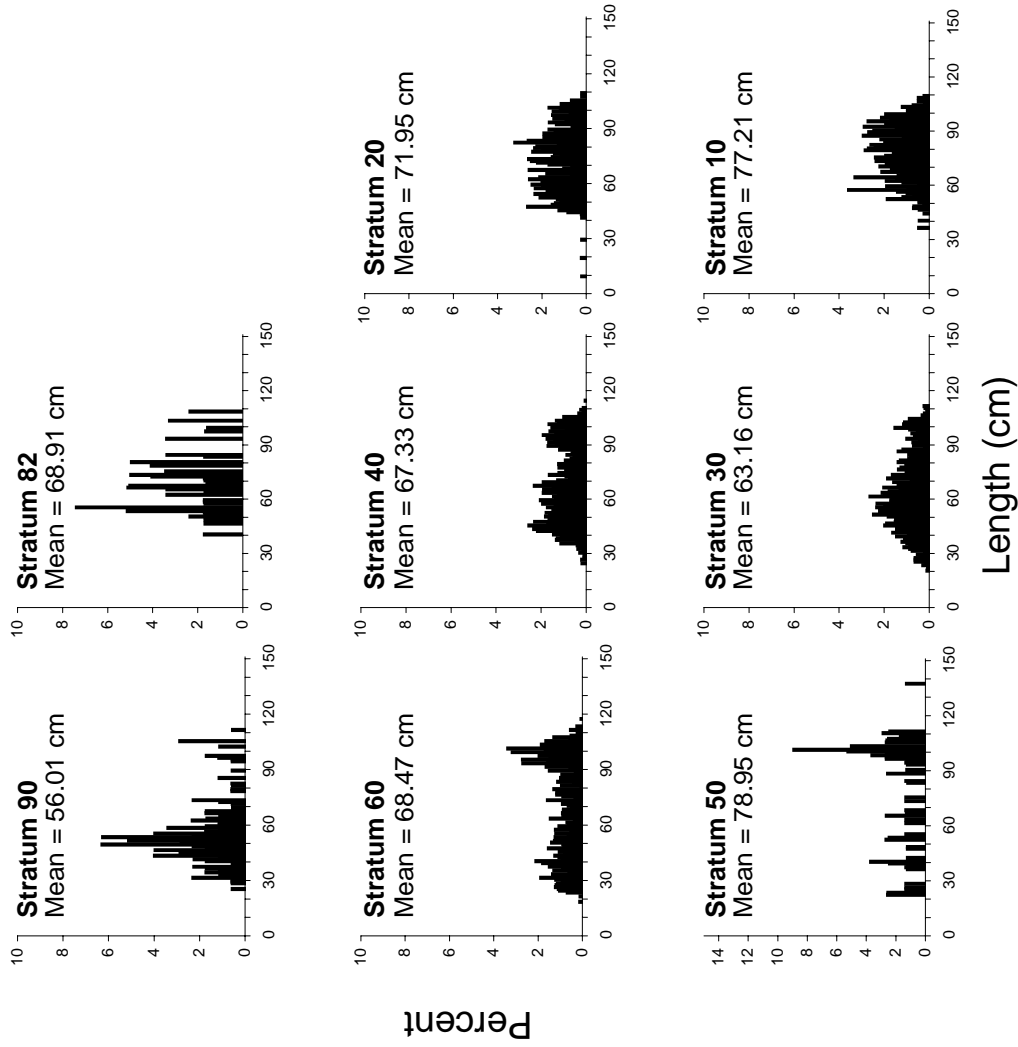


Figure 35. -- Estimated relative size distributions (sexes combined) of Alaska skate (*Bathyraja parmifera*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 21a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Alaska skate** (*Bathyraja parmifera*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	6.55	1.42E+00	51,042	1.11E+04	28,686	73,399	57	49	49	49
20	10.41	1.27E+00	42,692	5.19E+03	32,090	53,293	31	31	31	31
Subtotal	7.88	1.03E+00	93,734	1.22E+04	69,294	118,174	88	80	80	80
31	6.32	7.59E-01	59,718	7.17E+03	45,369	74,066	69	65	65	65
32	3.95	1.89E+00	3,470	1.66E+03	0	7,385	8	8	8	8
41	8.58	9.67E-01	53,808	6.07E+03	41,550	66,065	44	39	38	38
42	9.96	1.85E+00	23,925	4.43E+03	14,857	32,992	31	31	31	31
43	8.75	2.09E+00	18,462	4.41E+03	9,262	27,662	22	22	22	22
82	3.07	4.59E-01	6,339	9.47E+02	4,254	8,424	12	12	12	12
Subtotal	7.15	4.94E-01	165,722	1.14E+04	143,059	188,384	186	177	176	176
50	2.93	8.05E-01	11,355	3.12E+03	4,923	17,787	26	21	21	21
61	8.18	1.20E+00	72,111	1.06E+04	50,737	93,485	60	54	54	54
62	15.79	2.57E+00	10,151	1.65E+03	6,115	14,187	7	7	7	7
90	7.83	1.55E+00	9,055	1.80E+03	4,808	13,302	8	8	8	8
Subtotal	7.08	7.79E-01	102,672	1.13E+04	80,085	125,259	101	90	90	90
Total	7.31	4.08E-01	362,127	2.02E+04	322,140	402,115	375	694	692	346

*Differences in sums of estimates and totals are due to rounding.

Table 21b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Alaska skate** (*Bathyraja parmifera*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper			
10	1.68	3.06E-01	13,061,414	2.38E+06	8,244,481	17,878,347	57	49	49
20	3.14	4.07E-01	12,863,383	1.67E+06	9,450,186	16,276,581	31	31	31
Subtotal	2.18	2.45E-01	25,924,797	2.91E+06	20,102,533	31,747,062	88	80	80
31	2.58	3.42E-01	24,417,686	3.23E+06	17,957,896	30,877,476	69	65	65
32	1.55	4.34E-01	1,358,715	3.81E+05	458,363	2,259,067	8	8	8
41	2.77	3.27E-01	17,340,087	2.05E+06	13,195,312	21,484,862	44	39	38
42	2.86	4.58E-01	6,874,825	1.10E+06	4,625,876	9,123,774	31	31	31
43	3.58	6.80E-01	7,554,725	1.44E+06	4,559,433	10,550,017	22	22	22
82	1.01	2.23E-01	2,079,544	4.61E+05	1,064,539	3,094,548	12	12	12
Subtotal	2.57	1.84E-01	59,625,582	4.27E+06	51,163,070	68,088,093	186	177	176
50	0.59	1.85E-01	2,289,785	7.19E+05	807,725	3,771,846	26	21	21
61	2.29	3.07E-01	20,187,068	2.70E+06	14,724,470	25,649,666	60	54	54
62	4.60	5.53E-01	2,954,298	3.55E+05	2,084,656	3,823,939	7	7	7
90	4.26	6.64E-01	4,931,085	7.68E+05	3,114,962	6,747,209	8	8	8
Subtotal	2.10	2.02E-01	30,362,237	2.92E+06	24,517,796	36,206,677	101	90	90
Total	2.34	1.20E-01	115,912,616	5.94E+06	104,151,832	127,673,399	375	694	692
									346

*Differences in sums of estimates and totals are due to rounding.

Warty sculpin

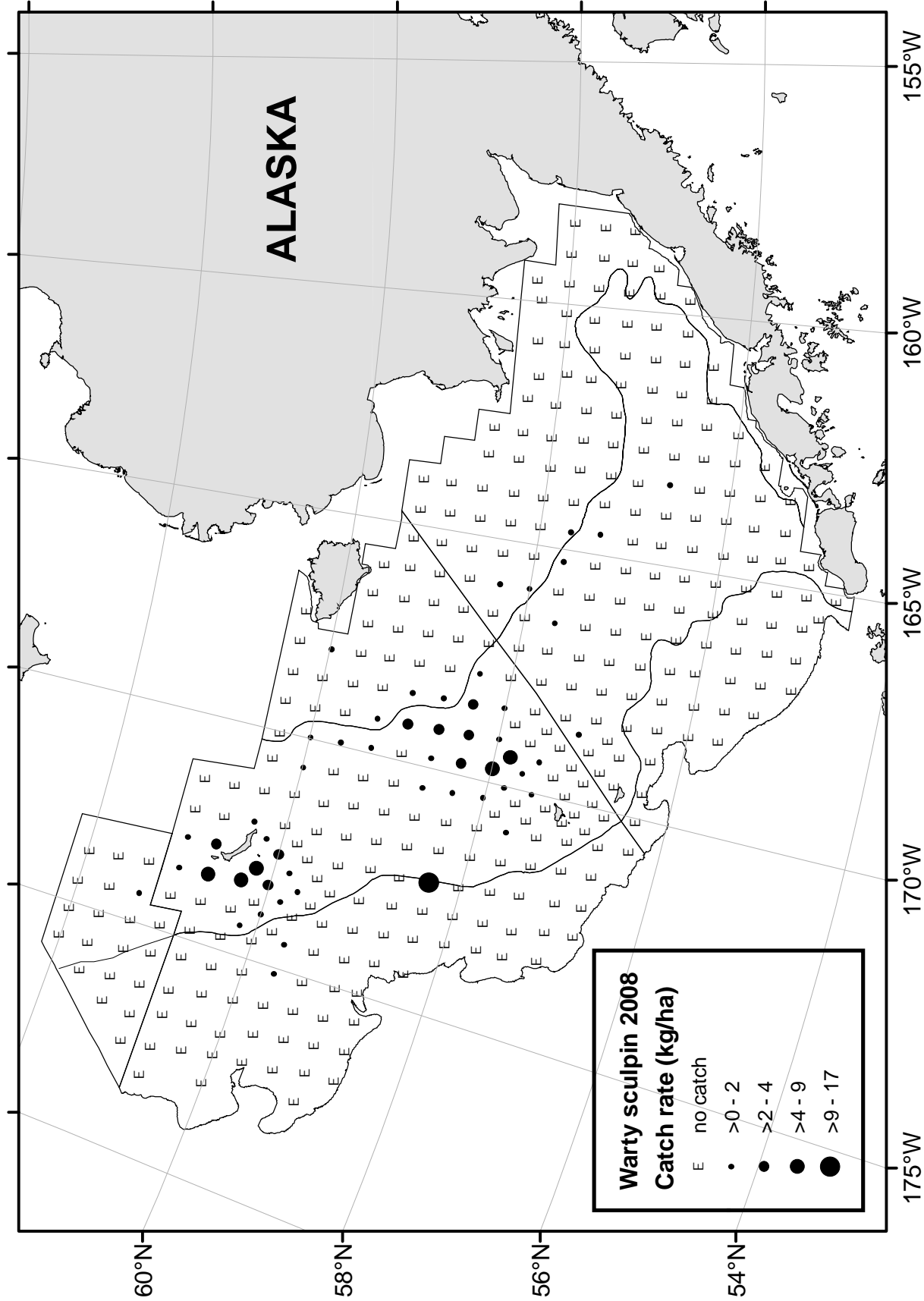


Figure 36. -- Distribution and relative abundance (kg/ha) of warty sculpin (*Myoxocephalus verrucosus*) for the 2008 eastern Bering Sea bottom trawl survey.

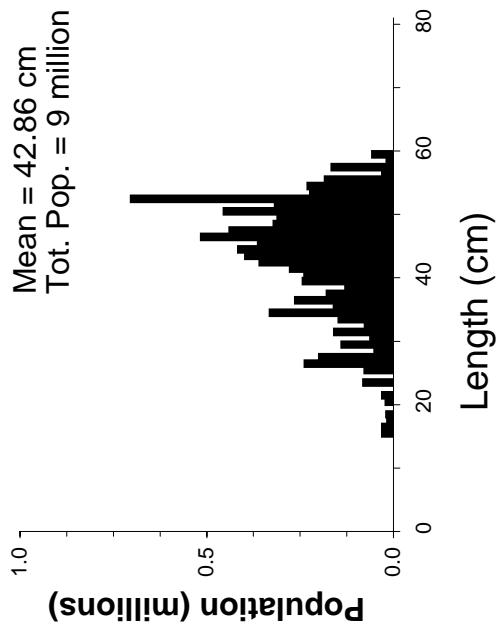
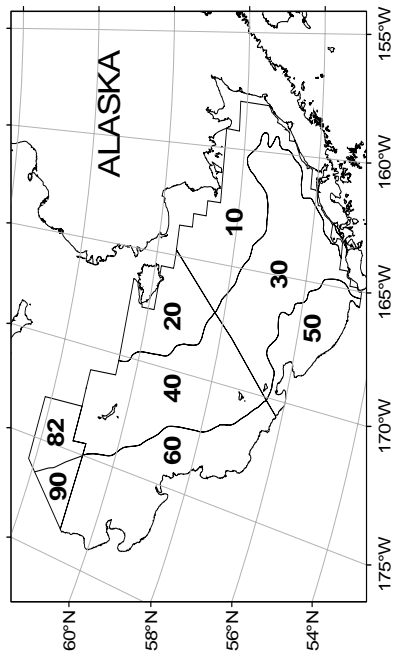
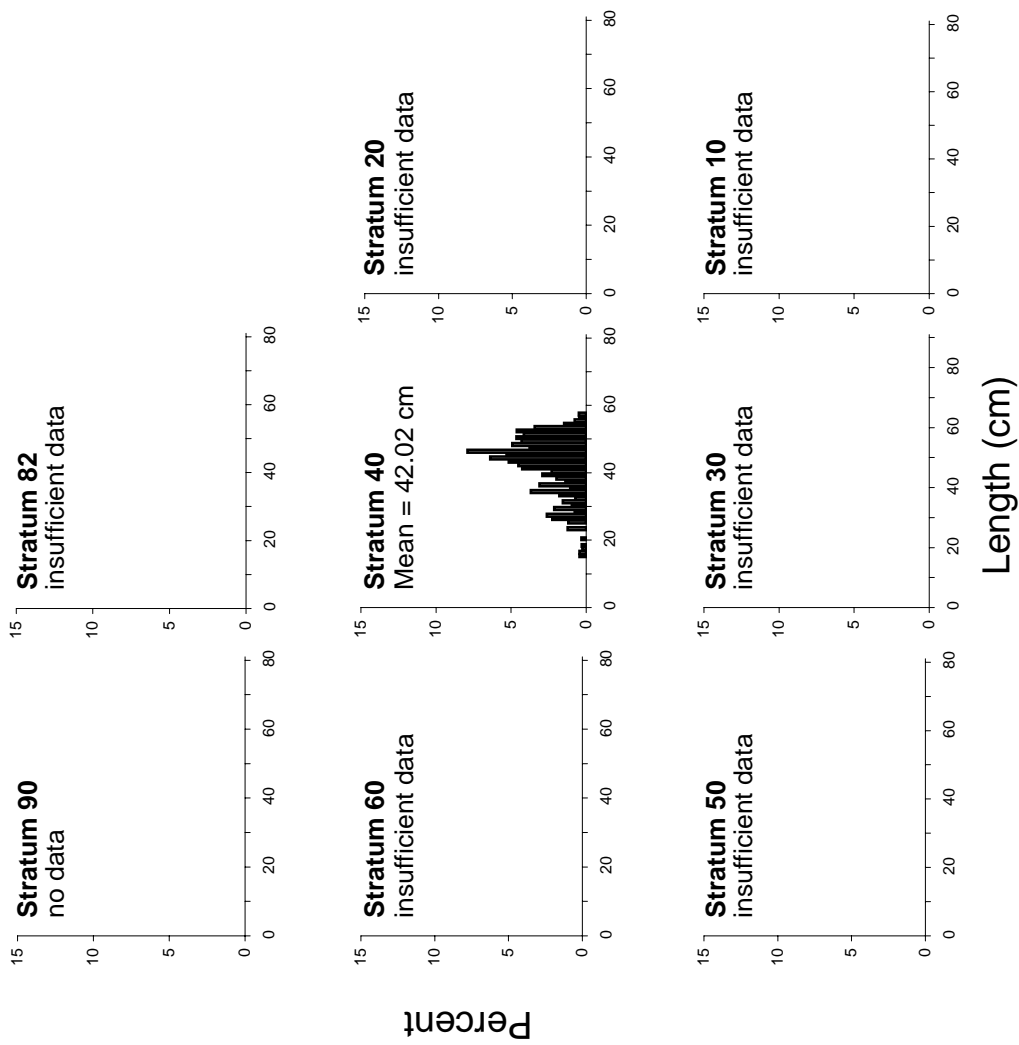


Figure 37. -- Estimated relative size distributions (sexes combined) of warty sculpin (*Myoxocephalus verrucosus*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 22a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **warty sculpin** (*Myoxocephalus verrucosus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.03	2.27E-02	235	1.77E+02	0	592	57	3	3	3
20	0.07	4.22E-02	288	1.73E+02	0	642	31	4	4	4
Subtotal	0.04	2.08E-02	523	2.48E+02	27	1,018	88	7	7	7
31	0.02	1.00E-02	177	9.45E+01	0	366	69	4	4	4
32	0.02	2.11E-02	19	1.85E+01	0	62	8	1	1	1
41	0.76	2.53E-01	4,791	1.58E+03	1,588	7,994	44	17	17	17
42	0.41	1.81E-01	981	4.34E+02	94	1,868	31	10	10	10
43	1.03	3.70E-01	2,176	7.82E+02	545	3,807	22	11	11	11
82	0.02	1.90E-02	39	3.92E+01	0	126	12	1	1	1
Subtotal	0.35	7.86E-02	8,182	1.82E+03	4,537	11,827	186	44	44	44
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.29	2.76E-01	2,599	2.44E+03	0	7,522	60	2	2	2
62	0.15	1.46E-01	94	9.39E+01	0	335	7	1	1	1
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.19	1.68E-01	2,693	2.44E+03	0	7,568	101	3	3	3
Total	0.23	6.16E-02	11,397	3.05E+03	5,351	17,444	375	108	108	54

* Differences in sums of estimates and totals are due to rounding.

Table 22b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **warty sculpin** (*Myoxocephalus verrucosus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.03	2.10E-02	243,430	1.64E+05	0	574,543	57	3	3	3
20	0.08	4.38E-02	325,590	1.80E+05	0	692,763	31	4	4	4
Subtotal	0.05	2.04E-02	569,020	2.43E+05	82,895	1,055,144	88	7	7	7
31	0.04	2.02E-02	351,347	1.91E+05	0	733,799	69	4	4	4
32	0.03	2.51E-02	22,040	2.20E+04	0	74,164	8	1	1	1
41	0.61	1.91E-01	3,849,029	1.20E+06	1,426,496	6,271,561	44	17	17	17
42	0.31	1.06E-01	739,260	2.53E+05	221,146	1,257,373	31	10	10	10
43	0.91	3.37E-01	1,926,236	7.11E+05	443,663	3,408,810	22	11	11	11
82	0.02	1.61E-02	33,258	3.33E+04	0	106,459	12	1	1	1
Subtotal	0.30	6.17E-02	6,921,170	1.43E+06	4,061,580	9,780,760	186	44	44	44
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.13	1.21E-01	1,126,049	1.07E+06	0	3,288,737	60	2	2	2
62	0.11	1.11E-01	71,262	7.13E+04	0	254,475	7	1	1	1
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.08	7.40E-02	1,197,310	1.07E+06	0	3,342,267	101	3	3	3
Total	0.18	3.64E-02	8,687,500	1.80E+06	5,116,026	12,258,973	375	108	108	54

*Differences in sums of estimates and totals are due to rounding.

Great sculpin

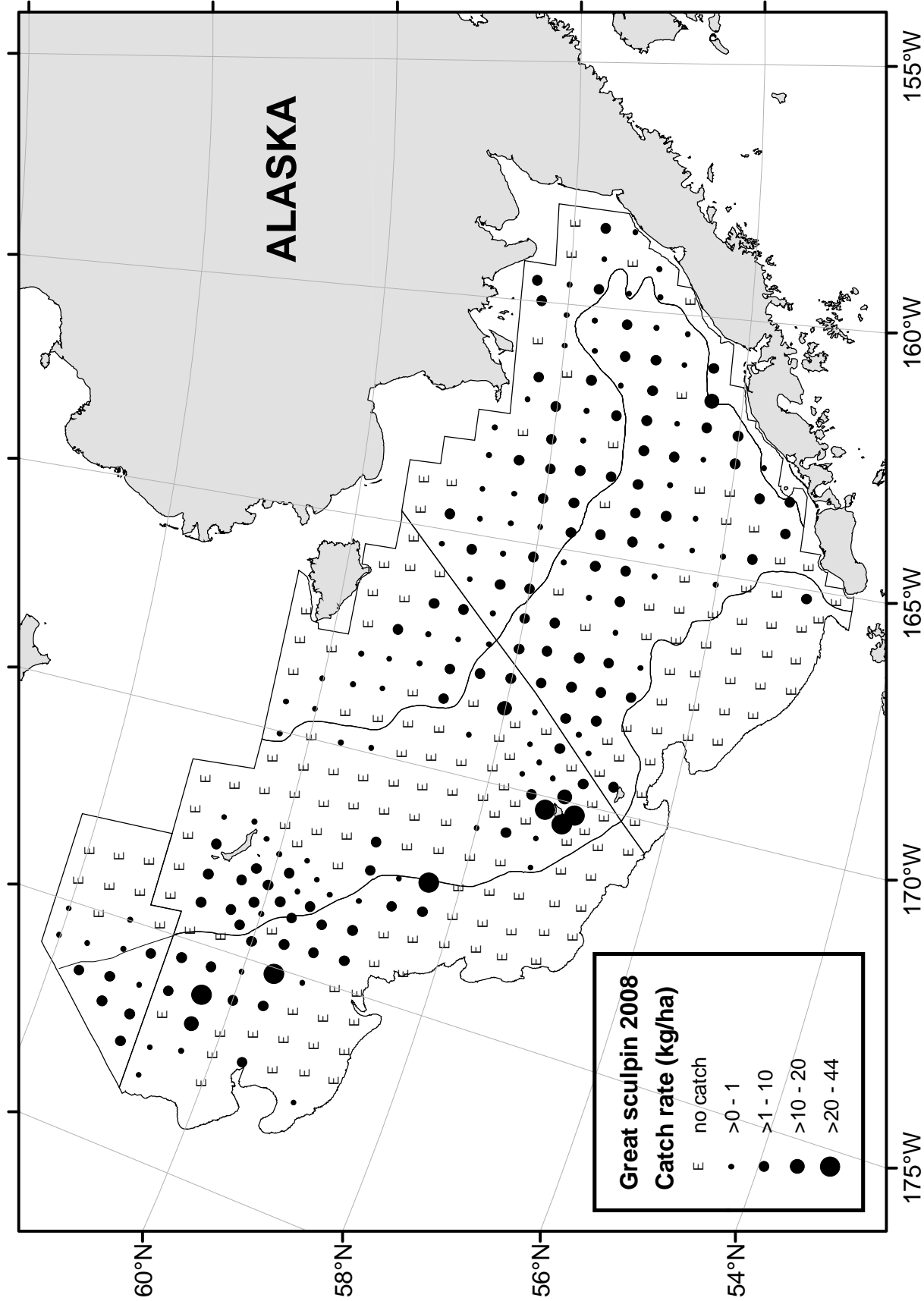


Figure 38. -- Distribution and relative abundance (kg/ha) of **great sculpin** (*Myoxocephalus polyacanthocephalus*) for the 2008 eastern Bering Sea bottom trawl survey.

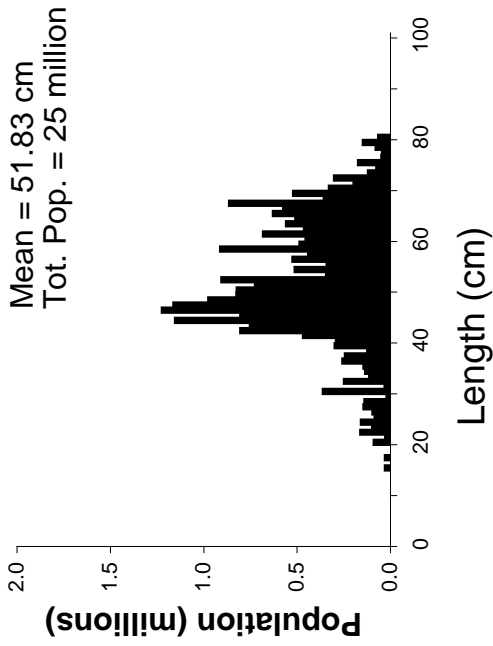
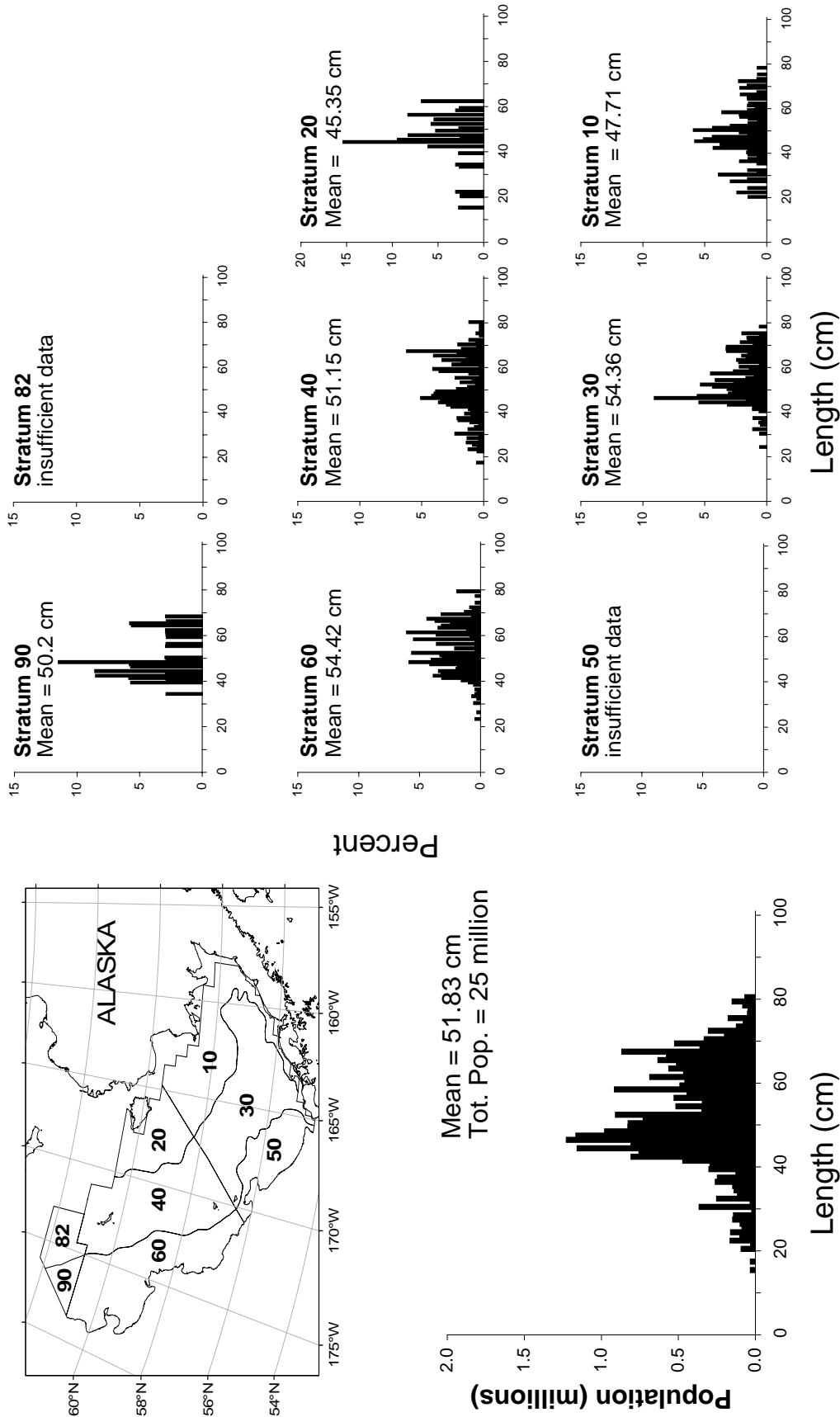


Figure 39. -- Estimated relative size distributions (sexes combined) of **great sculpin** (*Myoxocephalus polyacanthocephalus*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 23a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **great sculpin** (*Myoxocephalus polyacanthocephalus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	1.33	2.81E-01	10,323	2.19E+03	5,898	14,748	57	46	46	46
20	0.47	1.29E-01	1,948	5.29E+02	868	3,029	31	17	17	17
Subtotal	1.03	1.89E-01	12,271	2.25E+03	7,766	16,776	88	63	63	63
31	1.80	2.82E-01	17,048	2.67E+03	11,711	22,384	69	51	51	48
32	1.08	4.65E-01	946	4.08E+02	0	1,944	8	5	5	5
41	0.43	1.66E-01	2,693	1.04E+03	585	4,801	44	12	12	12
42	4.16	1.70E+00	9,997	4.08E+03	1,656	18,338	31	16	16	16
43	1.51	3.98E-01	3,177	8.40E+02	1,431	4,924	22	17	17	17
82	0.04	2.08E-02	73	4.30E+01	0	168	12	4	4	4
Subtotal	1.46	2.19E-01	33,935	5.07E+03	23,792	44,077	186	105	105	102
50	0.06	6.05E-02	235	2.35E+02	0	718	26	1	1	1
61	2.19	8.54E-01	19,265	7.53E+03	4,054	34,477	60	22	22	22
62	3.29	1.33E+00	2,113	8.56E+02	19	4,206	7	5	5	5
90	2.08	6.23E-01	2,404	7.21E+02	640	4,169	8	8	8	8
Subtotal	1.66	5.25E-01	24,017	7.61E+03	8,791	39,243	101	36	36	36
Total	1.42	1.90E-01	70,223	9.42E+03	51,569	88,876	375	408	408	201

*Differences in sums of estimates and totals are due to rounding.

Table 23b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **great sculpin** (*Myoxocephalus polyacanthocephalus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.55	7.44E-02	4,271,022	5.79E+05	3,100,296	5,441,748	57	46	46	46
20	0.26	5.85E-02	1,067,776	2.40E+05	577,774	1,557,778	31	17	17	17
Subtotal	0.45	5.27E-02	5,338,798	6.27E+05	4,084,768	6,592,828	88	63	63	63
31	0.56	7.89E-02	5,305,899	7.46E+05	3,814,179	6,797,618	69	51	51	48
32	0.36	1.43E-01	320,183	1.25E+05	13,692	626,673	8	5	5	5
41	0.20	7.43E-02	1,232,421	4.66E+05	291,036	2,173,806	44	12	12	12
42	1.03	4.04E-01	2,468,599	9.69E+05	486,744	4,450,455	31	16	16	16
43	0.94	2.73E-01	1,993,351	5.76E+05	795,822	3,190,880	22	17	17	17
82	0.07	2.92E-02	141,489	6.03E+04	8,687	274,292	12	4	4	4
Subtotal	0.49	6.20E-02	11,461,942	1.44E+06	8,589,120	14,334,763	186	105	105	102
50	0.01	7.98E-03	30,960	3.10E+04	0	94,738	26	1	1	1
61	0.68	2.53E-01	6,028,167	2.23E+06	1,526,061	10,530,274	60	22	22	22
62	1.31	4.40E-01	840,620	2.83E+05	148,019	1,533,222	7	5	5	5
90	0.86	2.24E-01	990,018	2.59E+05	355,794	1,624,242	8	8	8	8
Subtotal	0.54	1.56E-01	7,889,766	2.26E+06	3,368,382	12,411,150	101	36	36	36
Total	0.50	5.55E-02	24,690,506	2.75E+06	19,243,831	30,137,180	375	408	408	201

*Differences in sums of estimates and totals are due to rounding.

Plain sculpin

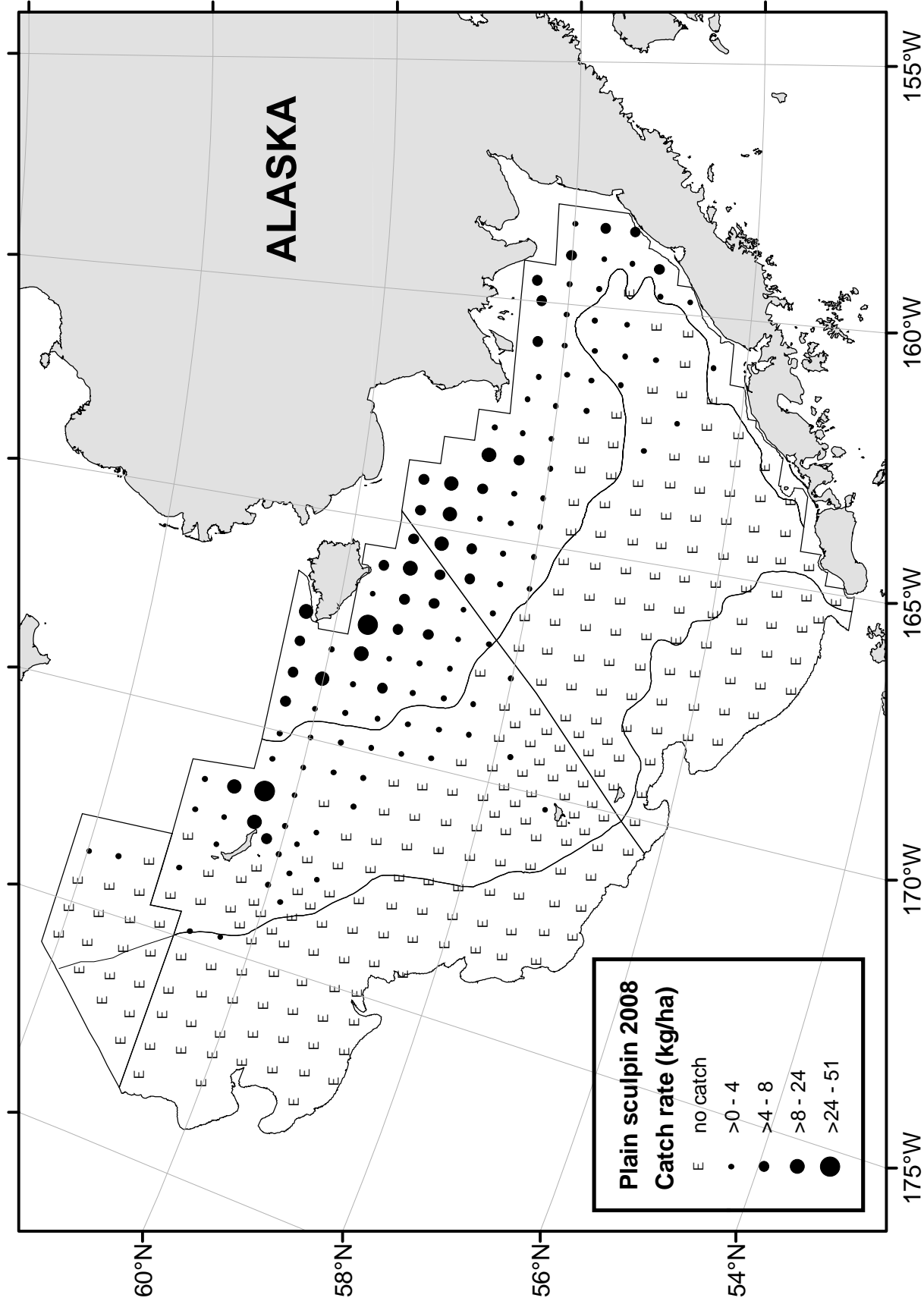


Figure 40. -- Distribution and relative abundance (kg/ha) of plain sculpin (*Myoxocephalus jaok*) for the 2008 eastern Bering Sea bottom trawl survey.

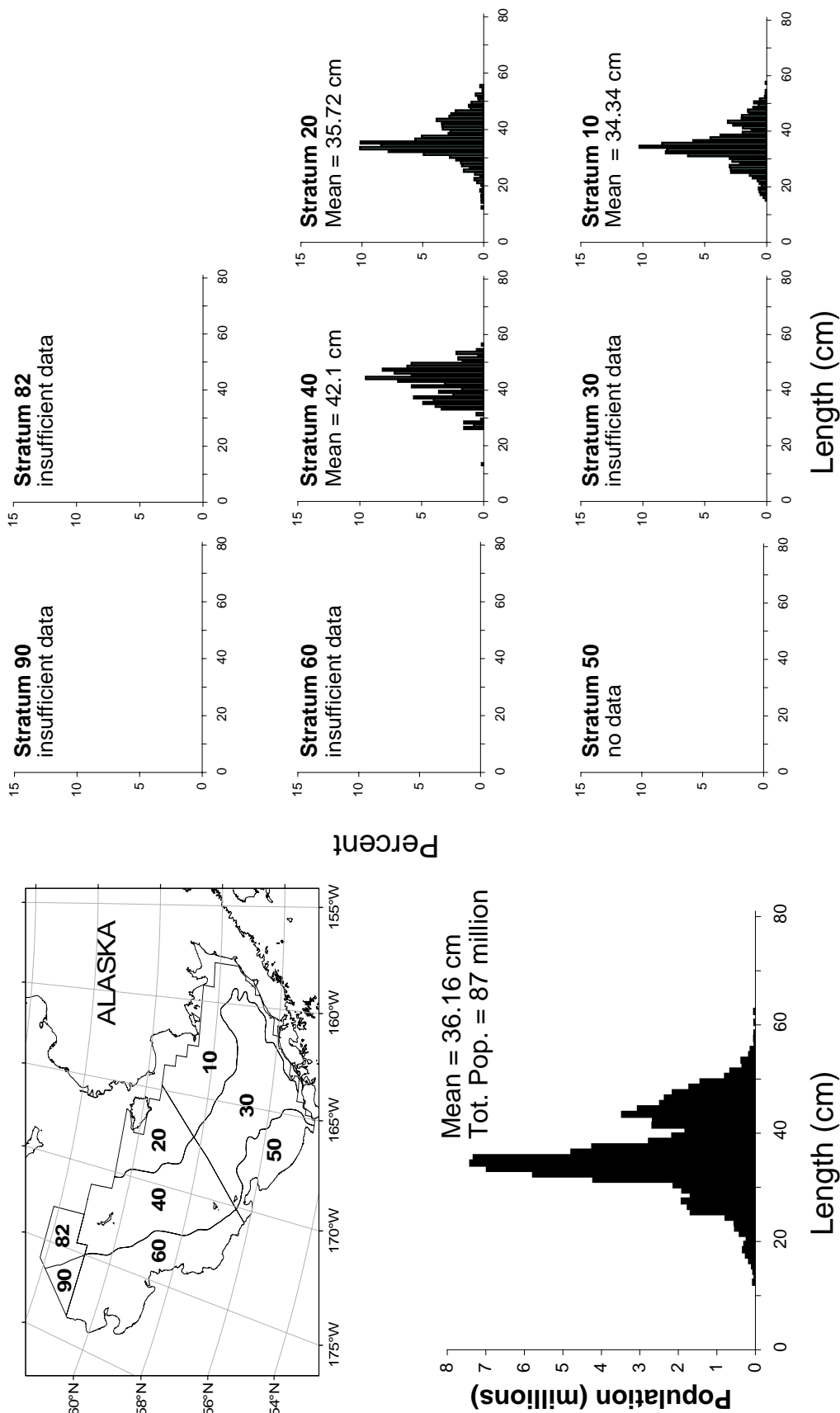


Figure 41. -- Estimated relative size distributions (sexes combined) of **plain sculpin** (*Myoxocephalus jaok*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 24a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **plain sculpin** (*Myoxocephalus jaok*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	2.81	4.07E-01	21,885	3.17E+03	15,485	28,284	57	47	47	47
20	4.89	8.50E-01	20,050	3.49E+03	12,926	27,174	31	31	31	31
Subtotal	3.53	3.96E-01	41,935	4.71E+03	32,511	51,358	88	78	78	78
31	0.04	1.69E-02	411	1.59E+02	93	730	69	8	8	8
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	1.90	1.16E+00	11,903	7.25E+03	0	26,552	44	24	24	24
42	0.10	9.35E-02	245	2.25E+02	0	704	31	2	2	2
43	1.00	4.71E-01	2,111	9.94E+02	37	4,186	22	10	10	10
82	0.08	6.83E-02	161	1.41E+02	0	472	12	2	2	2
Subtotal	0.64	3.16E-01	14,832	7.32E+03	34	29,631	186	46	46	46
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0	0
62	0.26	2.61E-01	168	1.68E+02	0	579	7	1	1	1
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.01	1.16E-02	168	1.68E+02	0	504	101	1	1	1
Total	1.15	1.76E-01	56,935	8.71E+03	39,517	74,353	375	250	250	125

*Differences in sums of estimates and totals are due to rounding.

Table 24b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **plain sculpin** (*Myoxocephalus jaok*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum (no./ha)	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit Lower	95% Confidence limit Upper	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
10	5.13	8.72E-01	39,977,918	6.79E+06	26,248,849	53,706,986	57	47	47	47
20	7.88	1.55E+00	32,321,223	6.36E+06	19,338,337	45,304,108	31	31	31	31
Subtotal	6.08	7.83E-01	72,299,140	9.30E+06	53,690,447	90,907,833	88	78	78	78
31	0.04	1.53E-02	366,901	1.45E+05	77,439	656,363	69	8	8	8
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	1.91	1.23E+00	11,980,211	7.72E+06	0	27,577,951	44	24	24	24
42	0.07	6.56E-02	173,605	1.57E+05	0	495,685	31	2	2	2
43	0.84	3.53E-01	1,763,509	7.45E+05	209,014	3,318,003	22	10	10	10
82	0.05	3.75E-02	107,619	7.74E+04	0	277,965	12	2	2	2
Subtotal	0.62	3.35E-01	14,391,844	7.76E+06	0	30,068,867	186	46	46	46
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0	0
62	0.06	5.82E-02	37,401	3.74E+04	0	128,921	7	1	1	1
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.00	2.58E-03	37,401	3.74E+04	0	112,203	101	1	1	1
Total	1.75	2.44E-01	86,728,385	1.21E+07	62,500,774	110,955,996	375	250	250	125

*Differences in sums of estimates and totals are due to rounding.

Bigmouth sculpin

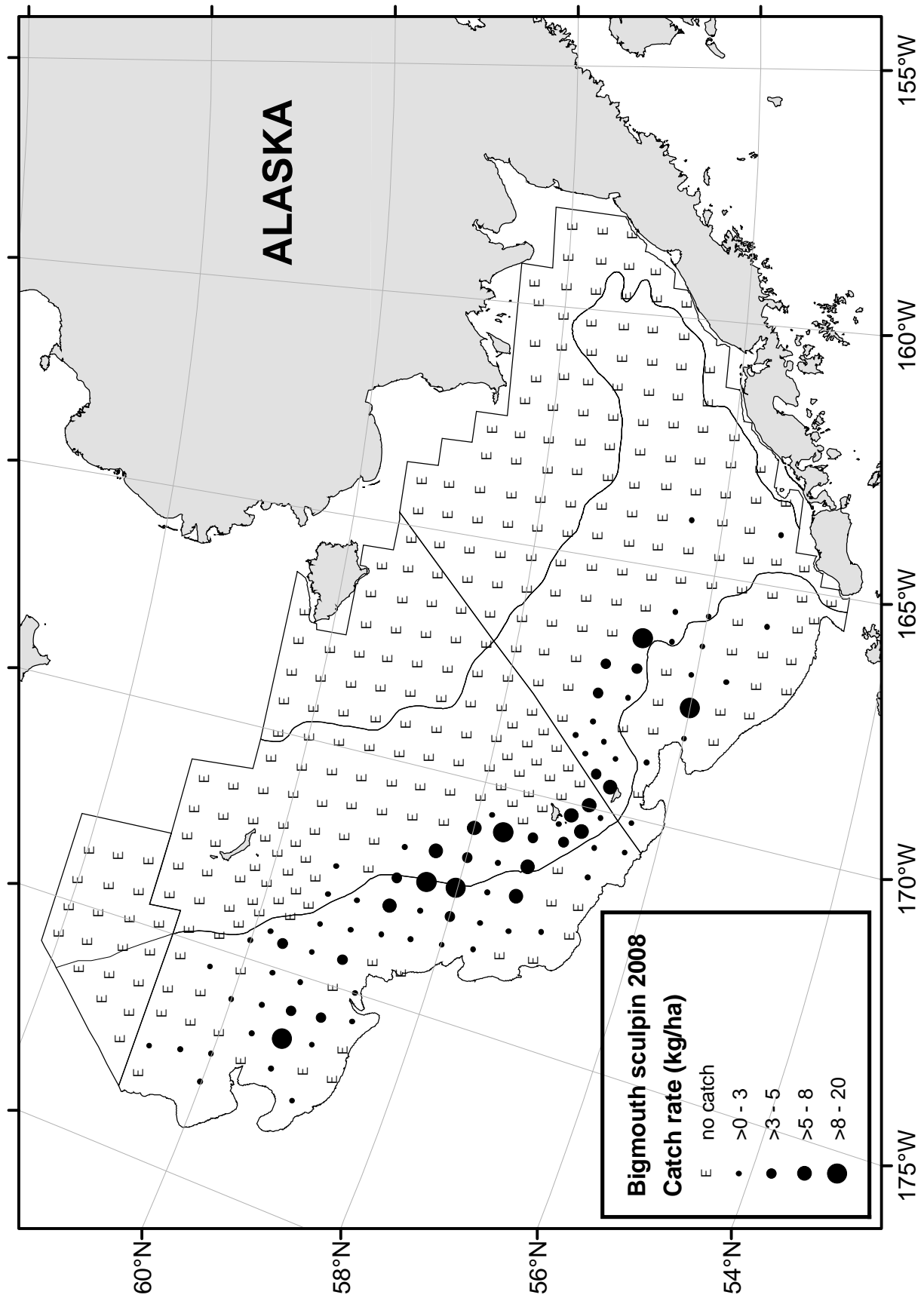


Figure 42. -- Distribution and relative abundance (kg/ha) of bigmouth sculpin (*Hemiripterus bolini*) for the 2008 eastern Bering Sea bottom trawl survey.

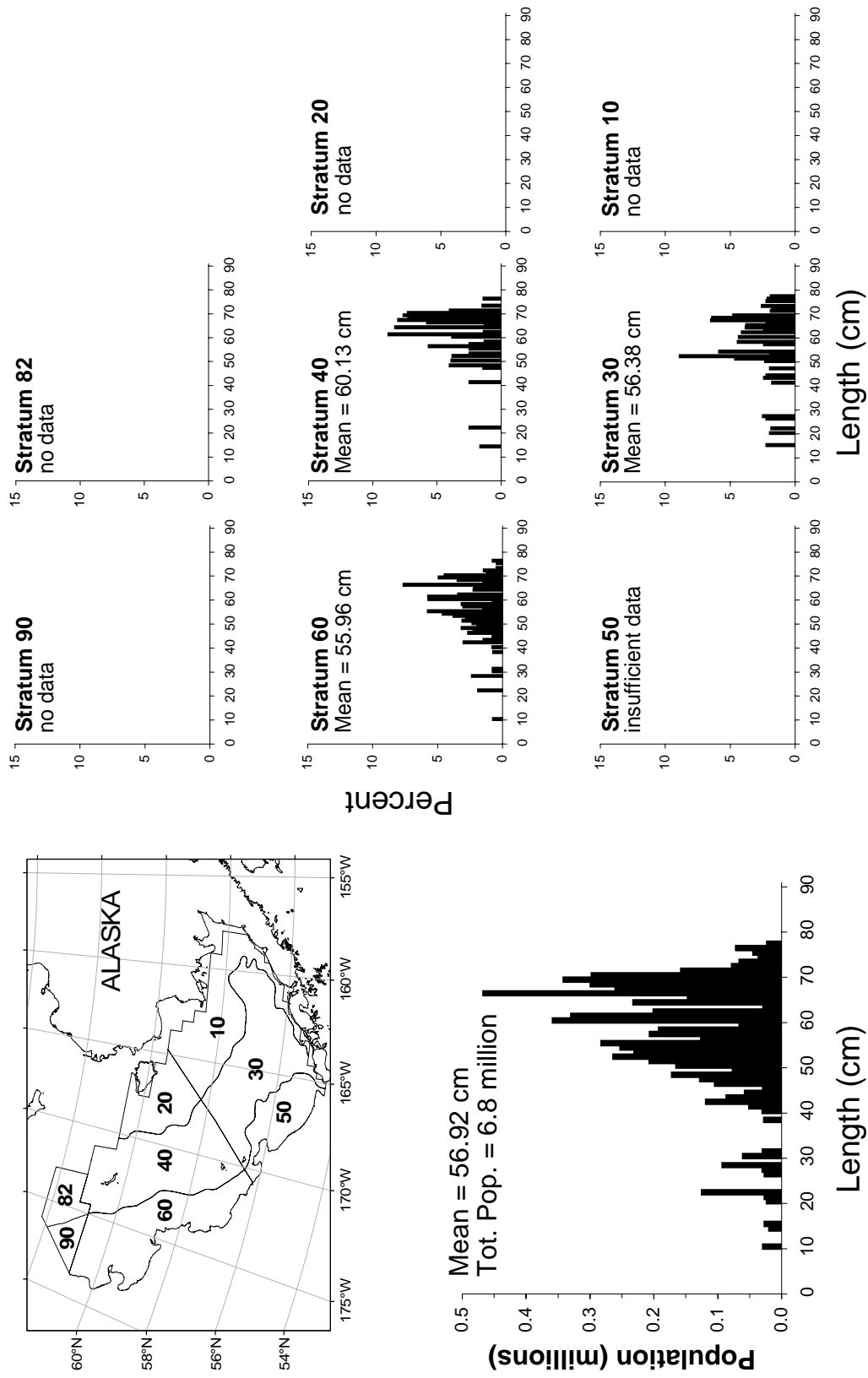


Figure 43. -- Estimated relative size distributions (sexes combined) of **bigmouth sculpin** (*Hemitripterus bolini*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 25a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **bigmouth sculpin** (*Hemitripterus bolini*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31	0.34	1.64E-01	3,249	1.55E+03	151	6,346	69	10	10	10
32	2.54	7.58E-01	2,225	6.65E+02	652	3,797	8	7	7	7
41	0.38	1.90E-01	2,403	1.19E+03	0	4,815	44	5	5	5
42	1.53	5.08E-01	3,668	1.22E+03	1,178	6,157	31	10	10	10
43	0.17	1.22E-01	355	2.58E+02	0	890	22	2	2	2
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0	0
Subtotal	0.51	1.04E-01	11,898	2.41E+03	7,122	16,674	186	34	34	34
50	0.57	3.60E-01	2,204	1.40E+03	0	5,084	26	8	8	8
61	1.80	3.93E-01	15,865	3.47E+03	8,858	22,873	60	39	39	38
62	1.37	4.83E-01	878	3.10E+02	118	1,637	7	5	5	5
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	1.31	2.59E-01	18,947	3.75E+03	11,444	26,450	101	52	52	51
Total	0.62	9.00E-02	30,846	4.46E+03	22,015	39,676	375	172	172	85

*Differences in sums of estimates and totals are due to rounding.

Table 25b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **bigmouth sculpin** (*Hemitripterus bolini*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31	0.08	3.61E-02	748,301	3.41E+05	65,949	1,430,654	69	10	10	10
32	0.53	1.35E-01	462,053	1.19E+05	181,750	742,357	8	7	7	7
41	0.09	4.32E-02	536,615	2.71E+05	0	1,083,737	44	5	5	5
42	0.24	7.85E-02	574,253	1.89E+05	189,312	959,195	31	10	10	10
43	0.04	2.55E-02	77,947	5.38E+04	0	189,834	22	2	2	2
82	0.00	0.00E+00	0	0.00E+00	0	0	12	0	0	0
Subtotal	0.10	2.12E-02	2,399,170	4.92E+05	1,424,803	3,373,538	186	34	34	34
50	0.12	5.74E-02	456,856	2.22E+05	0	915,163	26	8	8	8
61	0.42	7.27E-02	3,743,535	6.40E+05	2,449,399	5,037,670	60	39	39	38
62	0.31	9.38E-02	197,144	6.03E+04	49,589	344,698	7	5	5	5
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.30	4.70E-02	4,397,534	6.81E+05	3,036,397	5,758,671	101	52	52	51
Total	0.14	1.69E-02	6,796,704	8.40E+05	5,133,810	8,459,599	375	172	172	85

*Differences in sums of estimates and totals are due to rounding.

Wattled eelpout

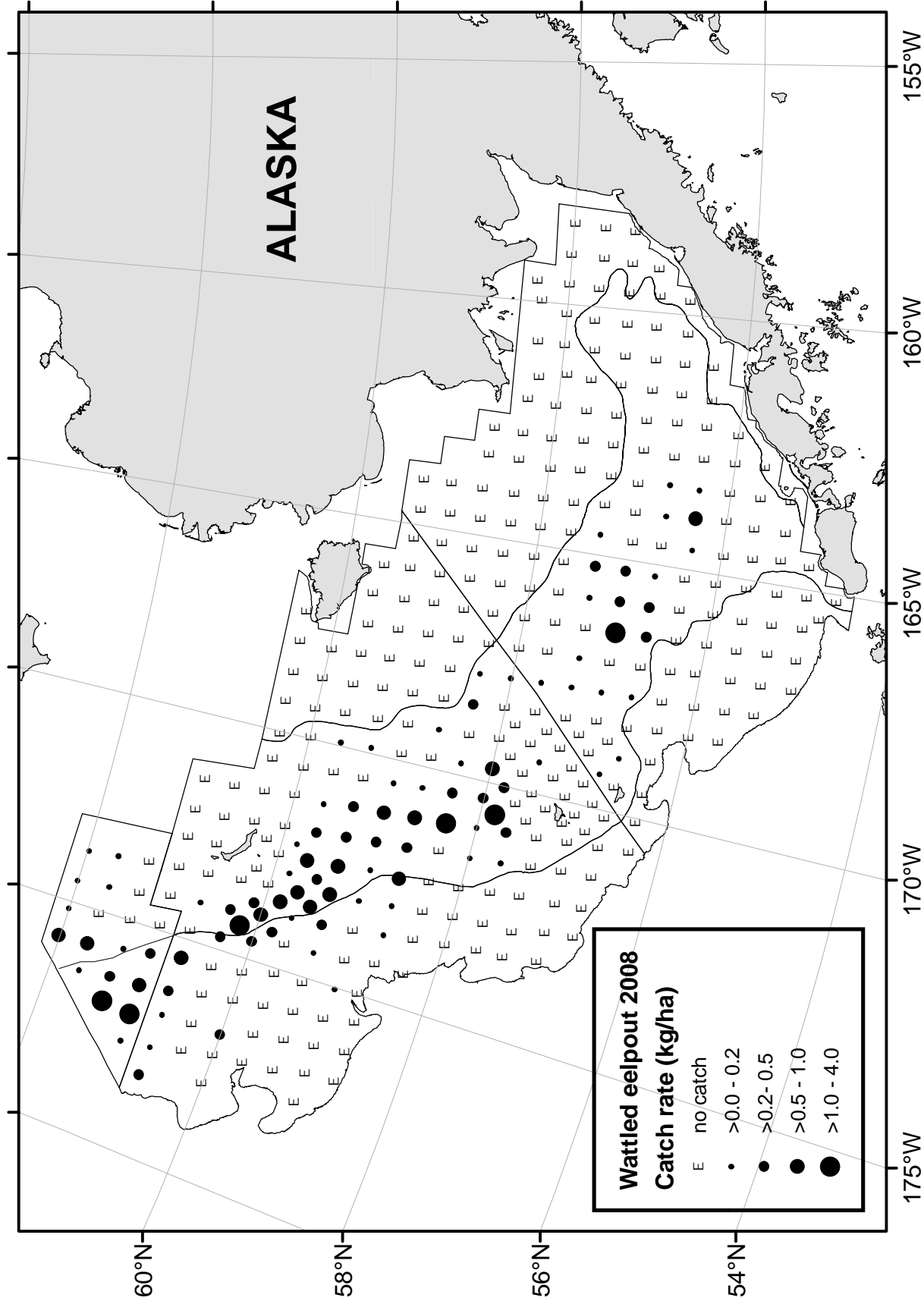


Figure 44. -- Distribution and relative abundance (kg/ha) of wattled eelpout (*Lycodes palearis*) for the 2008 eastern Bering Sea bottom trawl survey.

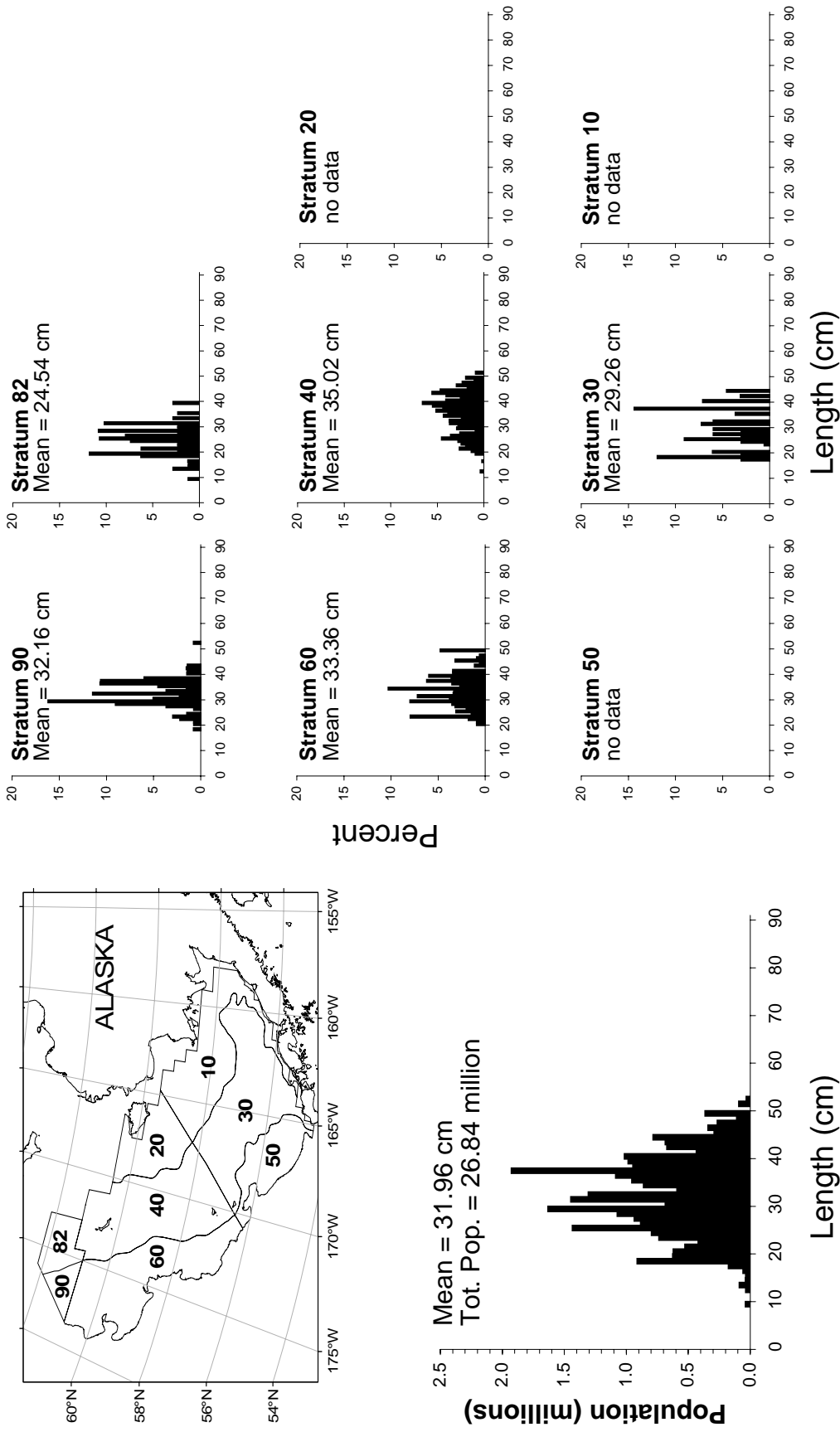


Figure 45. -- Estimated relative size distributions (sexes combined) of **wattled eelpout** (*Lycodes palearis*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 26a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **wattled eelpout** (*Lycodes palearis*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31	0.10	5.07E-02	927	4.79E+02	0	1,885	69	19	19	6
32	0.02	1.33E-02	17	1.16E+01	0	45	8	2	2	2
41	0.13	3.19E-02	817	2.00E+02	413	1,221	44	21	21	16
42	0.13	7.59E-02	309	1.82E+02	0	681	31	7	7	7
43	0.39	9.15E-02	819	1.93E+02	418	1,221	22	15	15	15
82	0.10	6.70E-02	210	1.38E+02	0	514	12	7	7	7
Subtotal	0.13	2.59E-02	3,099	6.00E+02	1,912	4,286	186	71	71	53
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.05	1.98E-02	426	1.74E+02	74	779	60	11	11	8
62	0.20	5.59E-02	131	3.59E+01	43	219	7	6	6	6
90	0.56	2.11E-01	645	2.44E+02	67	1,223	8	8	8	8
Subtotal	0.08	2.09E-02	1,203	3.02E+02	585	1,820	101	25	25	22
Total	0.09	1.35E-02	4,301	6.71E+02	2,972	5,631	375	192	192	75

*Differences in sums of estimates and totals are due to rounding.

Table 26b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **wattled eelpout** (*Lycodes varidens*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31	0.60	2.75E-01	5,684,790	2.60E+06	491,164	10,878,416	69	19	19	6
32	0.15	9.74E-02	130,312	8.55E+04	0	332,413	8	2	2	2
41	0.87	2.01E-01	5,445,364	1.26E+06	2,900,210	7,990,517	44	21	21	16
42	0.42	2.28E-01	1,005,532	5.47E+05	0	2,122,530	31	7	7	7
43	2.02	4.37E-01	4,268,581	9.21E+05	2,351,983	6,185,178	22	15	15	15
82	1.47	8.62E-01	3,037,784	1.78E+06	0	6,956,208	12	7	7	7
Subtotal	0.84	1.53E-01	19,572,363	3.56E+06	12,528,897	26,615,830	186	71	71	53
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.28	1.29E-01	2,477,078	1.14E+06	175,758	4,778,398	60	11	11	8
62	1.27	3.55E-01	816,694	2.28E+05	258,549	1,374,839	7	6	6	6
90	3.44	1.08E+00	3,973,709	1.25E+06	1,020,647	6,926,770	8	8	8	8
Subtotal	0.50	1.18E-01	7,267,481	1.71E+06	3,785,404	10,749,557	101	25	25	22
Total	0.54	7.96E-02	26,839,844	3.94E+06	19,028,943	34,650,745	375	192	192	75

*Differences in sums of estimates and totals are due to rounding.

Shortfin eelpout

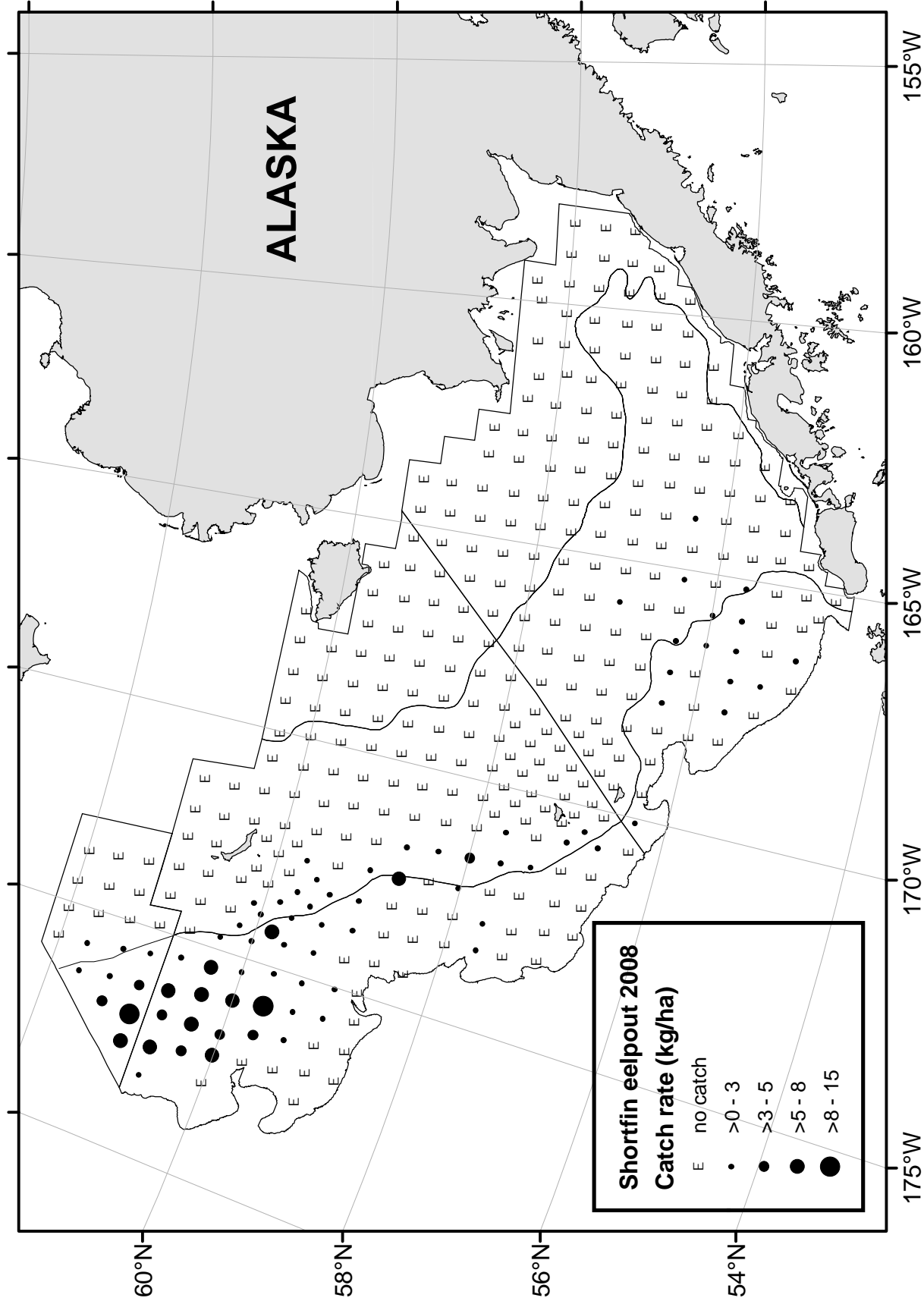


Figure 46. -- Distribution and relative abundance (kg/ha) of shortfin eelpout (*Lycodes brevipes*) for the 2008 eastern Bering Sea bottom trawl survey.

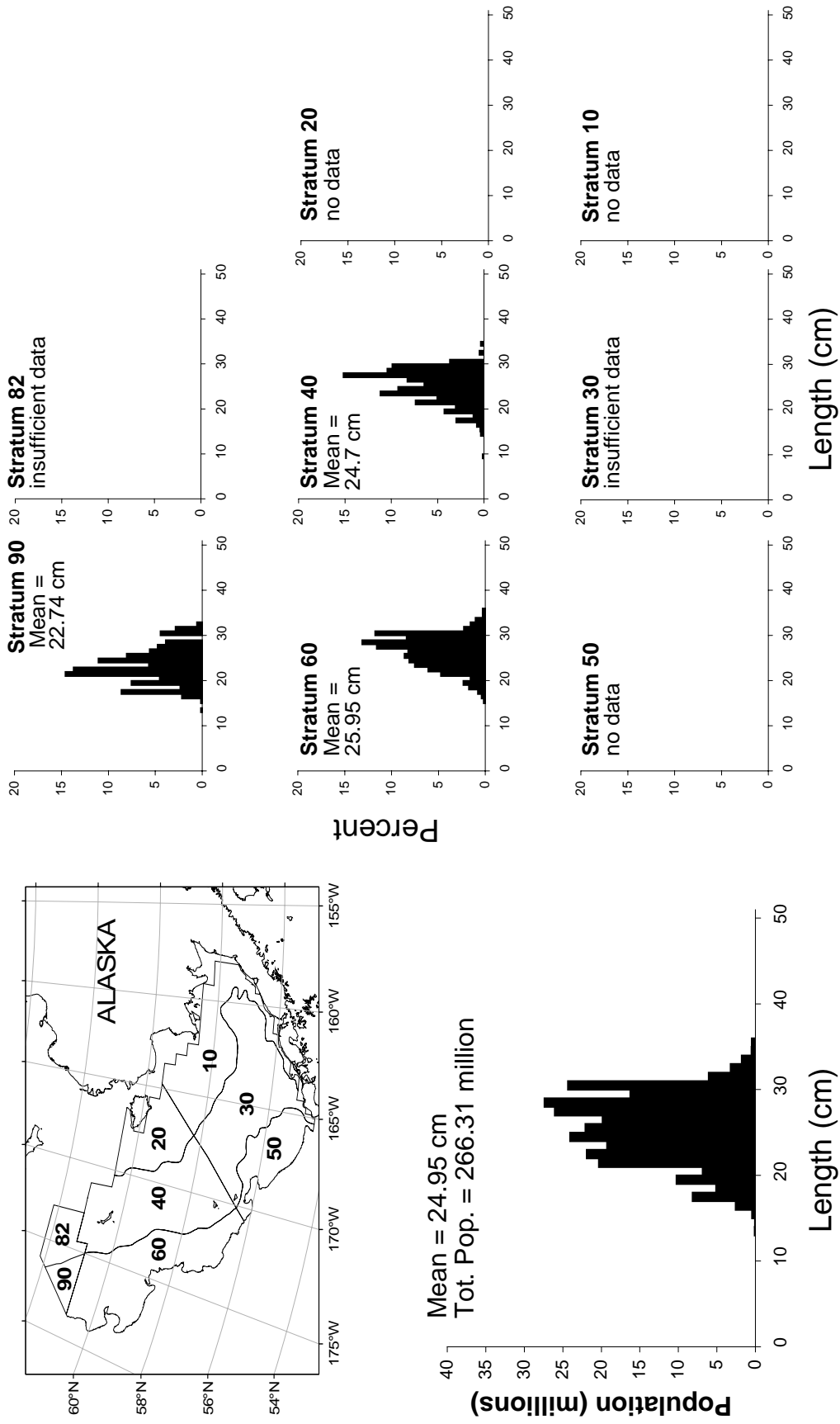


Figure 47. -- Estimated relative size distributions (sexes combined) of shortfin eelpout (*Lycodes brevipes*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 27a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **shortfin eelpout** (*Lycodes brevipes*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31	0.00	2.88E-03	38	2.72E+01	0	92	69	6	6	2
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.11	8.02E-02	684	5.03E+02	0	1,700	44	6	6	6
42	0.00	1.86E-03	7	4.47E+00	0	16	31	3	3	3
43	0.17	9.11E-02	354	1.92E+02	0	754	22	9	9	8
82	0.00	3.10E-04	1	6.41E-01	0	2	12	1	1	1
Subtotal	0.05	2.33E-02	1,083	5.39E+02	0	2,172	186	25	25	20
50	0.02	6.87E-03	73	2.66E+01	18	128	26	10	10	8
61	1.48	3.53E-01	13,001	3.11E+03	6,722	19,281	60	28	28	27
62	1.52	7.41E-01	977	4.76E+02	0	2,142	7	7	7	7
90	3.77	1.73E+00	4,364	2.00E+03	0	9,088	8	8	8	8
Subtotal	1.27	2.57E-01	18,415	3.72E+03	10,887	25,942	101	53	53	50
Total	0.39	7.59E-02	19,498	3.76E+03	11,971	27,024	375	156	156	70

*Differences in sums of estimates and totals are due to rounding.

Table 27b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **shortfin eelpout** (*Lycodes brevipes*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	Eff. deg. freedom	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
						Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	56	0	0	57	0	0	0
20	0.00	0.00E+00	0	0.00E+00	30	0	0	31	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	86	0	0	88	0	0	0
31	0.08	3.76E-02	740,197	3.55E+05	68	30,224	1,450,171	69	6	6	2
32	0.00	0.00E+00	0	0.00E+00	7	0	0	8	0	0	0
41	1.49	1.04E+00	9,364,796	6.52E+06	43	0	22,541,539	44	6	6	6
42	0.10	6.34E-02	240,614	1.52E+05	30	0	552,080	31	3	3	3
43	2.71	1.44E+00	5,717,549	3.04E+06	21	0	12,044,716	22	9	9	8
82	0.02	1.72E-02	35,621	3.56E+04	11	0	114,984	12	1	1	1
Subtotal	0.69	3.11E-01	16,098,776	7.21E+06	59	1,537,343	30,660,210	186	25	25	20
50	0.44	1.60E-01	1,723,942	6.20E+05	25	447,207	3,000,677	26	10	10	8
61	18.17	4.29E+00	160,173,469	3.78E+07	59	83,789,147	236,557,792	60	28	28	27
62	23.01	1.03E+01	14,791,999	6.62E+06	6	0	30,996,065	7	7	7	7
90	63.55	3.16E+01	73,518,367	3.65E+07	7	0	159,865,875	8	8	8	8
Subtotal	17.26	3.66E+00	250,207,776	5.30E+07	28	143,156,898	357,258,655	101	53	53	50
Total	5.37	1.08E+00	266,306,553	5.35E+07	29	159,392,463	373,220,643	375	156	156	70

*Differences in sums of estimates and totals are due to rounding.

Marbled eelpout

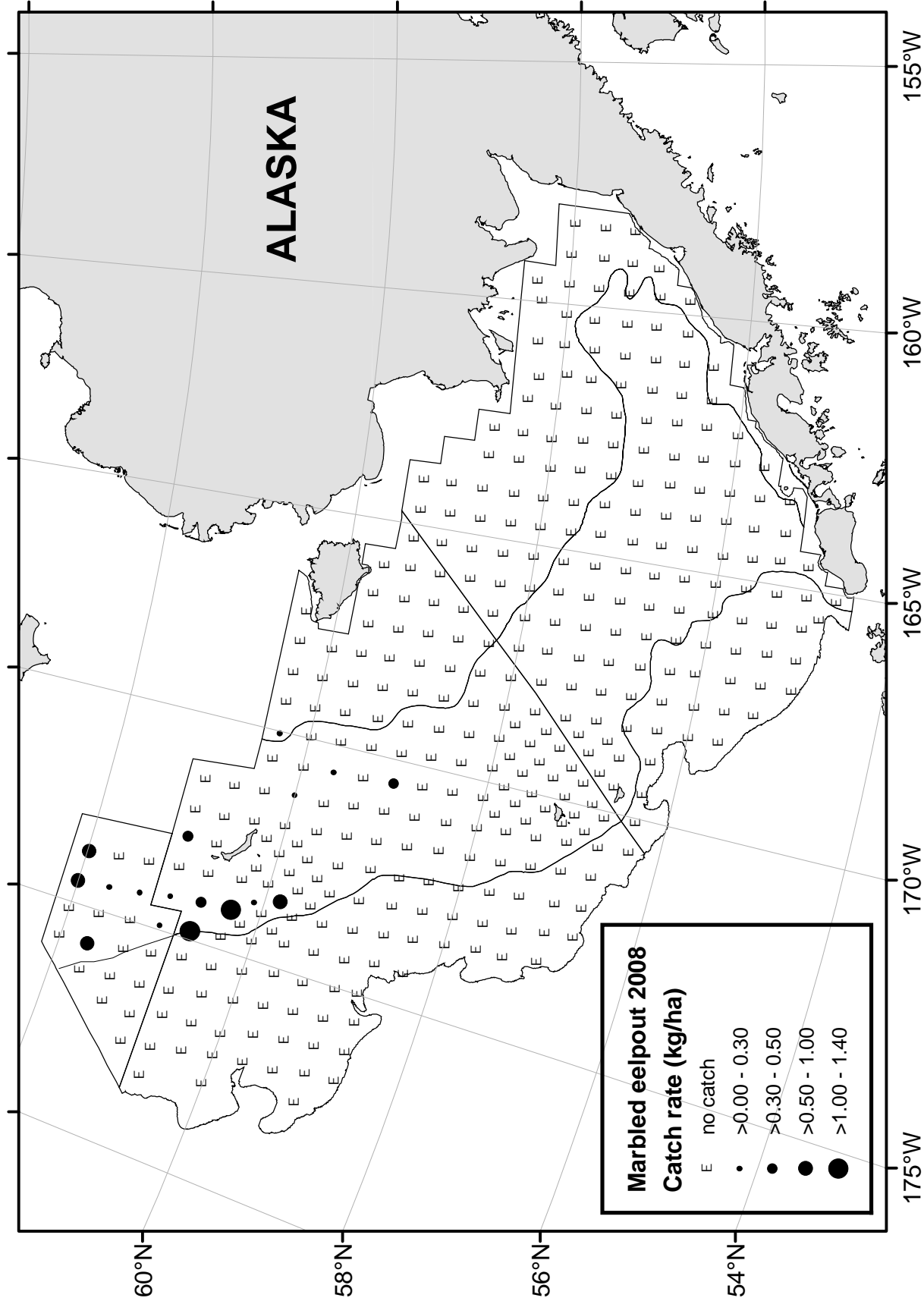


Figure 48. -- Distribution and relative abundance (kg/ha) of marbled eelpout (*Lycodes varidens*) for the 2008 eastern Bering Sea bottom trawl survey.

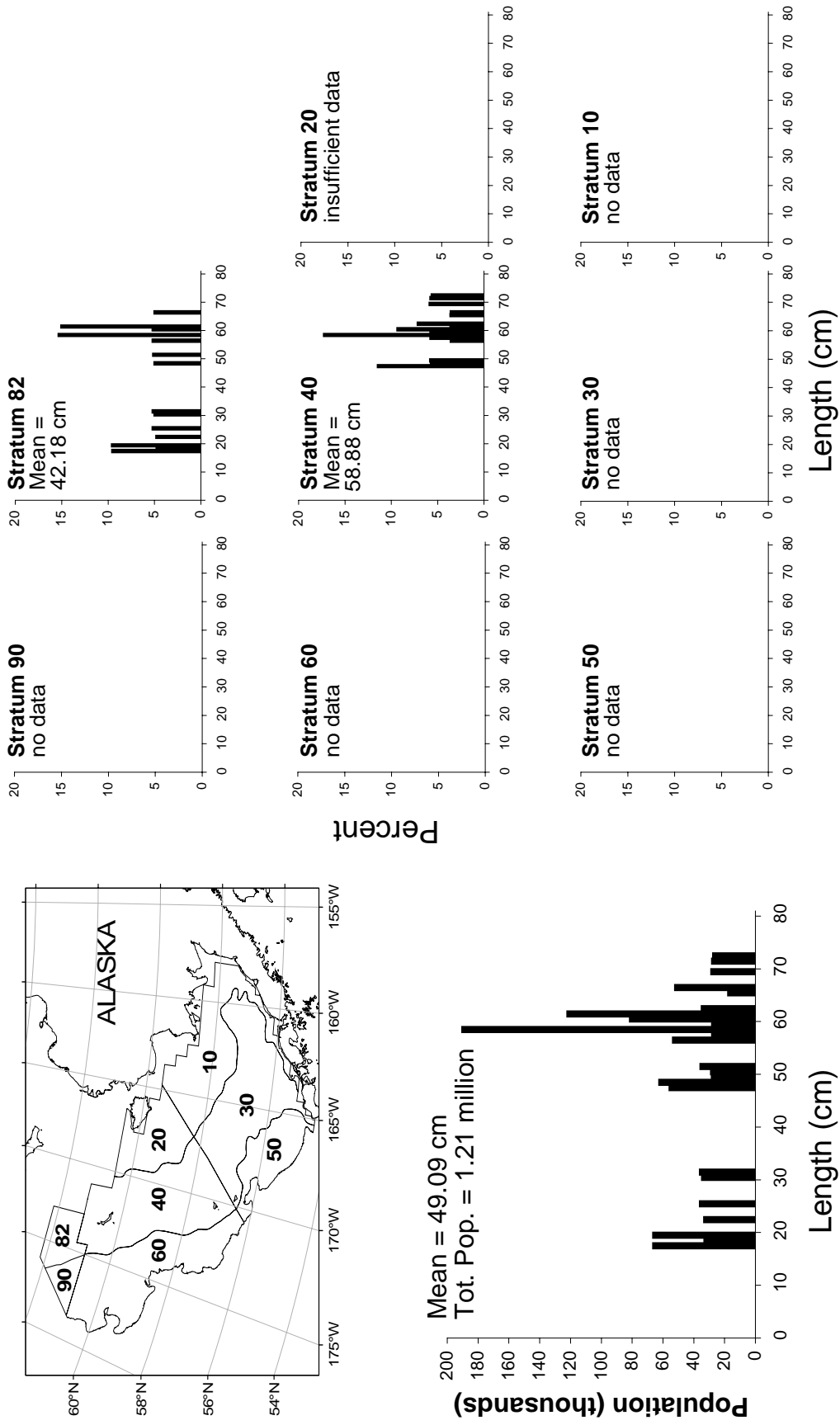


Figure 49. -- Estimated relative size distributions (sexes combined) of **marbled eelpout** (*Lycodes varidens*) in terms of population numbers and percent by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Table 28a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **marbled eelpout** (*Lycodes varidens*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.01	5.06E-03	21	2.08E+01	0	63	31	1	1	1
Subtotal	0.00	1.75E-03	21	2.08E+01	0	63	88	1	1	1
31	0.00	0.00E+00	0	0.00E+00	0	0	69	0	0	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.07	3.42E-02	428	2.14E+02	0	861	44	7	7	7
42	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
43	0.09	5.58E-02	183	1.18E+02	0	429	22	3	3	3
82	0.23	1.05E-01	473	2.17E+02	0	951	12	6	6	6
Subtotal	0.05	1.41E-02	1,084	3.27E+02	430	1,738	186	16	16	16
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	0.02	6.61E-03	1,105	3.28E+02	456	1,754	375	34	34	17

*Differences in sums of estimates and totals are due to rounding.

Table 28b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **marbled eelpout** (*Lycodes varidens*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	0.00E+00	0	0.00E+00	0	0	57	0	0	0
20	0.01	7.01E-03	28,746	2.87E+04	0	87,447	31	1	1	1
Subtotal	0.00	2.42E-03	28,746	2.87E+04	0	86,843	88	1	1	1
31	0.00	0.00E+00	0	0.00E+00	0	0	69	0	0	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.05	2.51E-02	336,388	1.57E+05	18,263	654,513	44	7	7	7
42	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
43	0.07	4.17E-02	150,045	8.79E+04	0	333,439	22	3	3	3
82	0.34	1.24E-01	693,410	2.57E+05	128,660	1,258,160	12	6	6	6
Subtotal	0.05	1.35E-02	1,179,843	3.14E+05	552,644	1,807,042	186	16	16	16
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	0.02	6.35E-03	1,208,589	3.15E+05	585,059	1,832,119	375	34	34	17

*Differences in sums of estimates and totals are due to rounding.

Sturgeon poacher

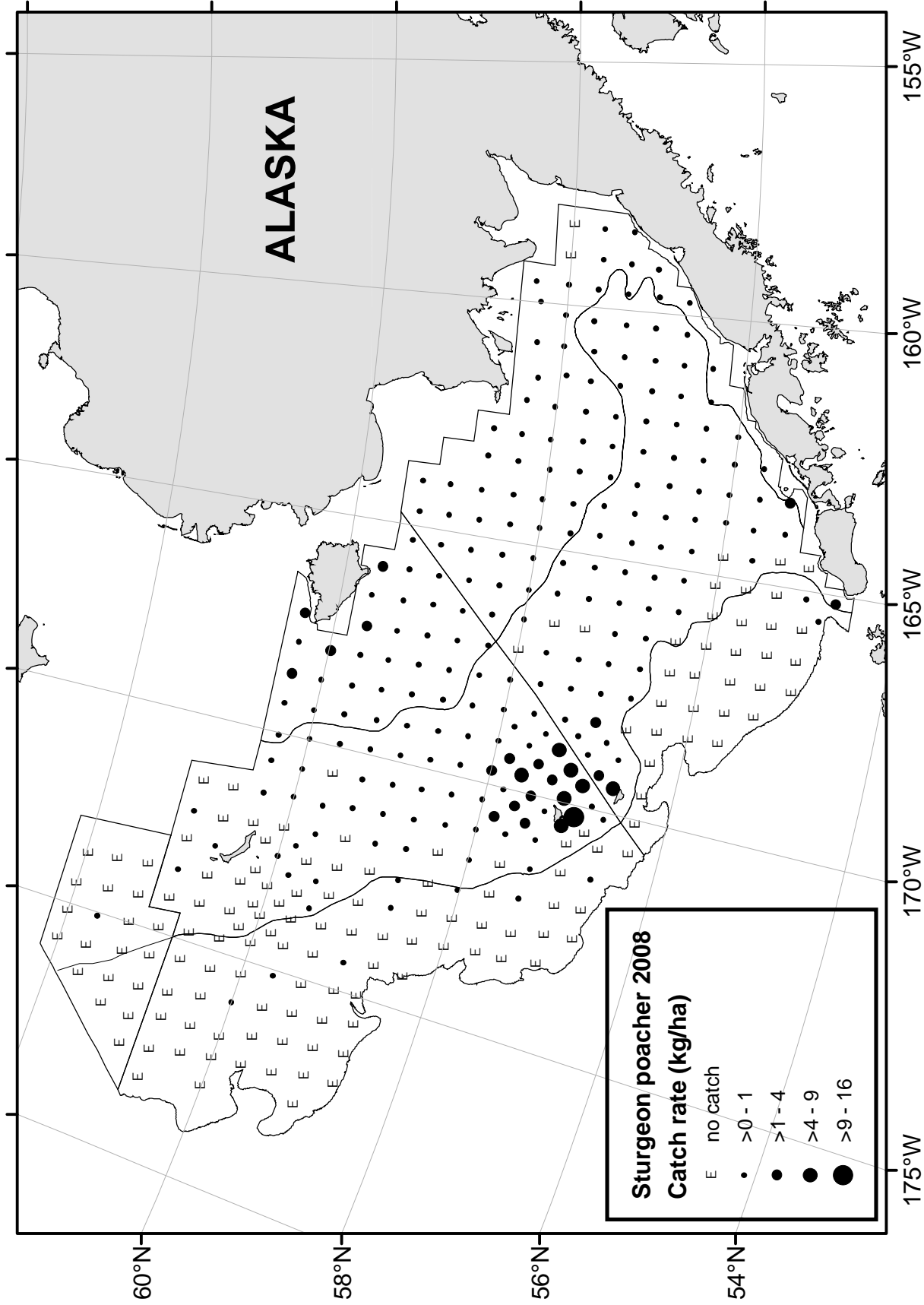


Figure 50. -- Distribution and relative abundance (kg/ha) of sturgeon poacher (*Podotheicus accipenserinus*) for the 2008 eastern Bering Sea bottom trawl survey.

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Table 29a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **sturgeon poacher** (*Podothecus accipenserinus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.26	3.17E-02	2,044	2.47E+02	1,545	2,543	57	55	55	0
20	0.74	1.32E-01	3,055	5.43E+02	1,946	4,164	31	31	31	0
Subtotal	0.43	5.02E-02	5,099	5.97E+02	3,893	6,305	88	86	86	0
31	0.33	4.91E-02	3,106	4.64E+02	2,178	4,034	69	59	59	0
32	1.89	1.01E+00	1,657	8.82E+02	0	3,816	8	8	8	0
41	0.06	1.41E-02	358	8.86E+01	179	537	44	32	32	0
42	2.32	5.71E-01	5,571	1.37E+03	2,770	8,373	31	29	29	0
43	0.01	7.45E-03	28	1.57E+01	0	61	22	6	6	0
82	0.00	1.09E-03	2	2.26E+00	0	7	12	1	1	0
Subtotal	0.46	7.33E-02	10,723	1.70E+03	7,292	14,155	186	135	135	0
50	0.02	2.03E-02	82	7.88E+01	0	244	26	2	2	0
61	0.00	1.41E-03	32	1.24E+01	7	57	60	8	8	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.01	5.51E-03	114	7.98E+01	0	290	101	10	10	0
Total	0.32	3.64E-02	15,936	1.80E+03	12,295	19,577	375	462	462	0

*Differences in sums of estimates and totals are due to rounding.

Table 29b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **sturgeon poacher** (*Podothecus accipenserinus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	4.06	7.35E-01	31,598,240	5.72E+06	20,030,156	43,166,323	57	55	55	0
20	11.92	1.51E+00	48,896,092	6.18E+06	36,269,586	61,522,598	31	31	31	0
Subtotal	6.77	7.09E-01	80,494,332	8.43E+06	63,465,329	97,523,334	88	86	86	0
31	5.34	7.74E-01	50,476,403	7.32E+06	35,842,476	65,110,331	69	59	59	0
32	25.61	1.05E+01	22,471,289	9.18E+06	3,004	44,939,575	8	8	8	0
41	1.24	3.24E-01	7,764,447	2.03E+06	3,660,645	11,868,250	44	32	32	0
42	27.48	6.04E+00	65,991,070	1.45E+07	36,366,065	95,616,075	31	29	29	0
43	0.24	1.12E-01	509,049	2.35E+05	19,318	998,779	22	6	6	0
82	0.02	2.38E-02	49,063	4.91E+04	0	158,374	12	1	1	0
Subtotal	6.35	8.10E-01	147,261,321	1.88E+07	109,316,809	185,205,833	186	135	135	0
50	0.30	2.87E-01	1,145,305	1.11E+06	0	3,444,102	26	2	2	0
61	0.07	2.60E-02	587,649	2.29E+05	124,480	1,050,817	60	8	8	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.12	7.85E-02	1,732,953	1.14E+06	0	4,235,694	101	10	10	0
Total	4.63	4.16E-01	229,488,606	2.06E+07	187,834,627	271,142,585	375	462	462	0

*Differences in sums of estimates and totals are due to rounding.

Bering poacher

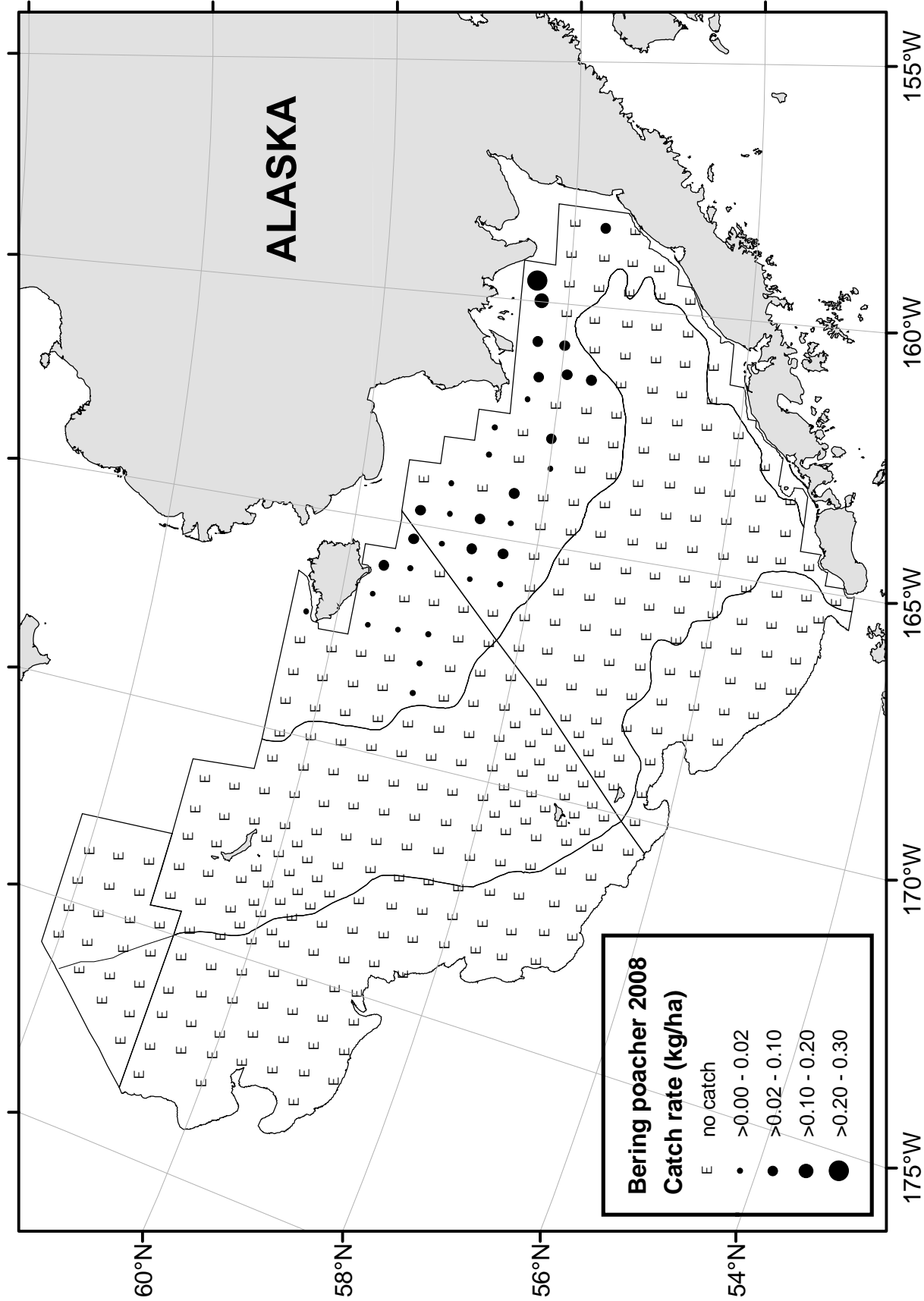


Figure 51. -- Distribution and relative abundance (kg/ha) of *Bering poacher* (*Ocella dodocaedron*) for the 2008 eastern Bering Sea bottom trawl survey.

Table 30a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Bering poacher** (*Ocella dodecaedron*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit Lower	95% Confidence limit Upper	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
10	0.02	6.22E-03	154	4.84E+01	56	252	57	24	24	0
20	0.00	2.15E-03	20	8.83E+00	2	38	31	10	10	0
Subtotal	0.01	4.14E-03	173	4.92E+01	74	273	88	34	34	0
31-43, 82	0.00	0.00E+00	0	0.00E+00	0	0	186	0	0	0
50-92	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	0.00	9.93E-04	173	4.92E+01	76	271	375	34	34	0

Table 30b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Bering poacher** (*Ocella dodecaedron*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.66	2.00E-01	5,153,173	1.56E+06	2,009,762	8,296,584	57	24	24	0
20	0.18	7.29E-02	729,486	2.99E+05	119,111	1,339,862	31	10	10	0
Subtotal	0.49	1.33E-01	5,882,660	1.58E+06	2,681,727	9,083,592	88	34	34	0
31-43, 82	0.00	0.00E+00	0	0.00E+00	0	0	186	0	0	0
50-90	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	0.12	3.20E-02	5,882,660	1.58E+06	2,746,664	9,018,655	375	34	34	0

*Differences in sums of estimates and totals are due to rounding.

Butterfly sculpin

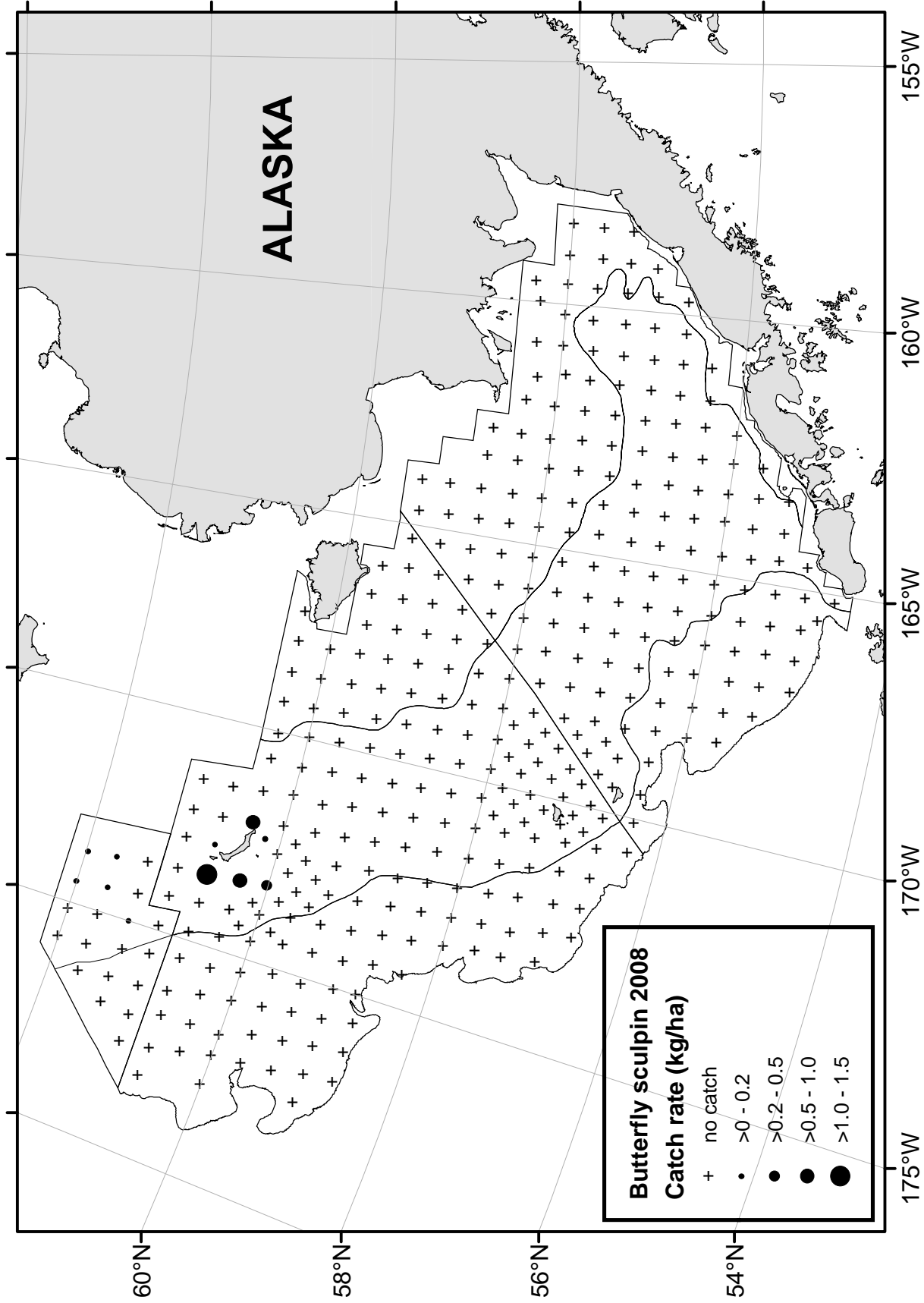


Figure 52. -- Distribution and relative abundance (kg/ha) of **butterfly sculpin** (*Hemilepidotus papilio*) for the 2008 eastern Bering Sea bottom trawl survey.

Table 31a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **butterfly sculpin** (*Hemilepidotus papilio*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit Lower	95% Confidence limit Upper	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
10, 20	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
31,32,42	0.00	0.00E+00	0	0.00E+00	0	0	108	0	0	0
41	0.03	3.04E-02	191	1.91E+02	0	576	44	2	2	1
43	0.16	7.97E-02	335	1.68E+02	0	686	22	5	5	5
82	0.01	3.81E-03	17	7.87E+00	0	34	12	5	5	5
Subtotal	0.02	1.10E-02	543	2.54E+02	34	1,051	186	12	12	11
50-90	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	0.01	5.13E-03	543	2.54E+02	40	1,046	375	24	24	11

Table 31b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **butterfly sculpin** (*Hemilepidotus papilio*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit Lower	95% Confidence limit Upper	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
10,20	0.00	0.00E+00	0	0.00E+00	0	0	88	0	0	0
42	0.00	0.00E+00	0	0.00E+00	0	0	108	0	0	0
41	0.07	6.02E-02	457,921	3.77E+05	0	1,220,327	44	2	2	1
43	0.68	3.28E-01	1,428,025	6.92E+05	0	2,871,350	22	5	5	5
82	0.13	6.46E-02	274,716	1.34E+05	0	572,201	12	5	5	5
Subtotal	0.09	3.45E-02	2,160,663	7.99E+05	562,064	3,759,261	186	12	12	11
50-90	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	0.04	1.61E-02	2,160,663	7.99E+05	578,050	3,743,275	375	24	24	11

*Differences in sums of estimates and totals are due to rounding.

Eulachon

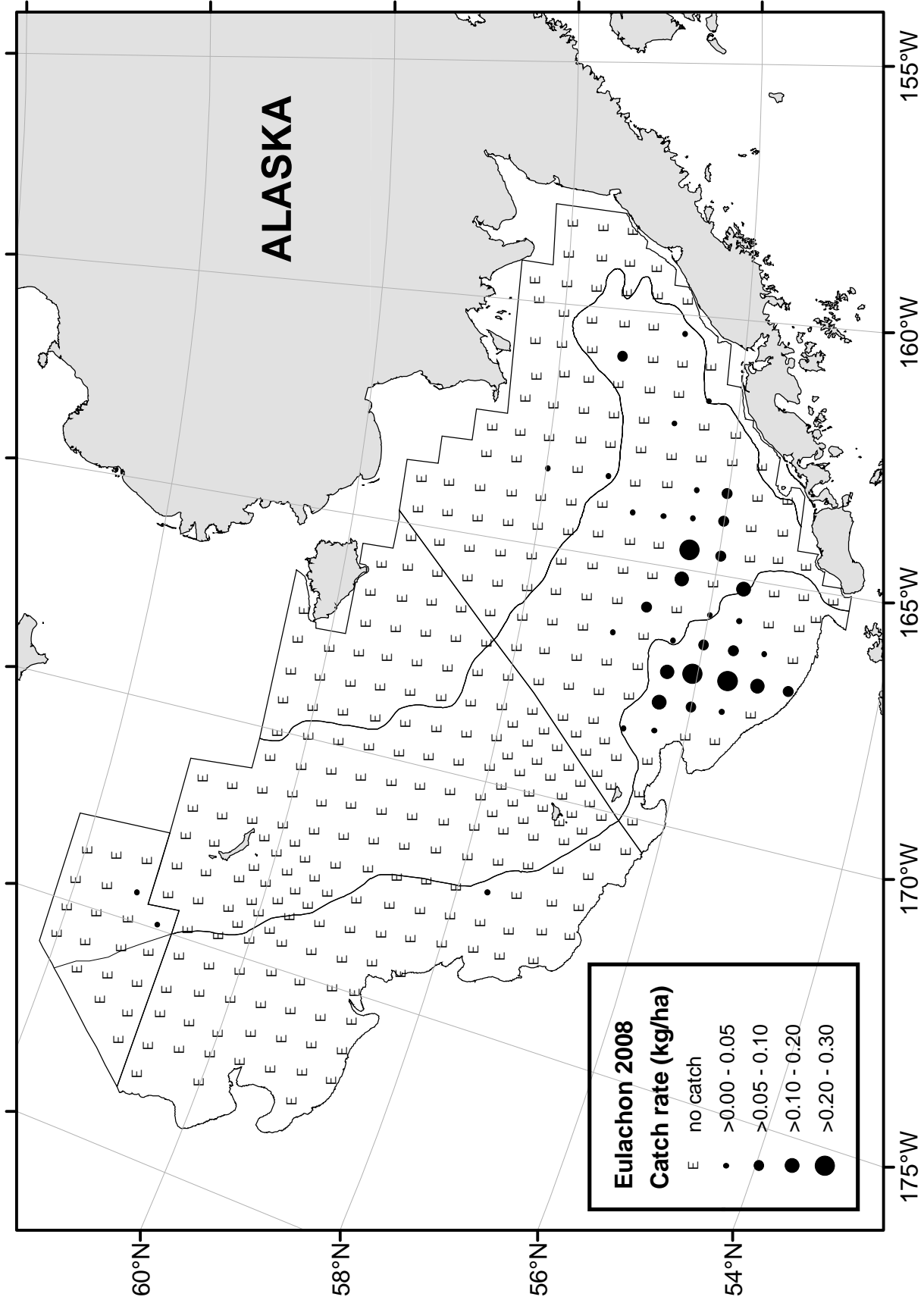


Figure 53. -- Distribution and relative abundance (kg/ha) of eulachon (*Thaleichthys pacificus*) for the 2008 eastern Bering Sea bottom trawl survey.

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Table 32a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **eulachon** (*Thaleichthys pacificus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit Lower	95% Confidence limit Upper	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
10	0.00	5.56E-04	6	4.33E+00	0	15	57	3	3	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.00	3.64E-04	6	4.33E+00	0	15	88	3	3	0
31	0.02	5.53E-03	173	5.23E+01	69	278	69	17	17	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.00	0.00E+00	0	0.00E+00	0	0	44	0	0	0
42	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
43	0.00	0.00E+00	0	0.00E+00	0	0	22	0	0	0
82	0.00	2.42E-03	6	5.00E+00	0	17	12	2	2	0
Subtotal	0.01	2.27E-03	179	5.25E+01	74	284	186	19	19	0
50	0.05	1.58E-02	205	6.12E+01	79	331	26	14	14	0
61	0.00	1.96E-04	2	1.73E+00	0	5	60	1	1	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.01	4.23E-03	207	6.12E+01	72	342	101	15	15	0
Total	0.01	1.63E-03	392	8.08E+01	232	552	375	74	74	0

*Differences in sums of estimates and totals are due to rounding.

Table 32b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **eulachon** (*Thaleichthys pacificus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.04	2.64E-02	286,573	2.05E+05	0	701,394	57	3	3	0
20	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
Subtotal	0.02	1.73E-02	286,573	2.05E+05	0	705,705	88	3	3	0
31	0.24	7.15E-02	2,267,420	6.76E+05	914,824	3,620,017	69	17	17	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.00	0.00E+00	0	0.00E+00	0	0	44	0	0	0
42	0.00	0.00E+00	0	0.00E+00	0	0	31	0	0	0
43	0.00	0.00E+00	0	0.00E+00	0	0	22	0	0	0
82	0.23	2.08E-01	465,057	4.31E+05	0	1,412,844	12	2	2	0
Subtotal	0.12	3.46E-02	2,732,477	8.02E+05	1,128,969	4,335,986	186	19	19	0
50	1.68	5.52E-01	6,514,238	2.14E+06	2,106,775	10,921,701	26	14	14	0
61	0.00	3.27E-03	28,786	2.88E+04	0	86,963	60	1	1	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.45	1.48E-01	6,543,024	2.14E+06	1,833,459	11,252,589	101	15	15	0
Total	0.19	4.63E-02	9,562,075	2.29E+06	5,019,530	14,104,620	375	74	74	0

*Differences in sums of estimates and totals are due to rounding.

Capelin

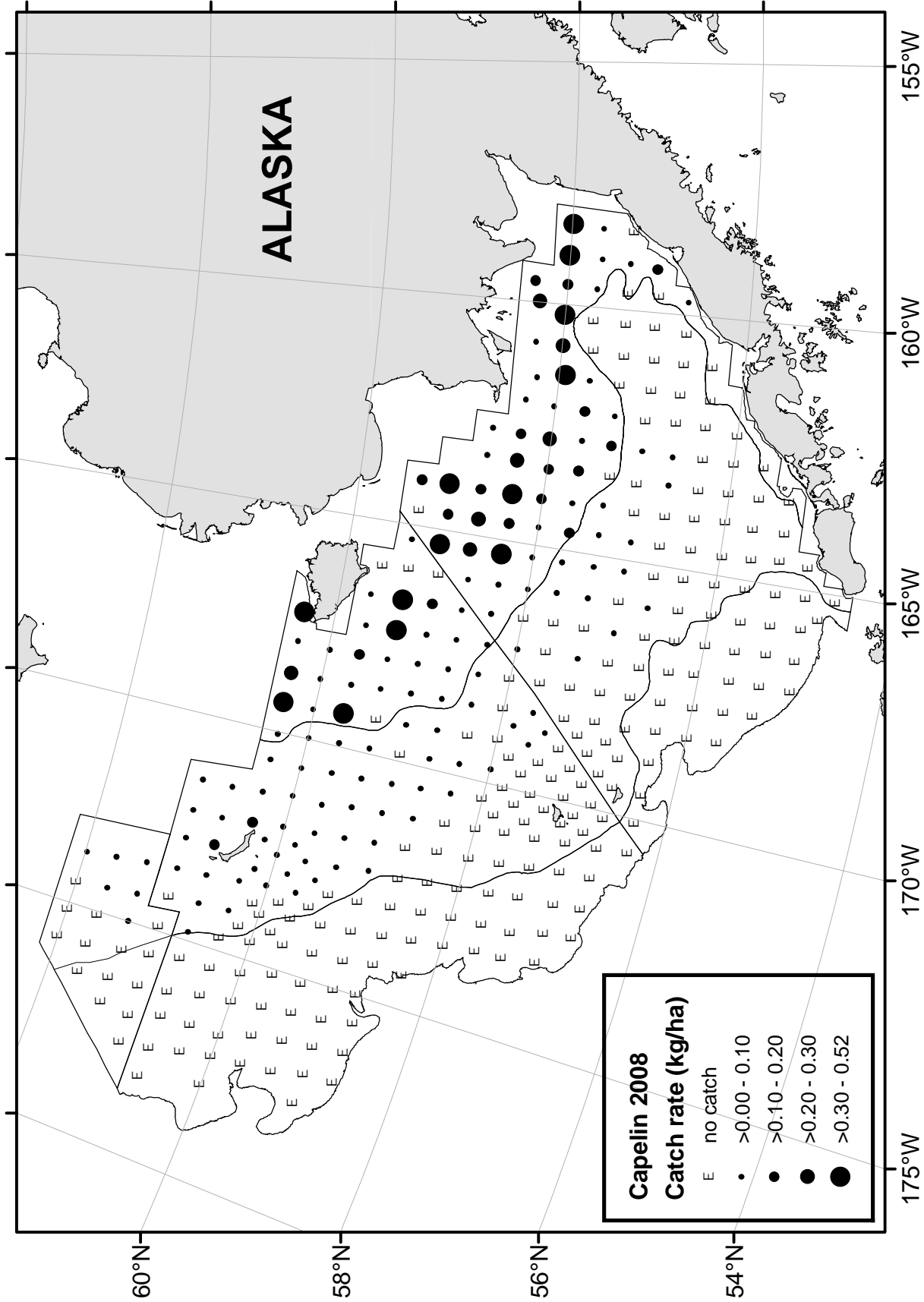


Figure 54. -- Distribution and relative abundance (kg/ha) of capelin (*Mallotus villosus*) for the 2008 eastern Bering Sea bottom trawl survey.

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Table 33a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for capelin (*Mallotus villosus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)*	Stand. error of estimated biomass	95% Confidence limit Lower	95% Confidence limit Upper	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
10	0.13	1.71E-02	1,024	1.33E+02	754	1,293	57	49	49	0
20	0.10	2.40E-02	418	9.83E+01	217	618	31	27	27	0
Subtotal	0.12	1.39E-02	1,441	1.66E+02	1,110	1,773	88	76	76	0
31	0.01	1.85E-03	51	1.75E+01	17	86	69	15	15	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.03	4.72E-03	170	2.96E+01	110	230	44	34	34	0
42	0.00	1.40E-03	6	3.36E+00	0	13	31	5	5	0
43	0.02	6.61E-03	34	1.39E+01	5	63	22	16	16	0
82	0.01	5.22E-03	17	1.08E+01	0	41	12	6	6	0
Subtotal	0.01	1.67E-03	278	3.88E+01	186	370	186	76	76	0
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	0.03	3.43E-03	1,720	1.70E+02	1,379	2,060	375	304	304	0

*Differences in sums of estimates and totals are due to rounding.

Table 33b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **capelin** (*Mallotus villosus*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit Lower	Upper	Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
10	6.47	8.49E-01	50,391,224	6.61E+06	37,037,110	63,745,337	57	49	49	0
20	5.04	1.21E+00	20,657,509	4.96E+06	10,520,997	30,794,022	31	27	27	0
Subtotal	5.98	6.95E-01	71,048,733	8.26E+06	54,519,631	87,577,835	88	76	76	0
31	0.25	8.57E-02	2,335,316	8.10E+05	714,420	3,956,212	69	15	15	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	1.75	2.86E-01	10,992,837	1.79E+06	7,372,316	14,613,359	44	34	34	0
42	0.09	4.52E-02	224,270	1.09E+05	2,339	446,201	31	5	5	0
43	1.05	3.75E-01	2,219,636	7.92E+05	571,674	3,867,598	22	16	16	0
82	0.73	4.69E-01	1,514,871	9.68E+05	0	3,646,240	12	6	6	0
Subtotal	0.75	1.01E-01	17,286,930	2.33E+06	11,769,151	22,804,708	186	76	76	0
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	0.00E+00	0	0.00E+00	0	0	60	0	0	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.00	0.00E+00	0	0.00E+00	0	0	101	0	0	0
Total	1.78	1.73E-01	88,335,662	8.59E+06	71,160,547	105,510,778	375	304	304	0

*Differences in sums of estimates and totals are due to rounding.

Pacific herring

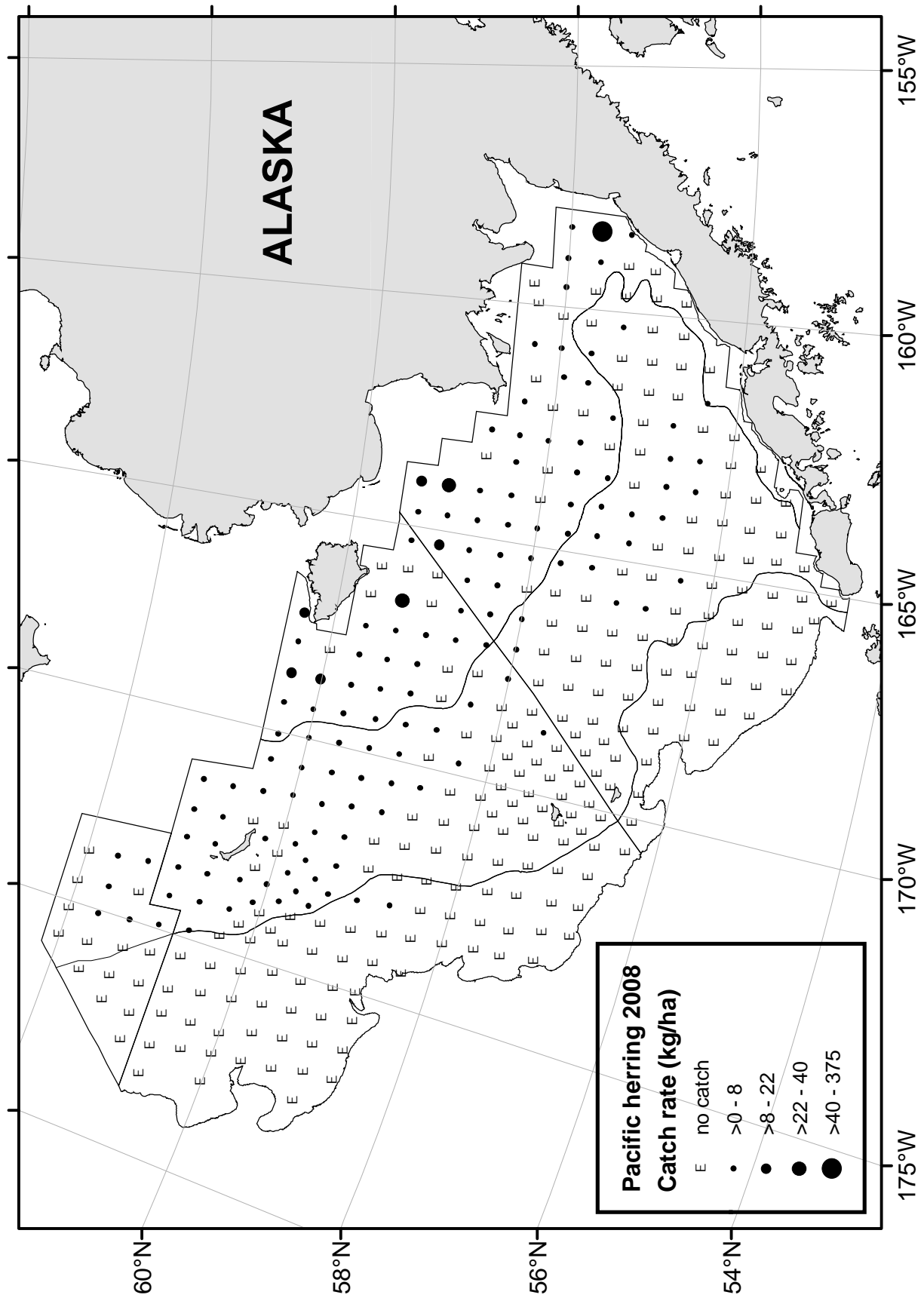


Figure 55. -- Distribution and relative abundance (kg/ha) of Pacific herring (*Clupea pallasii*) for the 2008 eastern Bering Sea bottom trawl survey.

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Table 34a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Pacific herring** (*Clupea pallasii*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	8.36	6.56E+00	65,074	5.11E+04	0	168,295	57	38	38	0
20	3.33	1.43E+00	13,663	5.85E+03	1,696	25,630	31	23	23	0
Subtotal	6.62	4.32E+00	78,737	5.14E+04	0	182,634	88	61	61	0
31	0.10	4.99E-02	923	4.72E+02	0	1,867	69	19	19	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.23	6.19E-02	1,435	3.88E+02	650	2,219	44	31	31	0
42	0.00	9.77E-04	2	2.35E+00	0	7	31	1	1	0
43	0.11	2.86E-02	229	6.05E+01	103	355	22	16	16	0
82	0.27	2.51E-01	551	5.19E+02	0	1,693	12	6	6	0
Subtotal	0.14	3.47E-02	3,141	8.04E+02	1,534	4,748	186	73	73	0
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	7.47E-04	9	6.58E+00	0	22	60	2	2	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.00	4.54E-04	9	6.58E+00	0	23	101	2	2	0
Total	1.65	1.04E+00	81,887	5.14E+04	0	185,796	375	272	272	0

*Differences in sums of estimates and totals are due to rounding.

Table 34b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Pacific herring** (*Clupea pallasii*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	35.15	1.84E+01	273,745,803	1.43E+08	0	562,959,591	57	38	38	0
20	128.95	6.79E+01	529,034,666	2.78E+08	0	1,098,462,475	31	23	23	0
Subtotal	67.52	2.63E+01	802,780,470	3.13E+08	170,066,797	1,435,494,142	88	61	61	0
31	0.75	3.81E-01	7,105,403	3.60E+06	0	14,307,353	69	19	19	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	4.18	1.03E+00	26,179,116	6.44E+06	13,171,219	39,187,014	44	31	31	0
42	0.01	6.60E-03	15,846	1.58E+04	0	48,203	31	1	1	0
43	1.53	4.10E-01	3,228,287	8.66E+05	1,422,145	5,034,430	22	16	16	0
82	6.13	5.30E+00	12,655,550	1.09E+07	0	36,747,291	12	6	6	0
Subtotal	2.12	5.71E-01	49,184,203	1.32E+07	22,730,118	75,638,288	186	73	73	0
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.01	4.69E-03	58,897	4.13E+04	0	142,366	60	2	2	0
62	0.00	0.00E+00	0	0.00E+00	0	0	7	0	0	0
90	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
Subtotal	0.00	2.85E-03	58,897	4.13E+04	0	143,233	101	2	2	0
Total	17.19	6.32E+00	852,023,569	3.13E+08	218,745,439	1,485,301,700	375	272	272	0

*Differences in sums of estimates and totals are due to rounding.

Arctic cod

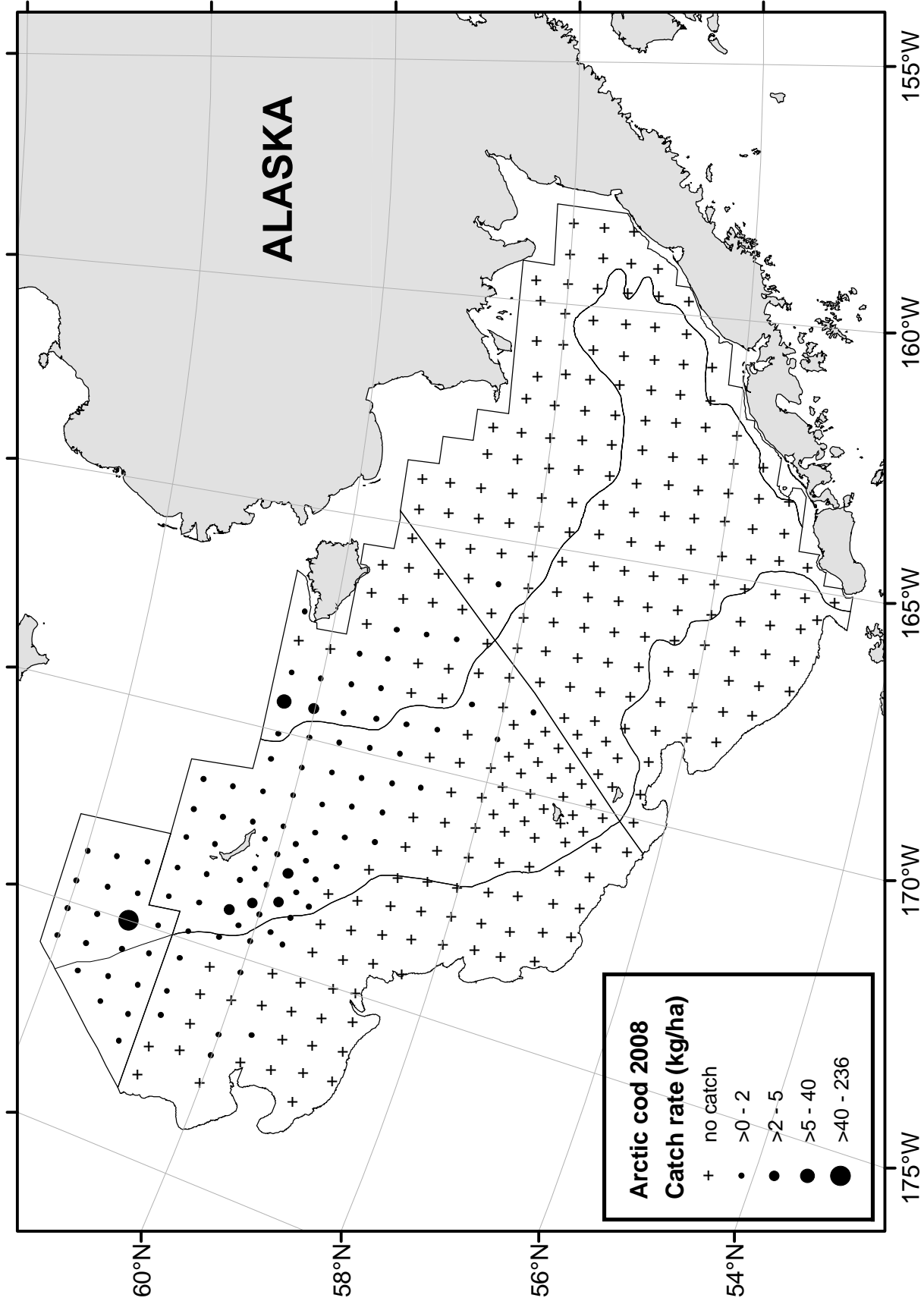


Figure 54. -- Distribution and relative abundance (kg/ha) of Arctic cod (*Boreogadus saida*) for the 2008 eastern Bering Sea bottom trawl survey.

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Table 35a. -- Mean CPUE (kg/ha), estimated biomass (t), standard error, and 95% confidence limits for **Arctic cod** (*Boreogadus saida*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (kg/ha)	Stand. error CPUE (kg/ha)	Estimated biomass (t)	Stand. error of estimated biomass	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.00	6.68E-05	1	5.21E-01	0	2	57	1	1	0
20	1.39	1.21E+00	5,718	4.95E+03	0	15,819	31	15	15	8
Subtotal	0.48	4.16E-01	5,719	4.95E+03	0	15,819	88	16	16	8
31	0.00	0.00E+00	0	0.00E+00	0	0	69	0	0	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	0.29	7.01E-02	1,793	4.40E+02	904	2,681	44	30	30	14
42	0.00	1.53E-03	5	3.68E+00	0	12	31	2	2	1
43	1.09	2.67E-01	2,310	5.63E+02	1,139	3,482	22	21	21	17
82	20.13	1.96E+01	41,570	4.04E+04	0	130,479	12	12	12	12
Subtotal	1.97	1.74E+00	45,678	4.04E+04	0	134,601	186	65	65	44
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.00	7.39E-04	16	6.51E+00	3	30	60	7	7	6
62	0.16	9.51E-02	103	6.11E+01	0	253	7	5	5	5
90	0.03	1.56E-02	37	1.80E+01	0	81	8	8	8	6
Subtotal	0.01	4.42E-03	157	6.41E+01	25	289	101	20	20	17
Total	1.04	8.21E-01	51,553	4.07E+04	0	141,140	375	202	202	69

*Differences in sums of estimates and totals are due to rounding.

Table 35b. -- Mean CPUE (no./ha), estimated population number, standard error, and 95% confidence limits for **Arctic cod** (*Boreogadus saida*) by stratum for the 2008 eastern Bering Sea bottom trawl survey.

Stratum	Mean CPUE (no./ha)	Stand. error CPUE (no./ha)	Estimated population numbers*	Stand. error of estimated population	95% Confidence limit		Total hauls	Hauls with catch	Hauls with numbers	Hauls with length measurements
					Lower	Upper				
10	0.01	1.18E-02	91,863	9.19E+04	0	277,519	57	1	1	0
20	63.66	5.34E+01	261,176,382	2.19E+08	0	708,472,325	31	15	15	8
Subtotal	21.97	1.84E+01	261,268,246	2.19E+08	0	708,564,228	88	16	16	8
31	0.00	0.00E+00	0	0.00E+00	0	0	69	0	0	0
32	0.00	0.00E+00	0	0.00E+00	0	0	8	0	0	0
41	13.70	3.01E+00	85,920,374	1.89E+07	47,802,248	124,038,501	44	30	30	14
42	0.07	5.42E-02	178,178	1.30E+05	0	443,721	31	2	2	1
43	62.87	1.51E+01	132,713,334	3.19E+07	66,410,807	199,015,860	22	21	21	17
82	472.40	4.51E+02	975,741,895	9.32E+08	0	3,027,612,473	12	12	12	12
Subtotal	51.54	4.03E+01	1,194,553,780	9.33E+08	0	3,248,043,165	186	65	65	44
50	0.00	0.00E+00	0	0.00E+00	0	0	26	0	0	0
61	0.09	3.87E-02	826,850	3.41E+05	137,213	1,516,487	60	7	7	6
62	8.24	4.23E+00	5,294,859	2.72E+06	0	11,943,418	7	5	5	5
90	1.65	7.10E-01	1,911,378	8.21E+05	0	3,921,050	8	8	8	6
Subtotal	0.55	1.97E-01	8,033,087	2.86E+06	2,143,806	13,922,369	101	20	20	17
Total	29.54	1.93E+01	1,463,855,113	9.58E+08	0	3,573,192,068	375	202	202	69

*Differences in sums of estimates and totals are due to rounding.

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Appendix A: List of Species Encountered

Appendix A lists all fish and invertebrate species taken during the AFSC's 2008 eastern Bering Sea bottom trawl survey.

List of Tables

Appendix A Table 1 – Fish species encountered during the 2008 eastern Bering Sea bottom trawl survey.

Appendix A Table 2 - Invertebrate species encountered during the 2008 eastern Bering Sea bottom trawl survey.

Appendix A Table 1. -- Fish species encountered during the 2008 eastern Bering Sea bottom trawl survey.

Family / Subfamily	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
Agonidae	<i>Aspidophoroides bartoni</i>	Aleutian alligatorfish	28	50	147	85	56.33583	61.33382
	<i>BathYGONUS alascanus</i>	gray starsnout	1	108	108	108	57.99076	57.99076
	<i>BathYGONUS infraspINATUS</i>	spinycheek starsnout	1	150	150	150	55.98817	55.98817
	<i>Leptagonus frenatus</i>	sawback poacher	40	72	153	105	54.68328	62.01044
	<i>Leptagonus leptorhynchus</i>	longnose poacher	1	130	130	130	54.99961	54.99961
	<i>Ocella dodecaedron</i>	Bering poacher	34	21	54	36	57.65185	60.33307
	<i>Pallasina barbata</i>	tubenose poacher	3	27	32	29	58.63895	59.59718
	<i>Percis japonicus</i>	dragon poacher	1	135	135	135	60.9966	60.9966
	<i>Podothecus accipenserinus</i>	sturgeon poacher	231	21	153	63	54.68328	61.67654
	<i>Ammodytes hexapterus</i>	Pacific sand lance	20	21	52	34	57.03832	60.34188
Ammodytidae	<i>Anarhichas orientalis</i>	Bering wolffish	9	27	83	47	54.68328	60.33371
	<i>Anoplopoma fimbria</i>	sablefish	1	101	101	101	55.35332	55.35332
Anarhichadidae	<i>Bathymaster signatus</i>	searcher	51	74	161	124	54.83633	60.6783
	<i>Clupea pallasii</i>	Pacific herring	136	21	112	58	56.33262	61.67654
Anopiopomatidae	<i>Arctiellus pacificus</i>	hookhorn sculpin	6	69	160	105	56.66586	59.67789
	<i>Dasycottus setiger</i>	spinyhead sculpin	53	75	156	116	54.99107	61.33382
Bathymasteridae	<i>Gymnocalanus detrisus</i>	purplegray sculpin	1	64	64	64	58.98541	58.98541
	<i>Gymnocalanus galeatus</i>	armorhead sculpin	11	61	153	78	54.68328	62.00028
Clupeidae	<i>Gymnocalanus pistilliger</i>	threaded sculpin	52	21	69	38	56.66666	60.99829
	<i>Hemilepidotus jordani</i>	yellow Irish lord	70	49	144	84	54.68328	60.33582
Cottidae	<i>Hemilepidotus papilio</i>	butterfly sculpin	12	46	88	66	60.01467	62.00028
	<i>Hemitripteris bolini</i>	bigmouth sculpin	86	49	150	109	55.33195	60.66968
Anarhichadidae	<i>Icelinus borealis</i>	northern sculpin	9	66	95	79	56.98819	62.01044
	<i>Icelinus spatula</i>	spatulate sculpin	28	56	144	84	56.33953	61.32752
Cottidae	<i>Icelus spiniger</i>	thorny sculpin	67	69	161	119	54.99107	61.68029
	<i>Leptocottus armatus</i>	Pacific staghorn sculpin	1	38	38	38	56.6755	56.6755
Cottidae	<i>Malacocottus zonurus</i>	darkfin sculpin	2	97	156	126	56.00996	58.65554
	<i>Myoxocephalus jaok</i>	plain sculpin	125	21	103	49	56.35193	61.97633

Appendix A Table 1. -- Continued.

Family / Subfamily	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Myoxocephalus polyacanthocephalus</i>	great sculpin	204	27	173	72	55.00648	62.01044
	<i>Myoxocephalus verrucosus</i>	warty sculpin	54	26	126	69	56.66885	61.32098
	<i>Radulinus asprellus</i>	slim sculpin	1	126	126	126	56.67138	56.67138
	<i>Triglops forficata</i>	scissortail sculpin	3	79	106	93	56.65863	59.0184
	<i>Triglops macellus</i>	roughspine sculpin	8	87	153	120	54.83633	56.32804
	<i>Triglops pingeli</i>	ribbed sculpin	33	30	88	59	56.33262	60.33307
	<i>Triglops szepticus</i>	spectacled sculpin	9	136	160	149	54.83633	59.33669
Cyclopterinae	lumpsucker unident.		1	72	72	72	56.8356	56.8356
Gadidae	<i>Boreogadus saida</i>	Arctic cod	101	30	141	77	57.67459	62.01044
	<i>Eleginus gracilis</i>	safron cod	31	21	106	42	57.33303	61.34265
	<i>Gadus macrocephalus</i>	Pacific cod	341	21	173	81	54.68328	62.01044
	<i>Theragra chalcogramma</i>	walleye pollock	333	21	173	80	54.68328	62.01044
Hexagrammidae	<i>Pleurogrammus monopterygius</i>	Atka mackerel	2	96	121	108	55.65709	57.35352
	<i>Hexagrammos stelleri</i>	whitespotted greenling	15	21	50	31	57.03832	60.33307
Liparidae	<i>Careproctus rastrinus</i>	salmon snailfish	26	60	161	109	58.34367	62.01044
	<i>Careproctus</i> sp.		1	135	135	135	59.00059	59.00059
	<i>Careproctus</i> sp. cf. <i>rastrinus</i>		7	66	97	81	59.32693	62.00132
	<i>Crystallichthys cyclospilus</i>	blotched snailfish	2	143	153	148	54.83633	57.64709
	<i>Eumicrotremus</i> sp.	spiny lump suckers	1	72	72	72	56.8356	56.8356
	<i>Liparis gibbus</i>	variegated snailfish	39	42	88	64	56.97493	62.00132
	<i>Liparis</i> sp.		2	46	78	62	60.67474	61.32098
Osmeridae	<i>Liparis tunicatus</i>	kelp snailfish	3	47	62	56	59.6832	60.30406
	<i>Mallotus villosus</i>	capelin	152	21	98	55	56.66316	61.97633
	<i>Osmerus mordax</i>	rainbow smelt	1	22	22	22	59.32317	59.32317
	<i>Thaleichthys pacificus</i>	eulachon	37	44	156	99	54.99107	61.32098
Salmonidae	<i>Oncorhynchus keta</i>	chum salmon	1	41	41	41	58.23085	58.23085
Pleuronectidae	<i>Atheresthes evermanni</i>	Kamchatka flounder	157	51	173	110	54.68328	61.33382
	<i>Atheresthes stomias</i>	arrowtooth flounder	179	49	173	104	54.68328	61.33382
	<i>Glyptocephalus zachirus</i>	rex sole	72	30	160	115	54.68328	59.00059
	<i>Hippoglossoides elassodon</i>	flathead sole	262	33	173	92	54.68328	61.68029
	<i>Hippoglossoides robustus</i>	Bering flounder	94	40	137	80	57.99445	62.01044

Appendix A Table 1. -- Continued.

Family / Subfamily	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Hippoglossus stenolepis</i>	Pacific halibut	302	21	173	77	54.68328	62.00132
	<i>Isopsetta isolepis</i>	butter sole	6	51	94	74	54.68328	56.33262
	<i>Lepidopsetta bilineata</i>	southern rock sole	3	65	83	75	54.68328	55.3466
	<i>Lepidopsetta polyxystra</i>	northern rock sole	312	21	173	74	54.68328	62.01044
	<i>Limanda aspera</i>	yellowfin sole	243	21	116	60	54.68328	61.97633
	<i>Limanda proboscidea</i>	longhead dab	45	21	52	34	56.6755	60.33371
	<i>Limanda sakhalinensis</i>	Sakhalin sole	12	42	104	67	59.01987	62.00028
	<i>Microstomus pacificus</i>	Dover sole	7	87	156	119	54.99961	58.65554
	<i>Platichthys stellatus</i>	starry flounder	67	21	83	43	54.68328	60.34576
	<i>Pleuronectes quadrituberculatus</i>	Alaska plaice	254	21	161	64	54.68328	62.00132
	<i>Reinhardtius hippoglossoides</i>	Greenland turbot	79	60	161	102	56.65937	62.01044
	<i>Bathyraja aleutica</i>	Aleutian skate	5	128	160	141	56.33415	58.32462
	<i>Bathyraja interrupta</i>	Bering skate	75	73	173	120	54.68328	61.34265
	<i>Bathyraja interrupta</i> egg case	Bering skate egg case	2	125	144	134	55.99413	56.33953
	<i>Bathyraja maculata</i>	whiteblotched skate	1	144	144	144	56.33953	56.33953
	<i>Bathyraja parmifera</i>	Alaska skate	347	21	173	80	54.68328	62.01044
	<i>Bathyraja parmifera</i> egg case	Alaska skate egg case	20	46	160	108	54.99961	60.67474
	<i>Bathyraja taranetzi</i>	mud skate	1	144	144	144	56.33953	56.33953
	<i>Raja binoculata</i>	big skate	3	51	83	62	54.68328	55.67397
	<i>Raja rhina</i>	longnose skate	1	109	109	109	56.33883	56.33883
Scorpaenidae	<i>Sebastes alutus</i>	Pacific ocean perch	8	109	160	137	55.00264	58.32462
	<i>Sebastes melanostictus</i>	blackspotted rockfish	1	133	133	133	55.99538	55.99538
	<i>Sebastes polyspinis</i>	northern rockfish	1	144	144	144	56.33953	56.33953
Stichaeidae	<i>Lumpenus fabricii</i>	slender eelblenny	1	69	69	69	56.99553	56.99553
	<i>Lumpenus maculatus</i>	daubed shanny	50	25	156	102	55.33195	61.68029
	<i>Lumpenus sagitta</i>	snake prickleback	4	30	103	64	59.50893	60.33371
	<i>Lumpenus</i> sp.	whitebarred prickleback	1	74	74	74	61.32504	61.32504
	<i>Poroclinus rothrocki</i>	prickleback unident.	2	111	121	116	55.33485	57.35352
Tichodontidae	Stichaeidae	Pacific sandfish	1	66	66	66	60.99829	60.99829
	<i>Trichodon trichodon</i>	shortfin eelpout	14	27	61	45	56.6755	58.35349
Zoaridae	<i>Lycodes brevipes</i>		78	72	161	113	55.00264	61.68847

Appendix A Table 1. -- Continued.

Family / Subfamily	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Lycodes palearis</i>	wattled eelpout	96	56	161	89	56.32277	62.01044
	<i>Lycodes raridens</i>	marbled eelpout	17	53	98	79	58.99007	62.00028
	<i>Lycodes turneri</i>	polar eelpout	4	63	74	70	61.32504	62.00028
other		fish eggs unident.	2	68	69	68	57.65056	58.31902
other		fish unident.	2	49	58	53	55.26086	55.35715
other		skate egg case unident.	9	126	156	134	54.99107	56.67138

Appendix A Table 2. -- Invertebrate species encountered during the 2008 eastern Bering Sea bottom trawl survey.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range		
				Min. depth	Max. depth	Avg. depth	Southern	Northern	
Annelida		worm unident.	3	60	74	65	57.99244	62.00026	
		tube worm unident.	5	60	135	78	56.67088	60.99105	
		sea mouse	19	109	174	139	56.33587	60.66707	
		sea mouse	2	102	112	107	56.32663	58.676	
		sea mouse unident.	1	88	88	88	59.32817	59.32817	
		polychaete worm	1	69	69	69	57.34231	57.34231	
		depressed scale worm	44	46	142	93	55.99089	61.33732	
		giant scale worm	60	46	160	95	56.32316	61.99196	
		scale worm	1	117	117	117	58.01474	58.01474	
		leech unident.	1	93	93	93	58.66635	58.66635	
		striped sea leech	1	91	91	91	60.34048	60.34048	
		polychaete worm unident.	2	33	136	84	57.32781	59.99658	
		scale worm unident.	1	77	77	77	56.65521	56.65521	
		polychaete worm	6	100	159	128	54.83508	56.99824	
		polychaete worm	1	121	121	121	56.33333	56.33333	
		shrimp unident.	1	77	77	77	59.67567	59.67567	
		amphipod unident.	1	77	77	77	56.65521	56.65521	
		common argid	1	81	81	81	56.98812	56.98812	
	Arthropoda		Arctic argid	35	63	159	103	54.83508	61.99196
			kuro argid	4	97	113	105	56.33587	56.84203
		Nelson's argid	2	64	67	65	60.32141	60.66801	
		argid shrimp	48	36	135	74	55.99089	62.00043	
		giant barnacle	7	41	163	94	56.00022	58.67874	
		barnacle	19	60	160	105	56.01025	61.33545	
		Dungeness crab	1	51	51	51	55.36137	55.36137	
		Oregon rock crab	23	54	104	76	55.3307	57.49684	
		caprellid amphipod unident.	1	107	107	107	60.65598	60.65598	
		Tanner crab	320	38	174	87	54.66053	61.34008	
		hybrid Tanner crab	70	46	160	86	54.83508	61.66908	
		<i>Aphrodita negligens</i>							
		<i>Aphrodita</i> sp.							
		Aphroditidae							
		<i>Eunice valens</i>							
	<i>Eunoe depressa</i>								
	<i>Eunoe nodosa</i>								
	<i>Eunoe</i> sp.								
	Hirudinea unident.								
	<i>Carcinobdella cyclostomum</i>								
	Polychaeta								
	Polynoidae								
	<i>Serpula columbiana</i>								
	<i>Serpula</i> sp.								
	Amphipoda								
	<i>Argis ataskensis</i>								
	<i>Argis dentata</i>								
	<i>Argis lar</i>								
	<i>Argis levior</i>								
	<i>Argis</i> sp.								
	<i>Balanus evermanni</i>								
	<i>Balanus</i> sp.								
	<i>Cancer magister</i>								
	<i>Cancer oregonensis</i>								
	<i>Caprella</i> sp.								
	<i>Chionoecetes bairdi</i>								
	<i>Chionoecetes</i> hybrid								

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Crangon communis</i>	twospine crangon	46	21	159	75	54.83508	59.65304
	<i>Crangon dalli</i>	ridged crangon	52	67	149	114	56.67526	61.99196
	<i>Crangon</i> sp.	crangon	66	20	155	74	55.00087	62.00043
	<i>Dermaturus mandti</i>	stone crab	1	32	32	32	58.2832	58.2832
	<i>Elassochirus cavimanus</i>	purple hermit crab	21	69	163	120	54.83508	59.00541
	<i>Elassochirus tenuimanus</i>	widehand hermit crab	4	51	83	66	55.3307	57.32827
	<i>Erimacrus isenbeckii</i>	horsehair crab	79	25	142	58	55.36137	60.31449
	<i>Eualus barbatus</i>	barbed eualid	3	121	155	132	55.00087	57.32111
	<i>Eualus gaimardii</i>	eualid shrimp	2	68	80	74	59.99354	61.3306
	<i>Eualus macilentus</i>	Greenland shrimp	7	92	107	99	60.98025	61.99196
	<i>Eualus</i> sp.	eualid shrimp	12	60	90	76	56.34448	62.00043
	Gammaridae	gammarid amphipod unident.	2	61	74	67	60.65932	62.00026
	Hippolytidae	hippolytid shrimp unident.	2	60	135	97	55.66254	60.17987
	<i>Hyas coarctatus</i>	circumboreal toad crab	157	27	115	66	55.36137	62.00076
	<i>Hyas lyratus</i>	Pacific lyre crab	157	32	163	89	54.83508	61.01371
	<i>Labidochirus splendescens</i>	splendid hermit	141	24	163	72	54.83508	62.00076
	<i>Lebbeus groenlandicus</i>	spiny lebbeid	1	75	75	75	60.02145	60.02145
	<i>Lebbeus polaris</i>	Polar lebbeid shrimp	1	101	101	101	56.84203	56.84203
	<i>Lebbeus</i> sp.	lebbeid shrimp	1	64	64	64	60.32141	60.32141
	<i>Oregonia gracilis</i>	graceful decorator crab	55	33	159	70	54.83508	58.01527
	Paguridae	hermit crab unident.	1	140	140	140	56.99805	56.99805
	<i>Pagurus aleuticus</i>	Aleutian hermit crab	138	51	160	102	54.83508	61.66207
	<i>Pagurus brandti</i>	sponge hermit crab	4	60	73	66	55.82258	57.68237
	<i>Pagurus capillatus</i>	hairy hermit crab	104	40	160	79	54.83508	59.98564
	<i>Pagurus confragosus</i>	knobbyhand hermit crab	95	69	163	107	54.83508	59.99217
	<i>Pagurus cornutus</i>	hornyhand hermit crab	2	84	103	93	58.32402	58.34487
	<i>Pagurus ochotensis</i>	Alaskan hermit crab	108	20	93	46	55.36137	60.33934
	<i>Pagurus rathbuni</i>	longfinger hermit crab	107	46	174	98	56.97317	62.00076
	<i>Pagurus</i> sp.	hermit crab	2	53	63	58	56.3253	57.65582

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Pagurus trigonocheirus</i>	fuzzy hermit crab	208	36	174	84	54.83508	62.00076
	<i>Pandalus borealis</i>	northern shrimp	121	53	174	119	54.83508	61.66207
	<i>Pandalus goniurus</i>	humpy shrimp	99	29	135	78	55.33625	62.00076
	<i>Pandalus jordani</i>	ocean shrimp	1	59	59	59	57.65904	57.65904
	<i>Pandalus tridens</i>	yellowleg pandalid	8	72	160	104	55.98359	58.6622
	<i>Paralithodes camtschaticus</i>	red king crab	137	24	94	56	55.3307	60.32096
	<i>Paralithodes platypus</i>	blue king crab	36	46	110	81	56.98672	61.00002
	Polyplacophora unident.	chiton unident.	1	60	60	60	60.17987	60.17987
	<i>Spirontocaris arcuata</i>	Rathbun blade shrimp	3	64	91	76	60.02145	60.34048
	<i>Spirontocaris lamellicornis</i>	isopod	4	60	88	69	59.32817	60.31706
	<i>Telmessus cheiragonus</i>	helmet crab	27	20	51	33	58.01527	60.33934
	Thoracica	barnacle unident.	20	32	110	62	56.00937	60.67076
	Ascidian unident.	tunicate unident.	12	33	138	70	57.32484	62.00043
	<i>Styela rustica</i>	sea potato	92	26	90	60	56.34448	60.99905
	brachiopod unident.	lampshell unident.	2	65	163	114	57.65685	58.34685
	<i>Alcyonidium pedunculatum</i>	bryozoan	1	107	107	107	59.83813	59.83813
	Bryozoa unident.	bryozoan unident.	31	34	160	73	56.00937	61.3306
	<i>Bugula californica</i>	bryozoan	1	60	60	60	60.31706	60.31706
	<i>Dendrobeatia</i> sp.	bryozoan	1	91	91	91	60.34048	60.34048
	<i>Flustra serrulata</i>	leafy bryozoan	9	36	160	72	56.32369	60.32096
	<i>Flustrellidra corniculata</i>	bryozoan	1	91	91	91	60.34048	60.34048
	<i>Leteschara orientalis</i>	bryozoan	1	60	60	60	60.31706	60.31706
	<i>Rhamphostomella costata</i>	ribbed bryozoan	16	41	150	81	54.66053	59.01813
	Actiniaria	hydroid unident.	30	34	150	64	56.01025	61.32231
	Actinostolidae	sea anemone unident.	44	33	148	81	55.00626	62.00026
	<i>Aequorea</i> sp.	sea anemone	2	91	149	120	59.33041	60.34048
	Alcyonacea	jellyfish	12	121	149	134	57.32111	60.99626
	<i>Aurelia</i> sp.	soft coral unident.	1	93	93	93	56.00022	56.00022
		jellyfish	4	54	75	66	57.98595	58.66684

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Bathypelia australis</i>	hot dog sea anemone	1	163	163	163	58.34685	58.34685
	<i>Chrysaora melanaster</i>	lion's mane jellyfish	214	33	160	84	54.66053	62.00076
	<i>Chrysaora</i> sp.	chrysaora jellyfish	1	62	62	62	57.00459	57.00459
	<i>Cribrinopsis fernaldi</i>	chevron-tentacled anemone	3	106	155	126	55.00087	57.65531
	<i>Cyanea capillata</i>	lion's mane	24	49	142	90	56.34053	58.67876
	<i>Gersemia rubiformis</i>	sea raspberry	37	31	86	53	56.33765	60.33048
	<i>Gersemia</i> sp.	sea raspberry	42	28	161	63	56.65521	62.00076
	<i>Halipteris</i> sp.	sea whip	4	109	155	127	55.00087	57.35653
	<i>Halipteris willemoesi</i>	sea whip	5	100	136	120	54.99203	56.99824
	<i>Liponema brevicornis</i>	tentacle-shedding anemone	53	34	163	121	54.99711	59.33041
	<i>Metridium farcimen</i> (= <i>Metridium giganteum</i>)	gigantic anemone	54	32	159	74	54.83508	58.34514
	<i>Metridium</i> sp.	sea anemone	21	27	149	80	56.66487	60.33934
	<i>Phacellophora camtschatica</i>	egg yolk jellyfish	1	119	119	119	55.32735	55.32735
	<i>Phacellophora</i> sp.	jellyfish	1	108	108	108	57.67501	57.67501
	Scyphozoa	jellyfish unident.	40	34	155	83	55.00087	61.67003
	<i>Stomphia coccinea</i>	swimming anemone	21	67	120	88	54.99203	58.676
	<i>Stomphia</i> sp.	sea anemone	72	32	174	112	54.99711	61.99196
	<i>Stylasterina</i> unident.	hydrocoral unident.	2	81	83	82	61.00002	62.00043
	<i>Urticina columbiana</i>	sea anemone	1	96	96	96	56.01255	56.01255
	<i>Urticina crassicornis</i>	mottled anemone	12	33	109	69	55.3307	58.33844
	Virgularidae	sea whip unident.	7	95	148	121	56.33333	60.01427
		sand dollar unident.	1	154	154	154	58.67874	58.67874
	<i>Allocentrotus fragilis</i>	orange-pink sea urchin	1	136	136	136	55.67682	55.67682
	<i>Amphiophiura nodosa</i>	brittlestar	1	58	58	58	57.98668	57.98668
	<i>Asterias amurensis</i>	purple-orange sea star	248	20	160	65	55.0516	60.99105
	<i>Asteroidea</i> unident.	starfish unident.	1	60	60	60	60.17987	60.17987
	<i>Asteronyx loveni</i>	serpent sea star	1	135	135	135	56.67088	56.67088
	<i>Ceramaster japonicus</i>	red bat star	2	136	155	145	55.00087	55.67682
	<i>Ceramaster patagonicus</i>	orange bat sea star	1	159	159	159	54.83508	54.83508

Echinodermata

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Crossaster borealis</i>	grooved sea star	4	41	85	67	55.3307	59.99354
	<i>Crossaster papposus</i>	rose sea star	25	46	159	78	54.83508	60.67076
	<i>Ctenodiscus crispatus</i>	common mud star	80	80	161	121	54.99203	61.66207
	<i>Cucumaria fallax</i>	sea football	32	33	109	69	55.33625	57.98581
	<i>Cucumaria</i> sp.	sea football	1	69	69	69	57.4872	57.4872
	<i>Diplopteraster multipes</i>	pincushion sea star	7	135	163	145	56.01025	58.73946
	<i>Dipsacaster borealis</i>	northern sea star	4	121	163	146	54.83508	58.73946
	<i>Dipsacaster</i> sp.	northern sea star	1	140	140	140	56.99805	56.99805
	<i>Echinarachnius parma</i>	parma sand dollar	13	33	130	64	55.0516	60.17987
	<i>Evasterias echinosoma</i>	giant sea star	21	41	163	66	55.66912	60.99905
	<i>Evasterias</i> sp.	giant sea star	1	33	33	33	57.32781	57.32781
	<i>Evasterias troschelii</i>	mottled sea star	2	49	61	55	57.18779	57.33289
	<i>Gorgonocephalus eucnemis</i>	basketstar	229	38	163	84	54.83508	62.00076
	<i>Henricia beringiana</i>	Bering Henricia	2	67	140	103	56.99805	60.66801
	<i>Henricia leviuscula</i>	blood sea star	2	136	160	148	56.32369	58.67202
	<i>Henricia</i> sp.	sea star	38	45	163	101	54.83508	60.66801
	Holothuroidea unident.	sea cucumber unident.	3	60	107	78	55.67545	60.66801
	<i>Leptasterias arctica</i>	Arctic sea star	74	40	129	73	56.3487	61.99196
	<i>Leptasterias coei</i>	red banded sea star	1	67	67	67	57.6541	57.6541
	<i>Leptasterias groenlandica</i>	(no common name)	26	63	163	103	57.65531	62.00076
	<i>Leptasterias polaris</i>	Polar sea star	142	41	174	94	56.34711	62.00076
	<i>Leptasterias</i> sp.	sea star	11	46	117	72	58.01474	62.00043
	<i>Leptychaster anomalus</i>	pentagonal sand star	5	109	135	120	56.67088	57.99001
	<i>Lethasterias nanimensis</i>	blackspined sea star	77	49	163	87	55.67682	60.34048
	<i>Molpadia</i> sp.	sea cucumber	2	69	137	103	56.07771	56.99976
	<i>Odontohenricia</i> sp.	sea star	3	136	160	148	55.67682	56.32369
	<i>Ophiacantha</i> sp.	brittlestar	1	64	64	64	60.32141	60.32141
	<i>Ophiopholis aculeata</i>	ubiquitous brittle star	4	136	143	138	58.66928	59.00634
	<i>Ophiopholis</i> sp.	brittlestar	1	160	160	160	56.32369	56.32369

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Ophiura sarsi</i>	notched brittlestar	97	46	159	84	54.83508	62.00076
	<i>Pedicellaster magister</i>	majestic sea star	2	130	143	136	58.73946	58.99234
	<i>Pentamera lissoplaca</i>	crescent sea cucumber	1	71	71	71	57.6593	57.6593
	<i>Pseudarchaster alascensis</i>	Alaskan scarlet star	1	80	80	80	56.66548	56.66548
	<i>Pseudarchaster parelii</i>	scarlet sea star	11	101	163	135	54.83508	58.99234
	<i>Psolus fabricii</i>	brownscaled sea cucumber	1	60	60	60	60.31706	60.31706
	<i>Psolus</i> sp.	scaled sea cucumber	2	64	75	69	60.02145	60.32141
	<i>Pteraster militaris</i>	wrinkled star	3	96	163	133	56.34053	58.34685
	<i>Pteraster obscurus</i>	obscure sea star	58	60	161	105	56.34053	61.01371
	<i>Pteraster tessellatus</i>	sea star	4	76	159	117	54.83508	58.67874
	<i>Solaster endeca</i>	northern sun sea star	1	80	80	80	56.66548	56.66548
	<i>Solaster</i> sp.	sea star	1	64	64	64	60.32141	60.32141
	<i>Strongylocentrotus droebachiensis</i>	green sea urchin	116	39	174	99	55.3307	62.00076
	<i>Strongylocentrotus polyacanthus</i>	(no common name)	1	159	159	159	54.83508	54.83508
	<i>Strongylocentrotus</i> sp.	sea urchin	6	34	160	94	55.0516	58.676
	<i>Synallactes challengerii</i>	sea cucumber	1	163	163	163	58.34685	58.34685
Echiura	Echiura	echiuroid worm unident.	3	32	58	41	59.68687	60.33268
Hemithyridae	Hemithyridae	hemithyrid brachiopods	1	60	60	60	60.31706	60.31706
Mollusca		dorid nudibranch unident.	4	64	142	87	56.34053	60.66801
		limpet unident.	1	90	90	90	56.34448	56.34448
	<i>Aforia circumata</i>	keeled aforia	28	78	160	119	55.32735	61.317
	<i>Aforia</i> sp.	aforia	6	101	147	116	55.33857	58.99046
	<i>Amicula vestita</i>	chiton	1	60	60	60	60.31706	60.31706
	<i>Arctomelon</i> sp.	gastropod	2	142	163	152	56.34053	58.34685
	<i>Arctomelon stearnsii</i>	Alaska volute	1	159	159	159	54.83508	54.83508
	<i>Benthoctopus leioderma</i>	smoothskin octopus	2	83	99	91	56.65368	56.67157
	<i>Beringius beringii</i>	Northern Bering whelk	24	38	149	97	55.00626	60.99796
	<i>Beringius frielei</i>	(no common name)	5	101	155	122	55.00087	58.67876
	<i>Beringius</i> sp.	gastropod	27	60	174	108	54.83508	61.33545

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Beringius stimpsoni</i>	(no common name)	4	55	68	60	57.67015	60.31706
	Bivalvia unident.	bivalve unident.	10	20	58	46	57.32548	59.31557
	<i>Boreotrophon alaskanus</i>	Alaskan trophon	3	71	105	86	59.66666	61.6552
	<i>Boreotrophon beringi</i>	Bering trophon	1	103	103	103	60.98736	60.98736
	<i>Boreotrophon</i> sp.	trophon	4	75	112	92	56.97317	59.49618
	<i>Buccinum angulosum</i>	angular whelk	83	39	149	90	56.66548	61.99196
	<i>Buccinum ciliatum</i>	whelk	1	67	67	67	60.66801	60.66801
	<i>Buccinum oedematum</i>	swollen whelk	6	60	94	79	58.33501	60.31706
	<i>Buccinum plectrum</i>	sinuous whelk	30	39	154	106	56.00022	61.66207
	<i>Buccinum polare</i>	polar whelk	85	40	149	79	56.32316	62.00076
	<i>Buccinum scalariforme</i>	ladder whelk	105	46	163	95	55.3307	61.99196
	<i>Buccinum solenum</i>	whelk	1	97	97	97	56.67382	56.67382
	<i>Buccinum</i> sp.	whelk	26	41	160	79	56.31375	60.99796
	<i>Chlamys rubida</i>	reddish scallop	1	73	73	73	56.99219	56.99219
	<i>Chlamys</i> sp.	scallop	8	41	160	85	55.67895	60.02145
	<i>Clinocardium californiense</i>	California cockle	1	58	58	58	59.68771	59.68771
	<i>Clinocardium ciliatum</i>	hairy cockle	25	65	97	81	56.97317	61.99196
	<i>Clinocardium nuttallii</i>	Nuttall cockle	9	60	142	91	59.00634	61.65335
	<i>Clinocardium</i> sp.	cockle	4	89	121	104	56.33333	61.66207
	<i>Colus herendeenii</i>	thin-ribbed whelk	12	77	163	125	56.99824	59.33041
	<i>Colus</i> sp.	whelk	22	55	136	90	55.32735	61.3306
	<i>Colus spitzbergensis</i>	thick-ribbed whelk	1	67	67	67	57.84283	57.84283
	<i>Crepidula grandis</i>	great slippersnail	1	60	60	60	60.31706	60.31706
	<i>Crepidula</i> sp.	slipper shell	1	80	80	80	59.34651	59.34651
	<i>Cryptonatica (=Natica) aleutica</i>	Aleutian moonsnail	2	92	112	102	60.32367	61.99196
	<i>Cryptonatica</i> sp.	moonsnail	6	45	107	85	57.65219	60.65598
	<i>Cyclocardia crassidens</i>	thick carditid	1	60	60	60	60.31706	60.31706
	<i>Cyclocardia crebricostata</i>	many-rib cyclocardia	5	29	49	35	57.32781	59.65304
	<i>Cyclocardia</i> sp.	bivalve	1	38	38	38	58.68161	58.68161

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Euspira (=Polinices) pallidus</i>	pale moonsnail	20	61	96	75	58.98954	62.00076
	<i>Fusiriton oregonensis</i>	Oregon triton	91	51	174	114	54.66053	60.65598
	gastropod eggs	snail eggs	175	26	174	80	54.99203	62.00076
	Gastropod unident.	snail unident.	1	95	95	95	56.01322	56.01322
	<i>Hiatella arctica</i>	Arctic hiatella	5	33	74	62	57.32781	59.32264
	<i>Loligo opalescens</i>	California market squid	1	142	142	142	56.34053	56.34053
	<i>Macoma nasuta</i>	bent-nose macoma	2	47	47	47	57.99659	58.31951
	<i>Macoma</i> sp.	clam	5	33	84	52	57.18779	58.32402
	<i>Mactromeris polynyma</i>	Arctic surfclam	59	20	83	49	55.67498	60.99905
	<i>Margarites</i> sp.	clam	1	64	64	64	60.32141	60.32141
	<i>Modiolus modiolus</i>	northern horse mussel	1	93	93	93	58.66635	58.66635
	<i>Musculus discors</i>	discordant mussel	18	41	75	64	55.36137	60.99905
	<i>Musculus</i> sp.	mussel	1	74	74	74	61.32231	61.32231
	Mytilidae	mussel unident.	3	28	71	43	56.00937	59.60424
	<i>Mytilus edulis</i>	blue mussel	1	32	32	32	58.34965	58.34965
	<i>Natica russa</i>	rusty moonsnail	22	34	122	80	57.68336	62.00043
	Naticidae eggs	moonsnail eggs unid.	21	60	94	75	58.6622	62.00076
	<i>Neptunea amianta</i>	whelk	1	163	163	163	58.34685	58.34685
	<i>Neptunea borealis</i>	whelk	42	41	147	71	55.32735	61.66908
	<i>Neptunea heros</i>	whelk	125	31	107	64	56.3319	62.00076
	<i>Neptunea lyrata</i>	lyre whelk	100	45	160	96	55.32735	60.33686
	<i>Neptunea magna</i>	helmet whelk	60	60	146	95	56.32316	61.67003
	<i>Neptunea pribiloffensis</i>	Pribilof whelk	145	45	174	110	55.00087	61.66207
	<i>Neptunea</i> sp.	whelk	14	60	136	104	56.6656	61.66207
	<i>Neptunea</i> sp. D (Clark & McLean)	whelk	3	72	102	83	56.68484	59.50238
	<i>Neptunea ventricosa</i>	fat whelk	133	27	159	67	54.83508	61.66908
	<i>Nuculana pernula</i>	northern nutclam	1	96	96	96	61.65335	61.65335
	Nudibranchia unident.	nudibranch unident.	47	59	142	90	56.67088	62.00076
	Octopodidae	octopus unident.	3	73	106	91	56.32316	56.6595

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
	<i>Octopus dofleini</i>	giant octopus	22	72	154	118	55.3307	61.66207
	<i>Octopus</i> sp.	octopus	5	71	104	82	55.35265	62.00026
	<i>Panomya norvegica</i>	awning clam	1	33	33	33	57.32781	57.32781
	<i>Patinopecten caurinus</i>	weathervane scallop	18	67	122	102	55.0516	57.33099
	<i>Plicifusus oceanodromae</i>	seahorse whelk	2	64	149	106	59.33041	60.32141
	<i>Plicifusus griseus</i>	gray whelk	1	76	76	76	56.67264	56.67264
	<i>Plicifusus kroyeri</i>	whelk	53	59	174	108	56.01025	61.34008
	<i>Plicifusus</i> sp.	whelk	7	75	160	122	56.32369	60.65818
	<i>Pododesmus macroschisma</i>	Alaska falsejingle	2	64	75	69	60.02145	60.32141
	<i>Pododesmus</i> sp.	jingleshell	1	71	71	71	57.32703	57.32703
	<i>Pyrulofusus deformis</i>	warped whelk	37	58	163	91	55.67895	60.31706
	<i>Pyrulofusus melonis</i>	whelk	16	69	150	117	55.00626	59.33181
	<i>Pyrulofusus</i> sp.	whelk	2	113	117	115	60.99796	61.34008
	<i>Rossia pacifica</i>	eastern Pacific bobtail	3	121	142	132	56.33333	56.67088
	<i>Saxidomus giganteus</i>	butter clam	5	89	122	99	59.66666	61.99196
	<i>Serripes groenlandicus</i>	Greenland cockle	39	33	119	66	55.36137	61.67003
	<i>Serripes laperosii</i>	broad cockle	5	29	73	48	57.50341	60.33934
	<i>Serripes notabilis</i>	oblique smoothcockle	11	93	161	111	56.99805	61.65335
	<i>Serripes</i> sp.	cockle	5	55	136	97	55.65903	59.66747
	<i>Siliqua alta</i>	Alaska razor	11	20	47	31	57.99659	59.33778
	<i>Siliqua patula</i>	Pacific razor	1	47	47	47	58.31951	58.31951
	<i>Tellina lutea</i>	Alaska great-tellin	23	31	74	45	56.68611	62.00026
	<i>Tellina</i> sp.	clam	1	61	61	61	60.65932	60.65932
	<i>Tritonia diomedea</i>	rosy tritonia	8	58	121	81	56.33333	60.01437
	<i>Tritonia</i> sp.	nudibranch	4	28	136	69	55.67682	59.60424
	<i>Volutopsius fragilis</i>	fragile whelk	6	58	160	81	56.32369	58.33501
	<i>Volutopsius</i> sp.	whelk	72	58	163	108	55.32735	61.34008
	<i>Volutopsius trophonius</i>	frilled whelk	1	102	102	102	59.50238	59.50238
	<i>Yoldia hyperborea</i>	northern yoldia	1	26	26	26	59.32823	59.32823
Nemertea	Nemertea	nemertean worm unident.	10	63	130	83	57.6541	62.00076

Appendix A Table 2. -- Continued.

Grouping	Scientific name	Common name	Number stations present	Bottom depth (m)			Latitude range	
				Min. depth	Max. depth	Avg. depth	Southern	Northern
Other		empty bivalve shells	270	20	163	76	54.99203	62.00043
Other		empty gastropod shells	315	20	174	83	54.83508	62.00043
Other		unsorted catch and debris	43	37	91	58	55.77688	58.01527
Other	Polychaete tubes	polychete	6	86	155	116	55.00087	60.66558
Platyhelminthidae	Platyhelminthes	flatworm unident.	1	97	97	97	56.67382	56.67382
Porifera		vase sponge unident.	2	71	80	75	57.6748	59.82041
	<i>Aphrocallistes vastus</i>	clay pipe sponge	2	32	160	96	56.32369	58.2832
	<i>Latrunculia</i> sp. A (Clark 2006)	green papillate sponge	1	130	130	130	56.31375	56.31375
	<i>Mycale loveni</i>	tree sponge	1	142	142	142	56.34053	56.34053
	<i>Polymastia fluegeli</i>	Flugel's nipples sponge	1	163	163	163	58.34685	58.34685
	Porifera	sponge unident.	80	33	163	82	54.83508	60.67076
	<i>Suberites</i> sp.	sponge	1	83	83	83	55.99331	55.99331
Sipuncula	Sipuncula	peanut worm unid.	2	96	121	108	57.32111	58.34083
Tunicata		compound ascidian unident.	25	33	91	58	56.3253	60.34048
	<i>Amaroucium soldatovi</i>	ascidian	12	68	77	71	57.34849	58.65915
	<i>Aplidium californicum</i>	tunicate unident.	1	46	46	46	58.32026	58.32026
	<i>Aplidium</i> sp.	sea glob	55	34	79	55	56.00937	60.33048
	<i>Boltonia ovifera</i>	tunicate unident.	109	26	110	56	55.0516	60.66801
	<i>Halocynthia aurantium</i>	sea peach	44	41	77	68	56.68611	60.66801
	<i>Molgula griffithsi</i>	sea grape	5	67	149	125	58.66736	60.66801
	Thaliacea unident.	salp unident.	36	53	174	115	56.99805	61.66207

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Appendix B: Station Data, 2008 Eastern Bering Sea Trawl Survey

Appendix B contains station data by vessel for the 375 successfully completed standard survey stations. In using the tables, the following should be noted:

1. Time represents the nearest hour and minute at the start of the haul.
2. Haul numbers are not always sequential because unsatisfactory hauls were omitted.
3. All longitudes are in the Western Hemisphere and latitudes in the Northern Hemisphere. Starting and ending positions for each haul are displayed as degrees and decimal minutes.
4. Net measured codes are as follows:
 - Y = Net width was measured by net mensuration gear.
 - N = Net width was estimated from a function of wire out or wire out.
5. Catch weights are displayed in total kilograms

List of Tables

Appendix B Table 1 – Haul data for stations sampled by the FV *Arcturus*.

Appendix B Table 2 – Haul data for stations sampled by the FV *Aldebaran*.

Appendix B Table 1. -- Haul and catch data for successfully completed tows by FV *Arcturus* during the 2008 eastern Bering Sea bottom trawl survey.

Station	G-15	H-15	I-15	K-14	K-13	J-13	I-13	H-13	G-13	F-12	E-12
Start date and time	6/4/08 9:38	6/4/08 13:26	6/4/08 16:02	6/5/08 7:02	6/5/08 9:42	6/5/08 12:28	6/5/08 14:55	6/5/08 17:36	6/6/08 6:35	6/6/08 10:19	6/6/08 13:15
Haul number	2	3	4	5	6	7	8	9	10	11	12
Start latitude	5702.30	5719.94	5738.75	5821.21	5817.04	5800.16	5741.43	5720.26	5700.89	5640.13	5621.12
Start longitude	16052.35	16056.26	16059.42	16026.47	16001.74	16147.47	16143.45	16142.06	16141.44	16101.14	16100.80
End latitude	5701.80	5721.33	5739.90	5819.75	5815.53	5758.68	5739.99	5719.31	5659.74	5639.20	5620.17
End longitude	16049.69	16055.42	16057.55	16027.19	16002.39	16147.57	16143.57	16139.61	16139.53	16259.04	16258.87
Bottom depth (m)	36	50	47	27	43	52	55	61	64	69	56
Duration (h)	0.50	0.50	0.50	0.53	0.51	0.50	0.50	0.51	0.51	0.51	0.50
Distance fished (km)	2.85	2.71	2.84	2.79	2.88	2.74	2.67	3.03	2.87	2.75	2.65
Net width (m)	14.99	15.67	15.88	15.03	14.99	16.28	16.15	15.28	16.44	16.89	15.68
Net measured?	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	6.21	0	0	0	0	0	6.21
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	53.64	5.34	--	--	11.07	11.50	9.72	2.58	5.40	15.28	23.78
Sharks	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	53.64	5.34	--	--	11.07	11.50	9.72	2.58	5.40	15.28	23.78
Alaska plaice	0.69	1.47	0.36	44.27	36.10	88.85	41.51	6.76	2.86	88.57	177.98
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	22.99
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	16.60	4.96	2.74	7.43	12.20	65.68	31.99	24.25	28.52	22.63	14.39
Rock sole	1353.24	942.43	151.82	279.48	261.08	405.54	553.87	417.36	322.55	452.74	1585.68
Yellowfin sole	852.27	353.77	179.08	875.91	926.87	558.70	334.82	263.83	184.19	253.67	1192.96
Other flatfish	352.20	36.81	5.65	61.88	61.57	82.04	31.43	35.22	23.06	17.80	57.54
Total flatfish	2575.00	1339.43	339.65	1268.95	1297.82	1200.81	993.61	747.42	561.18	835.41	3051.55
Walleye pollock	0.01	0.57	0.24	0.01	0.01	--	6.48	0.30	20.54	156.82	273.37
Pacific cod	4.53	36.34	0.22	--	0.04	--	0.17	6.23	9.02	35.22	76.88
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	--
Pacific herring	--	--	0.16	--	--	--	--	0.26	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	34.49	5.75	10.78	39.39	44.32	7.56	2.75	13.12	2.42	3.51	39.24
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Total roundfish	1.38	5.70	3.67	4.88	5.45	2.13	0.80	1.15	1.45	3.08	1.06
Other roundfish	40.40	48.35	15.08	44.28	49.82	9.69	10.20	21.06	33.43	198.63	390.55
Blue king crab	--	--	--	--	--	--	--	--	--	--	--
Red king crab	4.62	22.15	--	1.76	2.85	27.02	4.84	36.27	90.94	218.10	234.02
Tanner crab, Bairdi	--	--	--	--	--	--	--	1.24	3.56	12.94	3.88
Tanner crab, Opilio	--	--	--	--	--	--	--	--	--	--	--
Other crab	1.09	0.34	0.24	--	0.28	0.97	0.28	3.57	5.77	3.78	2.51
Shrimp	--	0.01	--	0.13	0.10	0.01	--	--	--	--	--
Octopus	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	--	0.50	--	--	--	0.31	0.91	5.92	0.17	0.44	2.38
Starfish	210.38	398.52	102.09	105.24	124.95	296.52	415.25	100.38	196.44	52.28	206.07
Other invertebrates	2.59	16.87	17.16	7.37	2.56	17.00	20.77	85.08	125.47	108.15	70.97
Total invertebrate	218.68	438.39	119.50	114.50	130.73	341.83	442.05	232.45	422.35	395.69	519.83
Miscellaneous	0.28	0.48	3.40	0.27	0.47	0.17	0.25	3.98	0.83	--	6.13
Total catch	2888.00	1832.00	477.63	1428.00	1490.00	1564.00	1462.00	1010.82	1029.87	1456.00	4010.00

Appendix B Table 1. -- Continued.

Station	E-11	F-11	G-11	H-11	I-11	J-11	I-10	I-09	H-09	G-09	F-08	F-09	E-09
Start date and time	6/6/08 16:51	6/7/08 6:36	6/7/08 9:18	6/7/08 11:47	6/7/08 14:12	6/8/08 6:41	6/8/08 9:44	6/8/08 12:16	6/8/08 15:00	6/8/08 17:27	6/9/08 6:40	6/9/08 9:03	6/9/08 11:41
Haul number	14	15	16	17	18	22	23	24	25	26	27	28	29
Start latitude	5619.96	5639.95	5659.25	5719.98	5739.61	5755.83	5740.52	5740.08	5720.44	5659.98	5640.13	5639.79	5620.53
Start longitude	16221.81	16224.13	16226.00	16228.03	16230.28	16233.54	16352.25	16315.72	16314.83	16313.15	16436.37	16310.24	16312.15
End latitude	5619.56	5641.44	5700.68	5721.44	5741.09	5756.38	5739.02	5740.13	5719.36	5658.45	5639.77	5639.75	5619.06
End longitude	16224.44	16223.78	16226.20	16228.49	16230.44	16234.66	16351.53	16312.88	16313.06	16312.92	16439.02	16312.85	16311.94
Bottom depth (m)	64	88	70	57	54	42	48	46	51	61	76	72	79
Duration (h)	0.52	0.50	0.50	0.50	0.51	0.26	0.51	0.51	0.48	0.51	0.51	0.50	0.50
Distance fished (km)	2.82	2.78	2.67	2.75	2.75	1.51	2.87	2.84	2.68	2.86	2.80	2.75	2.75
Net width (m)	16.29	16.45	17.02	16.37	16.12	16.05	16.24	15.94	17.36	16.41	16.49	16.97	16.58
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Performance	0	0	0	6.21	0	6.00	0	0	0	0	0	6.21	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44	44
Skates	10.38	9.98	21.94	27.58	10.34	16.28	30.96	12.88	14.74	11.93	37.04	15.28	4.60
Sharks	--	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	10.38	9.98	21.94	27.58	10.34	16.28	30.96	12.88	14.74	11.93	37.04	15.28	4.60
Alaska plaice	6.88	85.01	159.40	100.46	148.72	28.46	62.57	51.99	70.12	203.14	17.22	184.86	124.98
Arrowtooth flounder	10.10	--	--	--	--	--	--	--	--	0.47	0.39	15.66	21.35
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	17.85	14.44	43.23	31.28	14.56	29.94	45.51	67.55	10.23	17.44	14.21	11.47	7.06
Rock sole	476.02	172.50	615.12	365.36	426.81	232.52	390.00	383.64	249.09	262.83	70.61	326.31	176.68
Yellowfin sole	245.78	391.88	379.55	419.40	969.84	158.41	583.73	247.25	184.32	391.38	329.36	619.06	922.71
Other flatfish	111.07	1.77	--	--	1.68	32.09	5.61	4.12	--	--	--	--	--
Total flatfish	867.71	665.59	1197.31	916.51	1561.60	481.42	1087.41	754.56	513.76	875.26	431.79	1157.36	1252.77
Walleye pollock	190.56	44.42	24.27	41.02	2.86	0.06	6.69	5.67	8.17	65.28	20.09	108.07	287.65
Pacific cod	10.22	10.87	12.32	9.82	30.73	0.07	27.22	279.12	38.36	52.49	20.58	79.26	26.52
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	0.17	--	--
Pacific herring	0.36	--	--	--	1.58	0.54	--	3.93	--	--	0.34	5.97	2.00
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	58.46	4.05	6.16	6.32	9.04	2.22	6.41	4.04	--	10.92	1.78	12.09	2.25
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	0.60	5.78	2.80	1.69	1.04	1.76	1.92	1.00	1.11	4.06	1.13	2.09	1.34
Total roundfish	260.21	65.11	45.54	58.85	45.25	4.65	42.25	293.76	47.64	132.75	44.11	207.48	319.76
Blue king crab	60.54	173.37	38.11	56.25	37.38	24.04	37.42	46.28	9.95	20.54	6.32	164.61	7.83
Red king crab	0.64	14.79	2.38	--	0.27	--	--	--	--	3.44	7.06	14.90	19.84
Tanner crab, Bairdi	0.49	2.78	--	--	0.27	--	--	--	--	1.28	1.08	1.73	1.70
Tanner crab, Opilio	1.11	16.23	1.81	1.24	0.45	2.31	1.58	5.04	7.50	2.37	44.22	16.46	11.75
Other crab	--	0.10	--	0.01	--	--	0.00	--	--	--	0.01	--	--
Shrimp	--	--	--	--	--	--	--	--	--	--	--	--	--
Octopus	--	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--	--
Snails	1.36	20.02	--	3.54	2.66	1.19	0.50	5.18	1.76	10.20	72.04	7.46	16.75
Starfish	7.28	15.91	5.70	1.55	387.87	94.16	165.47	332.31	133.22	47.12	22.48	3.62	--
Other invertebrates	49.50	1910.87	52.47	71.26	40.52	1.47	12.62	12.84	18.04	3.03	78.89	40.94	45.93
Total invertebrates	120.93	2154.07	100.47	133.85	469.44	123.16	217.59	401.66	170.46	87.97	232.10	249.72	103.80

Appendix B Table 1. -- Continued.

Station	D-09	C-09	C-07	D-07	E-07	F-07	G-07	G-08	H-08	I-08	J-08	J-09
Start date and time	6/9/08 14:26	6/9/08 17:08	6/10/08 11:25	6/10/08 14:12	6/11/08 6:51	6/11/08 9:21	6/11/08 11:53	6/11/08 14:33	6/11/08 16:53	6/12/08 6:58	6/12/08 9:39	6/12/08 12:13
Haul number	30	31	33	34	36	37	38	39	40	41	42	43
Start latitude	5559.88	5540.44	5541.46	5600.21	5620.15	5639.68	5659.73	5700.98	5718.91	5739.49	5758.86	5800.66
Start longitude	16311.84	16311.43	16559.66	16403.66	16401.86	16559.03	16557.63	16432.50	16436.77	16438.70	16436.07	16312.71
End latitude	5558.40	5539.97	5542.91	5601.72	5621.63	5641.16	5701.21	5701.31	5720.30	5740.37	5759.95	5800.54
End longitude	16311.97	16308.84	16559.04	16403.75	16401.79	16558.35	16557.26	16435.23	16437.58	16436.38	16438.08	16315.48
Bottom depth (m)	81	51	94	91	86	74	69	67	55	48	44	41
Duration (h)	0.50	0.50	0.51	0.52	0.49	0.50	0.50	0.51	0.49	0.51	0.51	0.50
Distance fished (km)	2.73	2.86	2.77	2.80	2.74	2.82	2.82	2.82	2.71	2.83	2.82	2.75
Net width (m)	16.89	15.59	16.79	16.03	16.63	16.05	16.97	15.99	15.50	16.08	15.76	14.83
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	6.21
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	29.68	34.54	86.90	17.94	35.54	60.12	17.83	35.86	28.16	18.42	5.90	21.86
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	29.68	34.54	86.90	17.94	35.54	60.12	17.83	35.86	28.16	18.42	5.90	21.86
Alaska plaice	227.17	2.04	1.16	--	9.81	51.71	158.17	181.77	136.18	70.56	88.04	35.68
Arrowtooth flounder	35.25	13.64	158.66	61.88	15.11	2.15	--	--	0.48	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	9.70	24.94	8.49	4.80	8.91	9.12	1.69	4.46	15.64	37.24	15.85	49.96
Rock sole	176.43	366.15	3.99	101.21	238.05	167.66	57.76	275.70	349.44	428.65	614.11	581.77
Yellowfin sole	427.14	119.32	2.10	31.65	64.89	653.61	573.28	847.27	367.11	274.52	339.40	423.39
Other flatfish	3.69	19.09	7.28	3.98	1.39	--	--	--	--	1.43	4.12	10.91
Total flatfish	879.39	545.18	181.68	203.51	338.17	884.24	790.91	1309.19	868.85	812.41	1061.53	1101.70
Walleye pollock	279.93	420.43	26.47	190.40	132.68	94.01	1.87	98.55	65.67	2.60	3.92	1.13
Pacific cod	5.68	12.38	8.88	6.22	49.35	9.76	22.51	53.44	25.81	13.26	10.12	19.39
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	3.24	--	--	0.76	--	--	--	--	--	--
Pacific herring	--	--	--	--	--	1.47	0.41	--	0.23	0.30	--	1.16
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	43.32	2.27	0.12	--	2.13	16.38	13.42	32.93	14.30	9.84	25.43	15.61
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	1.19	1.55	0.14	1.98	2.55	1.10	0.82	0.76	2.57	0.98	1.33	2.82
Total roundfish	330.12	436.63	35.61	198.60	189.95	123.48	39.03	185.67	108.58	26.97	40.80	40.11
Blue king crab	--	--	1.42	--	2.74	16.07	9.14	5.88	21.77	13.60	5.12	26.93
Red king crab	32.16	14.30	--	--	--	--	--	--	--	--	--	--
Tanner crab, Bairdi	6.37	2.09	20.64	11.37	11.12	7.77	6.09	3.26	0.98	--	--	--
Tanner crab, Opilio	2.40	0.58	3.32	1.77	0.86	0.88	2.62	1.06	0.49	--	--	--
Other crab	4.93	2.30	139.42	62.67	166.29	45.54	29.43	4.49	6.82	34.18	14.98	9.46
Shrimp	0.01	--	0.00	--	0.01	0.01	0.07	0.01	--	--	0.00	--
Octopus	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	8.90	3.44	108.01	61.54	124.18	169.16	70.83	11.94	14.02	15.28	5.92	1.75
Starfish	1.03	249.66	29.33	--	7.10	180.97	25.80	91.13	42.34	251.16	165.07	52.11
Other invertebrates	35.77	10.11	64.88	2003.88	72.82	90.70	233.56	151.87	87.89	46.19	38.51	11.54
Total invertebrates	91.56	282.48	367.03	2141.24	385.12	511.09	377.54	269.62	174.31	360.41	229.61	101.79

Appendix B Table 1. -- Continued.

Station	K-09	K-08	L-09	L-08	N-07	M-07	L-07	K-07	J-07	I-07	H-05	G-05
Start date and time	6/12/08 15:11	6/12/08 18:00	6/13/08 6:42	6/13/08 9:05	6/13/08 15:31	6/14/08 6:43	6/14/08 9:15	6/14/08 11:58	6/14/08 14:18	6/14/08 16:57	6/15/08 6:50	6/15/08 9:24
Haul number	44	45	46	47	49	50	51	52	53	54	55	56
Start latitude	5819.70	5819.85	5838.34	5839.80	5919.39	5901.39	5840.60	5819.82	5800.72	5740.38	5720.12	5700.03
Start longitude	16314.83	16441.30	16317.35	16442.22	16559.49	16559.59	16559.25	16559.18	16558.37	16558.90	16646.25	16647.03
End latitude	5820.15	5819.50	5839.55	5839.61	5920.89	5859.87	5839.09	5818.42	5759.28	5738.98	5719.08	5658.53
End longitude	16317.63	16438.57	16315.50	16439.28	16400.04	16559.58	16559.59	16558.26	16557.69	16559.63	16644.18	16646.93
Bottom depth (m)	33	38	28	32	22	29	36	41	47	52	68	72
Duration (h)	0.51	0.50	0.52	0.51	0.51	0.52	0.50	0.49	0.51	0.50	0.50	0.50
Distance fished (km)	2.86	2.75	2.88	2.88	2.83	2.82	2.82	2.74	2.75	2.69	2.85	2.78
Net width (m)	15.24	15.62	15.24	15.08	14.39	15.07	15.06	15.26	16.00	15.75	16.62	16.62
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	6.21	0	0	0	0	0	0	4.00
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	17.00	20.50	17.29	32.94	--	16.98	32.20	42.06	19.21	7.76	28.04	11.19
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	17.00	20.50	17.29	32.94	--	16.98	32.20	42.06	19.21	7.76	28.04	11.19
Alaska plaice	44.41	25.35	4.11	148.33	39.03	46.25	27.44	30.53	62.74	55.90	108.94	35.51
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	--	0.02
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	0.16
Pacific halibut	31.90	58.84	19.26	31.22	6.54	37.93	17.16	10.89	25.66	12.71	23.53	1.69
Rock sole	842.52	775.03	710.33	648.12	166.13	319.34	422.31	316.30	303.49	277.73	33.07	32.88
Yellowfin sole	599.19	623.38	408.87	679.21	750.00	438.10	277.06	456.22	259.02	312.78	582.76	438.26
Other flatfish	45.26	8.41	336.74	66.58	54.58	33.66	13.98	--	1.23	--	--	0.02
Total flatfish	1563.27	1491.01	1479.31	1573.46	1016.28	875.27	757.95	813.93	652.14	659.12	748.29	508.54
Walleye pollock	--	3.05	--	0.04	--	0.80	5.14	5.46	9.74	26.87	38.91	17.61
Pacific cod	0.56	2.14	10.54	1.38	0.60	1.84	8.90	4.44	9.42	93.16	44.86	4.16
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	1.49	2.12
Pacific herring	1.04	0.26	0.40	--	88.65	162.69	31.02	3.22	--	0.16	0.51	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	14.80	31.28	20.21	48.77	28.87	50.23	36.36	4.09	12.93	10.56	17.58	4.69
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	1.58	2.74	2.77	2.32	1.99	3.01	1.02	2.45	0.77	0.88	0.46	0.42
Total roundfish	17.97	39.46	33.92	52.51	120.11	218.58	82.44	19.66	32.86	131.63	103.81	29.00
Blue king crab	--	--	--	--	--	--	--	--	--	--	--	--
Red king crab	1.13	3.04	3.53	10.30	--	--	3.01	2.38	6.73	1.34	2.20	--
Tanner crab, Bairdi	--	--	--	--	--	--	--	--	--	0.74	4.25	27.24
Tanner crab, Opilio	--	--	--	--	--	--	--	--	--	--	2.48	8.26
Other crab	2.38	9.19	0.69	1.08	--	2.49	7.90	22.45	17.59	26.55	13.78	36.30
Shrimp	--	--	0.01	0.01	0.01	0.00	--	--	--	0.02	0.03	0.09
Octopus	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	3.11	0.77	0.18	0.07	--	--	--	6.55	9.88	21.06	88.56	141.72
Starfish	245.75	152.67	96.69	296.69	77.55	89.37	272.12	174.72	98.85	401.61	80.21	94.27
Other invertebrates	1.19	--	0.12	1.76	0.05	0.15	1.19	23.26	75.82	65.83	110.99	118.80
Total invertebrates	253.55	165.67	101.22	309.91	77.61	92.01	284.21	229.36	208.87	517.15	302.50	426.67

Appendix B Table 1. -- Continued.

Station	F-05	E-05	D-05	C-05	B-05	A-03	B-03	C-03	D-03	D-02	E-02	F-02
Start date and time	6/15/08 12:51	6/15/08 15:25	6/16/08 6:54	6/16/08 9:32	6/16/08 12:55	6/19/08 11:37	6/19/08 14:47	6/19/08 17:25	6/20/08 7:01	6/20/08 9:45	6/20/08 12:02	6/20/08 14:37
Haul number	57	58	59	60	61	63	64	65	66	67	68	69
Start latitude	5640.67	5621.06	5600.60	5540.24	5520.09	5500.16	5519.48	5539.78	5559.65	5603.08	5619.59	5639.18
Start longitude	16646.09	16648.71	16648.60	16649.09	16649.48	16737.70	16739.37	16736.94	16737.12	16701.48	16857.89	16856.26
End latitude	5639.18	5619.61	5559.12	5538.95	5518.94	5500.08	5520.99	5541.24	5600.67	5604.35	5621.03	5640.71
End longitude	16645.67	16648.65	16648.32	16648.31	16651.11	16739.06	16738.96	16737.07	16735.32	16700.02	16857.05	16856.71
Bottom depth (m)	75	87	97	109	111	143	132	126	125	132	113	95
Duration (h)	0.51	0.49	0.50	0.45	0.50	0.27	0.51	0.50	0.49	0.50	0.50	0.52
Distance fished (km)	2.79	2.67	2.77	2.54	2.75	1.47	2.84	2.71	2.67	2.81	2.81	2.89
Net width (m)	16.67	16.98	17.17	17.61	18.07	18.27	19.63	20.01	19.19	20.01	18.15	17.74
Net measured?	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y
Performance	0	0	0	1.10	0	5.41	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	16.03	17.68	16.90	10.56	94.26	15.63	2.33	7.83	0.13	11.20	5.85	27.05
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	16.03	17.68	16.90	10.56	94.26	15.63	2.33	7.83	0.13	11.20	5.85	27.05
Alaska plaice	5.48	14.15	--	--	--	--	--	--	--	--	--	--
Arrowtooth flounder	0.03	2.00	182.61	188.09	397.19	209.39	235.39	135.53	70.03	92.65	121.86	562.82
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	0.06	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	24.17	10.91	19.76	5.33	65.33	21.18	4.86	8.94	--	14.57	5.02	31.57
Rock sole	150.52	20.25	1.25	--	0.21	--	--	--	--	--	--	30.61
Yellowfin sole	149.62	138.38	--	--	--	--	--	--	--	--	--	--
Other flatfish	1.49	1.49	5.49	2.79	7.05	5.08	9.73	9.37	7.35	6.45	11.94	5.61
Total flatfish	329.88	187.18	209.11	196.21	469.78	235.65	249.98	153.83	77.38	113.67	138.82	630.61
Walleye pollock	48.16	125.52	511.52	--	--	0.58	3.06	1.53	--	3.91	40.74	1364.62
Pacific cod	4.35	4.16	36.56	3.62	22.44	--	--	9.20	11.48	--	11.70	45.38
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	0.20	0.02	--	0.09	--	0.27	--	0.69	0.06	--	0.07	--
Pacific herring	--	0.72	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	0.45	--	--	--	--	--	--
Sculpins	2.10	--	4.22	0.74	0.34	0.52	0.16	0.46	3.00	3.79	0.21	24.14
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	0.27	0.89	0.11	0.67	0.07	--	0.08	0.50	0.28	1.64	0.98	0.24
Total roundfish	55.08	131.30	552.41	5.12	22.85	1.81	3.30	12.37	14.81	9.34	53.69	1434.37
Blue king crab	--	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, Bairdi	9.61	5.04	10.90	39.70	73.96	62.00	41.08	62.30	43.14	15.12	21.15	3.95
Tanner crab, Opilio	2.58	0.53	1.66	2.48	0.11	0.20	--	--	0.65	1.37	3.12	3.30
Other crab	36.37	30.21	99.87	20.61	13.01	0.25	0.63	0.62	5.45	3.03	9.80	6.54
Shrimp	0.01	0.00	0.03	0.02	--	1.53	0.01	0.06	0.01	0.07	--	--
Octopus	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	124.93	49.88	33.10	15.45	13.12	2.14	2.85	1.63	2.88	3.63	9.35	30.99
Starfish	55.03	8.09	0.61	0.00	0.02	--	--	0.25	0.47	1.11	0.02	--
Other invertebrates	143.89	69.93	78.53	36.12	29.95	7.51	5.70	9.75	13.06	9.62	85.41	119.08
Total invertebrates	372.42	163.68	224.70	114.38	130.17	73.63	50.26	74.61	65.66	33.96	128.85	163.86

Appendix B Table 1. -- Continued.

Station	G-02	H-02	I-02	J-02	K-02	L-02	L-03	M-03	M-02	N-03	O-02	Q-01
Start date and time	6/20/08 17:20	6/21/08 8:51	6/21/08 11:46	6/21/08 14:09	6/21/08 16:47	6/22/08 6:48	6/22/08 9:37	6/22/08 12:04	6/22/08 14:48	6/22/08 18:00	6/23/08 7:34	6/23/08 10:14
Haul number	70	71	72	73	74	75	76	77	78	79	81	82
Start latitude	5659.74	5719.42	5740.93	5759.13	5818.98	5839.15	5839.46	5859.22	5859.11	5918.68	6019.98	6020.02
Start longitude	16854.55	16853.12	16853.77	16850.29	16848.40	16846.83	16725.07	16725.43	16845.61	16723.33	16842.82	16803.28
End latitude	5701.31	5721.00	5742.39	5800.71	5820.56	5840.71	5840.80	5900.77	5900.56	5919.77	6020.33	6020.10
End longitude	16854.06	16853.43	16854.31	16850.18	16847.89	16846.55	16726.71	16725.25	16846.10	16722.91	16845.88	16800.17
Bottom depth (m)	73	71	68	64	62	43	42	34	40	29	30	31
Duration (h)	0.53	0.52	0.50	0.52	0.54	0.52	0.52	0.51	0.50	0.37	0.52	0.52
Distance fished (km)	2.95	2.94	2.76	2.94	2.76	2.90	2.95	2.87	2.74	2.07	2.90	2.87
Net width (m)	18.06	17.45	16.94	16.86	16.35	15.83	16.23	15.29	14.99	15.54	14.99	16.12
Net measured?	Y	N	Y	Y	Y	Y	N	Y	N	Y	N	Y
Performance	0	0	0	0	0	0	0	0	0	1.12	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	42.40	22.00	38.16	19.00	46.00	71.18	20.10	33.70	96.31	30.50	2.61	24.00
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	42.40	22.00	38.16	19.00	46.00	71.18	20.10	33.70	96.31	30.50	2.61	24.00
Alaska plaice	3.62	39.01	466.84	424.90	75.78	137.64	93.90	32.81	58.32	10.80	92.10	15.64
Arrowtooth flounder	1.47	--	--	--	--	--	--	--	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	2.63	5.00	0.42	17.24	22.90	41.66	41.80	28.80	13.49	53.81	8.13	52.44
Rock sole	36.74	32.65	20.47	13.84	388.76	512.56	418.36	206.15	324.87	101.32	14.38	35.96
Yellowfin sole	166.16	175.23	524.24	322.35	331.62	119.68	298.32	405.87	211.26	158.24	203.83	195.20
Other flatfish	1.47	--	--	--	--	0.52	10.97	10.97	1.75	5.61	4.49	0.73
Total flatfish	212.09	251.89	1011.97	778.32	819.06	812.05	852.38	684.60	609.69	329.78	322.93	299.97
Walleye pollock	74.91	32.15	14.86	51.16	79.80	17.51	1.76	3.83	4.65	0.18	0.10	24.85
Pacific cod	10.16	3.35	49.11	135.08	87.70	65.80	25.96	302.11	33.41	0.67	21.00	6.38
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	0.61	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	--	--
Pacific herring	--	--	--	15.73	4.78	7.63	1.61	--	16.38	115.75	75.72	15.22
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	54.69	10.79	23.13	10.83	5.74	11.78	20.56	27.84	22.80	20.03	62.15	23.05
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	0.88	2.28	0.30	0.34	3.98	3.04	2.37	1.41	5.42	1.80	18.78	16.49
Total roundfish	140.64	49.18	87.40	213.14	182.01	105.76	52.25	335.19	82.66	138.43	177.74	85.98
Blue king crab	--	--	--	--	0.62	--	--	--	--	--	0.49	--
Red king crab	--	--	--	--	2.76	0.68	8.49	4.28	2.15	1.98	0.19	2.51
Tanner crab	1.32	2.64	12.80	21.00	4.96	--	--	--	--	--	--	--
Tanner crab, bairdi	3.84	15.24	30.39	31.30	4.49	--	--	--	--	--	--	--
Other crab	47.27	57.95	30.50	72.36	22.54	27.73	5.27	3.14	8.18	0.94	3.87	--
Shrimp	0.09	0.05	0.03	--	0.04	0.01	0.02	0.04	0.01	0.03	0.64	0.03
Octopus	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	136.20	356.92	139.65	40.26	13.69	7.54	7.31	0.51	2.53	--	--	0.05
Starfish	18.37	545.62	212.46	131.86	122.72	113.49	197.72	142.60	210.52	--	17.22	36.93
Other invertebrates	78.19	563.84	282.37	217.57	63.43	9.11	25.06	3.35	16.08	1.86	0.13	--
Total invertebrates	285.28	1542.25	708.20	514.34	235.24	158.55	243.87	153.91	239.46	4.80	22.54	39.51

Appendix B Table 1. -- Continued.

Station	Q-18	Q-19	P-19	O-19	N-18	M-18	L-18	K-18	J-18	JJ1918	I-18	IH1918
Start date and time	6/23/08 12:49	6/23/08 15:12	6/23/08 17:47	6/24/08 6:46	6/24/08 10:25	6/24/08 13:02	6/24/08 15:46	6/25/08 6:49	6/25/08 9:42	6/25/08 12:11	6/25/08 15:11	6/25/08 17:19
Haul number	83	84	85	86	87	88	89	90	91	92	93	94
Start latitude	6019.99	6020.51	6000.90	5940.99	5920.96	5901.19	5840.62	5820.78	5800.41	5751.32	5740.48	5730.31
Start longitude	16920.60	17040.97	17040.25	17044.15	16925.78	16928.29	16930.31	16930.92	16934.50	16916.88	16937.47	16916.66
End latitude	6020.18	6019.98	5959.35	5939.44	5919.65	5859.70	5839.11	5819.73	5759.69	5750.52	5739.46	5729.26
End longitude	16917.56	17037.95	17040.05	17043.93	16927.47	16928.90	16930.10	16928.81	16931.93	16914.35	16935.17	16914.59
Bottom depth (m)	37	44	46	47	42	46	53	65	69	71	71	71
Duration (h)	0.51	0.53	0.52	0.51	0.52	0.52	0.51	0.51	0.52	0.54	0.54	0.51
Distance fished (km)	2.83	2.96	2.87	2.87	2.92	2.83	2.80	2.85	2.87	2.92	2.97	2.85
Net width (m)	15.44	16.10	16.18	16.29	16.86	16.64	16.35	17.08	17.12	17.55	16.95	17.16
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	6.22	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	67.20	34.70	42.70	77.70	104.10	69.90	136.61	91.10	29.10	17.50	18.30	0.17
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	67.20	34.70	42.70	77.70	104.10	69.90	136.61	91.10	29.10	17.50	18.30	0.17
Alaska plaice	76.30	321.65	194.09	532.93	108.63	153.40	270.76	302.79	16.74	30.21	28.69	46.10
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	11.28	3.76
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	0.08	--
Pacific halibut	3.69	--	2.69	--	21.30	20.46	19.90	13.57	7.60	7.07	3.45	1.69
Rock sole	152.13	138.22	152.33	51.07	260.57	208.90	356.82	34.21	50.23	3.29	107.14	79.50
Yellowfin sole	322.80	252.01	114.68	134.81	160.60	132.50	267.55	229.16	302.83	61.78	88.91	84.00
Other flatfish	0.20	--	--	--	0.13	0.25	--	--	--	--	11.28	3.20
Total flatfish	555.12	711.88	463.79	718.80	551.23	515.51	915.04	579.73	377.40	102.35	250.83	218.26
Walleye pollock	10.41	13.19	11.94	4.44	12.81	7.13	73.86	35.79	16.64	36.32	54.15	26.72
Pacific cod	52.07	5.13	38.50	4.23	57.55	19.00	121.40	77.38	194.40	25.40	5.31	13.12
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	1.85	--	--	--	--
Pacific herring	62.68	0.13	1.10	8.02	0.33	4.18	--	0.22	--	--	--	0.15
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	19.50	31.35	10.14	4.28	41.18	15.00	25.97	19.00	57.35	0.02	2.31	0.84
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	8.59	182.15	14.34	11.29	3.32	1.61	3.99	3.27	1.85	2.27	2.40	4.03
Total roundfish	153.25	231.95	76.02	32.26	115.20	46.93	225.21	137.50	270.24	64.01	64.16	44.86
Blue king crab	--	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	2.88	3.23	--	--	--	3.34	--	--	--	--
Tanner crab, Bairdi	--	--	--	0.82	--	0.22	5.27	13.80	15.20	7.53	10.30	1.15
Tanner crab, Opilio	--	0.01	0.02	1.18	0.08	0.61	7.78	34.37	5.26	46.31	18.55	3.78
Other crab	14.64	105.97	125.50	57.41	165.11	35.22	30.66	56.06	50.15	163.85	243.08	14.47
Shrimp	0.02	0.13	0.06	0.07	0.01	0.01	0.01	--	0.03	0.01	0.01	0.01
Octopus	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	10.00	39.04	4.75	6.03	1.76	7.77	43.14	75.81	42.95	43.70	1.78	0.22
Starfish	178.38	121.41	110.11	308.57	57.36	181.76	322.70	173.32	62.57	125.30	91.98	43.31
Other invertebrates	16.05	255.90	431.46	155.81	2.38	6.73	62.27	111.57	1581.40	598.61	1439.06	580.50
Total invertebrates	219.09	522.47	674.76	533.11	226.69	232.32	471.82	468.27	1757.56	985.31	1804.75	643.42

Appendix B Table 1. -- Continued.

Station	H-18	HG1918	H-19	I-19	IH2019	HG2221	H-21	IH2221	I-21	J12120	I-20	K-20
Start date and time	6/26/08 6:55	6/26/08 9:04	6/26/08 11:14	6/26/08 14:28	6/26/08 16:48	6/28/08 7:00	6/28/08 10:12	6/28/08 14:42	6/28/08 16:50	6/29/08 6:59	6/29/08 9:30	6/29/08 12:10
Haul number	95	96	97	98	99	100	101	102	103	104	105	106
Start latitude	5720.10	5709.34	5719.36	5739.03	5730.36	5706.54	5719.53	5729.71	5739.42	5749.17	5759.30	5819.78
Start longitude	16938.63	16922.28	16901.29	17058.25	17038.87	17132.94	17145.33	17125.09	17142.83	17159.06	17018.01	17015.60
End latitude	5719.17	5710.24	5720.84	5740.47	5729.15	5707.06	5720.52	5731.26	5740.10	5750.17	5800.78	5821.27
End longitude	16936.28	16919.97	16901.34	17058.89	17037.19	17130.29	17147.40	17125.02	17145.34	17001.33	17017.66	17015.05
Bottom depth (m)	74	76	70	69	71	49	55	75	73	72	69	69
Duration (h)	0.53	0.52	0.50	0.51	0.50	0.51	0.50	0.53	0.49	0.52	0.50	0.50
Distance fished (km)	2.92	2.87	2.75	2.74	2.81	2.85	2.79	2.88	2.77	2.92	2.88	2.81
Net width (m)	16.91	17.32	16.88	16.92	17.45	16.25	15.92	16.57	16.80	17.45	16.87	16.96
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	10.14	0.75	2.98	0.98	15.90	30.85	69.20	20.90	42.60	22.42	54.32	22.20
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	10.14	0.75	2.98	0.98	15.90	30.85	69.20	20.90	42.60	22.42	54.32	22.20
Alaska plaice	12.90	7.28	13.64	75.95	24.69	--	--	8.98	5.90	106.69	72.93	85.45
Arrowtooth flounder	5.67	7.98	2.77	--	3.45	30.39	13.02	95.07	27.84	--	1.35	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	3.90	7.07	3.18	--	--	33.20	102.40	--	--	--	0.64	20.50
Rock sole	125.92	122.50	727.16	44.39	123.22	843.19	8528.33	535.50	289.94	68.95	237.25	38.86
Yellowfin sole	35.08	9.91	38.63	65.34	68.50	43.61	25.16	314.12	27.27	28.91	92.98	22.28
Other flatfish	3.49	4.35	2.77	--	3.45	--	--	1.85	--	--	--	--
Total flatfish	186.96	159.09	788.14	185.68	223.32	950.38	8668.90	955.51	350.95	204.55	405.14	167.08
Walleye pollock	42.36	72.48	44.67	63.22	156.72	1.78	--	947.87	2000.09	272.86	253.71	134.93
Pacific cod	11.10	9.98	162.57	13.20	52.20	64.00	512.20	49.80	119.33	51.85	51.60	57.60
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	0.23	--	--	--	--	2.50	2.40	0.41
Eelpouts	--	--	--	--	--	--	--	--	--	--	--	2.08
Pacific herring	--	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	9.66	3.68	328.98	3.41	11.67	210.43	325.62	114.06	4.27	5.87	18.80	18.00
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Total roundfish	5.74	3.06	18.82	0.46	8.51	31.40	0.99	12.72	6.85	4.28	9.96	0.43
Blue king crab	68.85	89.20	555.04	80.30	229.33	307.61	838.81	1124.44	2130.53	337.36	336.47	213.44
Red king crab	--	--	38.46	--	1.09	--	--	--	--	--	--	--
Tanner crab, Bairdi	5.26	11.58	12.24	2.54	4.96	85.52	21.82	2.37	5.12	15.17	13.55	1.81
Tanner crab, Opilio	8.05	24.77	2.31	8.11	7.28	4.10	3.70	3.95	17.16	106.00	64.30	41.80
Other crab	50.37	17.42	5.61	44.44	40.34	55.28	2.06	237.44	135.68	177.58	87.01	27.09
Shrimp	0.02	0.01	0.58	0.19	0.19	--	--	0.01	--	--	0.02	0.04
Octopus	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	--	--	1.31	2.18	--	40.99	--	89.78	51.35	2.67	16.84	4.76
Starfish	53.30	52.54	105.15	237.43	147.93	245.63	392.53	187.71	195.49	111.29	263.25	114.26
Other invertebrates	47.89	36.60	1289.53	841.69	193.34	5.98	41.87	295.72	133.05	85.96	174.06	321.04
Total invertebrates	164.90	142.92	1455.18	1136.40	395.12	590.90	483.17	816.99	542.55	498.67	619.03	510.81

Appendix B Table 1. -- Continued.

Station	L-20	M-20	L-21	M-21	N-21	O-21	P-21	P-22	P-23	P-24	PO2625	PO2524	O-25
Start date and time	6/29/08 14:43	6/29/08 17:10	6/30/08 7:02	6/30/08 9:30	6/30/08 12:02	6/30/08 14:25	6/30/08 16:44	7/1/08 7:22	7/1/08 10:07	7/1/08 12:45	7/2/08 7:12	7/2/08 10:05	7/2/08 13:08
Haul number	107	108	109	110	111	112	113	114	115	116	119	120	121
Start latitude	5839.69	5859.12	5840.60	5859.40	5919.62	5939.37	5958.99	6000.12	6000.90	5959.59	5950.09	5949.56	5941.07
Start longitude	17013.01	17009.83	17134.24	17130.97	17128.00	17125.39	17122.14	17244.02	17201.39	17323.52	17424.74	17303.87	17443.46
End latitude	5841.21	5900.68	5842.15	5900.89	5921.11	5940.88	6000.56	6000.25	6000.21	5959.13	5949.83	5950.70	5939.98
End longitude	17013.17	17010.06	17133.97	17130.38	17127.19	17124.95	17122.28	17241.00	17203.26	17326.44	17427.94	17305.65	17445.64
Bottom depth (m)	67	64	73	71	68	66	65	69	65	66	95	79	94
Duration (h)	0.52	0.52	0.52	0.51	0.51	0.51	0.53	0.50	0.39	0.52	0.55	0.49	0.52
Distance fished (km)	2.83	2.89	2.89	2.81	2.87	2.83	2.91	2.82	2.17	2.86	3.03	2.69	2.88
Net width (m)	16.46	16.72	17.65	17.77	17.81	17.84	17.97	18.21	17.82	17.73	17.92	17.82	17.93
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	6	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44	44
Skates	32.50	43.30	31.04	42.40	56.30	47.90	20.40	51.40	20.70	11.40	100.40	27.46	69.80
Sharks	--	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	32.50	43.30	31.04	42.40	56.30	47.90	20.40	51.40	20.70	11.40	100.40	27.46	69.80
Alaska plaice	604.06	542.32	26.40	8.28	15.95	17.61	47.30	29.36	16.10	23.80	23.42	11.36	1.90
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	0.12	--	--	--	0.10	--	0.01	--	--	--	0.23	0.01	0.07
Pacific halibut	1.84	8.53	9.08	1.15	--	2.03	--	6.00	--	0.73	0.53	0.36	11.90
Rock sole	30.08	8.38	37.80	4.45	4.46	1.64	1.16	8.88	10.20	16.50	29.51	43.30	24.60
Yellowfin sole	145.24	61.35	15.42	7.37	9.76	4.31	9.63	12.64	6.00	33.35	28.36	15.10	2.50
Other flatfish	--	--	--	--	--	--	--	--	--	0.29	--	--	--
Total flatfish	781.34	620.58	88.70	21.25	30.27	25.59	58.10	56.88	32.30	74.67	82.05	70.13	40.97
Walleye pollock	25.57	5.89	40.82	7.83	2.19	0.09	2.11	0.01	--	--	173.31	2.75	178.52
Pacific cod	137.70	16.80	102.42	34.23	0.13	--	--	1.31	0.37	--	323.85	4.65	219.40
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	0.97	3.23	--	0.65	--	0.80	--	--	8.54	0.31	3.95
Pacific herring	--	1.49	2.12	2.09	7.31	1.77	0.17	0.10	--	--	0.98	0.31	0.22
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	5.43	6.06	1.86	0.00	3.20	3.55	2.02	9.33	13.01	25.34	33.96	20.82	7.03
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	0.26	2.48	0.39	0.86	1.98	2.86	3.47	3.55	0.31	0.68	22.68	12.38	5.05
Total roundfish	168.96	32.73	148.58	48.24	14.80	8.93	7.77	15.09	13.68	26.02	563.33	41.23	414.17
Blue king crab	--	--	--	--	--	--	--	--	5.66	2.80	45.40	2.40	6.42
Red king crab	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, Bairdi	12.08	13.41	5.80	4.68	1.86	--	--	--	0.15	0.54	1.66	--	0.55
Tanner crab, Opilio	57.10	285.66	22.50	71.20	76.00	108.31	53.20	40.50	7.90	11.90	73.13	156.10	41.97
Other crab	30.53	89.86	17.19	20.54	43.71	33.77	18.00	43.89	41.34	13.60	8.24	42.77	4.38
Shrimp	--	0.01	0.00	0.01	0.01	0.01	0.00	0.01	--	0.01	3.36	0.15	5.94
Octopus	--	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--	--
Snails	55.12	86.65	19.91	42.66	47.64	6.26	5.23	8.12	13.88	2.33	42.80	11.66	4.91
Starfish	198.85	147.51	71.22	52.14	33.06	19.36	9.04	9.15	4.81	2.34	8.02	12.26	5.64
Other invertebrates	564.17	240.52	98.11	75.09	117.09	79.34	50.75	9.72	12.20	6.68	30.03	14.12	21.45
Total invertebrates	917.85	863.61	234.73	266.32	319.37	247.04	136.23	111.39	85.94	40.19	212.64	239.47	91.27

Appendix B Table 1. -- Continued.

Station	ON2524	ON2625	O-24	N-24	N-23	M-23	M-24	L-24	L-23	K-23	K-24	G-21	G-21	GF2120
Start date and time	7/2/08 15:31	7/2/08 18:16	7/3/08 7:04	7/3/08 9:48	7/3/08 12:42	7/3/08 15:14	7/3/08 17:40	7/4/08 7:01	7/4/08 9:53	7/4/08 13:02	7/4/08 15:50	7/5/08 7:08	7/5/08 7:08	7/5/08 10:17
Haul number	122	123	124	125	126	127	128	129	130	131	132	133	133	134
Start latitude	5931.07	5930.54	5940.67	5920.58	5920.33	5900.67	5859.29	5840.12	5840.48	5819.96	5820.55	5659.99	5659.99	5650.14
Start longitude	17305.93	17430.00	17325.94	17329.60	17209.01	17212.88	17336.41	17336.34	17216.73	17222.15	17341.75	17147.01	17147.01	17003.82
End latitude	5930.28	5931.72	5939.42	5919.21	5918.92	5859.24	5900.03	5839.90	5838.96	5819.46	5819.65	5659.86	5659.86	5650.20
End longitude	17308.54	17428.39	17327.53	17330.95	17210.06	17211.96	17334.73	17339.12	17216.73	17219.47	17342.74	17149.72	17149.72	17006.50
Bottom depth (m)	93	103	85	87	79	86	97	102	93	95	101	69	69	72
Duration (h)	0.53	0.48	0.50	0.53	0.50	0.51	0.38	0.49	0.52	0.51	0.35	0.50	0.50	0.49
Distance fished (km)	2.87	2.68	2.77	2.85	2.79	2.79	2.13	2.73	2.82	2.78	1.94	2.77	2.77	2.74
Net width (m)	18.03	17.81	17.92	17.43	17.55	17.26	17.03	17.15	16.89	16.37	16.32	15.82	15.82	16.37
Net measured?	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Skates	37.80	230.40	48.80	44.60	44.40	78.00	33.50	35.54	22.80	93.00	70.00	111.46	111.46	16.60
Sharks	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	37.80	230.40	48.80	44.60	44.40	78.00	33.50	35.54	22.80	93.00	70.00	111.46	111.46	16.60
Alaska plaice	0.92	3.04	3.84	3.31	2.57	24.52	3.60	--	30.11	--	3.54	--	--	14.04
Arrowtooth flounder	--	39.39	--	0.05	--	10.09	38.31	41.73	64.45	49.60	55.58	66.94	66.94	105.49
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	3.06	23.76	0.05	0.13	0.04	--	--	5.83	--	--	--	--	--	--
Pacific halibut	--	11.24	0.69	3.77	14.11	18.09	4.90	--	1.44	0.42	7.90	33.50	33.50	4.40
Rock sole	15.90	77.10	15.60	30.67	14.11	249.51	39.66	9.67	120.77	11.01	47.77	95.83	95.83	241.88
Yellowfin sole	--	--	0.16	0.30	2.86	16.06	2.07	--	64.58	--	--	75.04	75.04	41.77
Other flatfish	--	29.33	--	--	--	4.90	18.47	8.20	33.22	12.51	32.86	11.18	11.18	--
Total flatfish	19.88	183.85	20.34	38.23	19.58	323.15	107.00	65.43	314.57	73.53	147.64	282.49	282.49	407.58
Walleye pollock	247.14	205.00	54.27	86.03	40.19	442.54	1858.64	3522.48	2416.66	1789.40	269.40	178.61	178.61	11.30
Pacific cod	106.31	43.40	67.10	94.04	20.01	142.15	205.62	80.50	66.00	78.00	19.62	32.60	32.60	40.14
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	2.11	10.34	2.57	3.08	1.12	1.54	1.87	30.29	2.40	0.47	--	--	--	--
Pacific herring	1.00	0.02	2.20	0.86	2.28	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	3.16	10.82	4.63	6.37	--	5.29	4.36	24.42	2.20	24.43	201.62	164.84	164.84	191.19
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total roundfish	5.16	1.14	2.64	2.15	0.34	1.78	0.02	0.12	0.37	--	--	66.79	66.79	5.32
Other roundfish	364.89	270.71	133.42	192.53	63.94	593.30	2070.50	3657.81	2487.63	1892.30	490.64	442.84	442.84	247.96
Total roundfish	364.89	270.71	133.42	192.53	63.94	593.30	2070.50	3657.81	2487.63	1892.30	490.64	442.84	442.84	247.96
Blue king crab	2.46	--	2.10	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanner crab	0.94	1.84	0.04	0.69	0.30	0.63	3.79	2.05	1.03	2.53	6.90	78.60	78.60	136.12
Tanner crab, Bairdi	53.54	53.27	90.10	192.34	55.80	28.92	103.40	36.33	56.50	72.28	284.00	0.18	0.18	6.50
Tanner crab, Opilio	5.74	14.59	33.69	13.91	15.51	22.78	22.76	13.75	6.95	52.11	29.86	81.92	81.92	19.98
Other crab	5.04	0.46	0.05	0.70	0.01	--	0.60	0.30	--	0.12	0.91	--	--	--
Shrimp	--	--	1.43	--	--	--	--	--	--	--	--	0.11	0.11	--
Octopus	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Snails	17.61	28.91	4.41	27.89	29.81	22.01	17.51	15.11	49.93	311.03	415.11	29.87	29.87	28.85
Starfish	12.04	27.27	16.89	42.78	20.70	32.41	17.50	18.20	128.36	104.54	186.55	115.07	115.07	139.30
Other invertebrates	23.45	119.78	28.82	60.53	37.10	17.42	123.53	147.64	44.11	21.06	10.37	304.27	304.27	24.41
Total invertebrates	120.82	246.12	177.53	338.84	159.23	124.17	289.09	233.38	286.87	563.68	933.70	1044.71	1044.71	355.15

Appendix B Table 1. -- Continued.

Station	F-20	GF2019	F-19	GF1918	F-18	A-02	B-02	C-02	D-01	F-01	E-01	E-18
Start date and time	7/5/08 12:48	7/6/08 7:06	7/6/08 9:43	7/6/08 12:06	7/6/08 14:55	7/10/08 8:09	7/10/08 11:46	7/10/08 14:19	7/10/08 17:45	7/11/08 7:13	7/11/08 10:03	7/11/08 13:03
Haul number	135	137	138	139	141	144	146	147	148	149	150	151
Start latitude	5639.52	5650.50	5640.32	5650.25	5640.01	5459.46	5519.71	5539.67	5559.72	5640.95	5620.75	5620.04
Start longitude	17030.75	17041.92	16905.41	16922.07	16941.43	16702.95	16701.99	16701.05	16822.88	16819.78	16820.66	16947.29
End latitude	5640.40	5649.01	5639.69	5649.28	5638.42	5500.86	5521.15	5540.68	5600.49	5639.42	5619.20	5620.57
End longitude	17028.45	17042.29	16907.03	16924.30	16941.66	16703.89	16702.63	16701.15	16821.37	16819.67	16820.67	16944.65
Bottom depth (m)	79	100	100	97	106	156	139	135	133	133	128	150
Duration (h)	0.51	0.50	0.36	0.52	0.54	0.50	0.50	0.34	0.38	0.51	0.52	0.52
Distance fished (km)	2.87	2.80	2.02	2.89	2.96	2.78	2.74	1.88	2.12	2.84	2.88	2.90
Net width (m)	16.82	17.20	17.53	17.73	18.59	18.95	19.02	20.11	19.49	18.15	18.64	17.69
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	3	0	0	5.41	3.13	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	81.50	22.20	17.50	1.12	7.74	18.37	5.75	10.88	11.49	--	0.12	14.23
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	81.50	22.20	17.50	1.12	7.74	18.37	5.75	10.88	11.49	--	0.12	14.23
Alaska plaice	--	17.53	--	--	--	--	--	--	--	--	--	--
Arrowtooth flounder	286.82	30.43	193.70	159.75	270.74	388.48	169.02	99.55	110.14	450.51	271.80	421.42
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	32.69	--	--	9.76	6.17	5.44	--	--	3.57	6.04	--	9.99
Rock sole	960.76	172.23	1.10	2.11	1.03	--	--	--	--	22.08	--	--
Yellowfin sole	10.77	29.41	--	--	--	--	--	--	--	--	--	--
Other flatfish	1318.67	16.43	15.43	18.25	9.01	13.61	12.57	5.49	6.41	19.78	10.22	5.82
Total flatfish	213	266.03	210.23	189.88	286.95	407.53	181.58	105.04	120.11	498.40	282.02	437.23
Walleye pollock	41.00	1102.94	730.20	166.40	303.65	--	1.96	0.98	--	414.78	2.05	207.13
Pacific cod	41.00	13.10	15.90	31.80	22.90	--	2.15	76.33	41.53	33.68	7.70	8.99
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	0.31	0.33	--	--	--	0.49	0.14	--	0.54	0.15	--
Pacific herring	--	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	1.15	--	--	0.13
Sculpins	497.53	23.52	8.56	13.71	--	1.62	0.49	6.75	38.59	14.09	0.58	0.35
Other rockfish	--	--	--	--	--	--	--	--	2.48	--	--	--
Other roundfish	45.37	11.34	0.99	0.69	0.11	0.31	1.09	0.98	0.58	0.17	0.93	1.07
Total roundfish	586.03	1151.21	755.98	212.61	326.66	1.93	6.17	85.18	84.33	463.26	11.41	217.67
Blue king crab	--	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, Bairdi	8.72	6.49	7.84	11.92	15.20	29.17	20.90	13.76	4.68	8.19	3.09	97.40
Tanner crab, Opilio	38.80	28.48	34.17	59.41	186.50	0.83	0.84	--	1.17	9.59	5.92	12.89
Other crab	52.91	53.88	7.64	22.46	11.71	1.58	4.94	0.70	5.80	50.03	11.63	6.97
Shrimp	--	--	--	0.01	--	0.55	1.18	0.01	0.39	--	0.12	0.76
Octopus	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	15.79	27.71	4.49	1.90	13.59	22.72	2.32	1.04	16.81	26.30	5.35	3.42
Starfish	285.03	12.46	1.20	62.29	1.62	0.16	--	0.17	0.07	18.99	2.60	1.47
Other invertebrates	175.83	37.50	23.41	3.69	52.89	4.42	8.10	5.27	12.96	103.35	60.08	147.67
Total invertebrates	577.08	166.51	78.75	161.69	281.51	59.44	38.28	20.96	41.88	216.44	88.78	270.59

Appendix B Table 1. -- Continued.

Station	E-19	G-24	F-24	F-25	G-25	G-26	H-26	I-26	J-26	K-26	L-26	K-26
Start date and time	7/11/08 16:34	7/12/08 7:39	7/12/08 10:16	7/12/08 13:11	7/12/08 15:51	7/12/08 18:49	7/13/08 7:29	7/13/08 9:58	7/13/08 12:34	7/13/08 15:16	7/13/08 18:45	7/14/08 7:37
Haul number	152	153	154	155	156	157	158	159	160	161	162	163
Start latitude	5620.05	5657.72	5640.28	5640.71	5659.26	5659.21	5721.21	5738.83	5759.42	5820.17	5839.19	5819.48
Start longitude	16909.05	17357.60	17200.93	17325.40	17320.92	17445.37	17438.63	17437.58	17431.69	17427.01	17422.15	17542.56
End latitude	5620.29	5656.20	5638.94	5642.24	5700.71	5700.65	5722.13	5740.20	5801.00	5821.66	5840.69	5820.61
End longitude	16906.29	17357.51	17359.55	17325.00	17320.23	17444.73	17440.75	17436.71	17431.75	17427.73	17423.11	17541.67
Bottom depth (m)	128	118	126	134	123	141	121	143	117	116	126	160
Duration (h)	0.52	0.51	0.51	0.51	0.50	0.51	0.50	0.49	0.52	0.50	0.51	0.41
Distance fished (km)	2.89	2.81	2.86	2.87	2.73	2.73	2.74	2.78	2.94	2.85	2.93	2.27
Net width (m)	18.17	18.09	17.95	18.72	18.58	18.50	18.35	18.42	18.52	17.99	18.40	18.57
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	5.00
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	58.93	--	0.04	24.08	--	40.96	10.15	11.10	24.02	23.35	48.26	93.84
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	58.93	--	0.04	24.08	--	40.96	10.15	11.10	24.02	23.35	48.26	93.84
Alaska plaice	--	--	--	--	--	--	--	--	--	--	--	--
Arrowtooth flounder	270.17	101.44	153.69	205.53	55.30	89.95	140.07	136.52	191.33	50.07	138.29	96.47
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	1.08	15.83	15.02	6.84	11.22	14.57	26.95	4.50	22.21	2.13	20.68	1.69
Rock sole	18.10	--	7.49	5.88	--	--	--	--	--	6.31	16.48	0.67
Yellowfin sole	--	--	--	--	--	--	--	--	--	--	--	--
Other flatfish	27.69	16.84	16.26	38.60	16.76	30.63	10.96	36.27	45.58	14.77	14.85	14.35
Total flatfish	317.03	134.10	192.46	256.85	83.28	135.15	177.98	177.29	259.12	73.28	190.30	113.18
Walleye pollock	277.13	735.58	5.48	524.03	524.03	8.77	19.36	0.02	192.12	444.62	5.08	--
Pacific cod	29.14	33.18	105.54	12.14	21.56	8.77	19.36	37.38	98.17	90.03	143.52	13.10
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	1.50	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	0.03	--	--	0.10	--
Pacific herring	--	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	0.26	--	--	--	--	--	--	--	--	0.32
Sculpins	5.25	0.18	0.71	0.61	12.46	--	0.01	9.80	7.76	3.94	12.13	1.34
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	1.45	0.65	0.22	0.00	0.01	0.56	0.05	0.46	0.01	--	0.26	1.49
Total roundfish	312.97	769.59	112.21	12.76	558.06	9.33	20.92	47.69	298.06	538.59	161.09	16.24
Blue king crab	--	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, Bairdi	23.42	9.88	4.75	2.89	1.34	0.84	7.94	13.04	7.91	2.30	0.97	3.71
Tanner crab, Opilio	1.71	35.10	7.62	--	12.62	0.57	12.23	53.79	9.05	50.96	6.83	0.07
Other crab	2.80	5.74	6.44	8.52	5.19	13.83	9.68	14.20	18.99	31.72	81.91	8.66
Shrimp	0.01	1.96	0.01	0.26	0.25	0.65	0.40	2.50	0.65	0.15	0.10	0.03
Octopus	--	--	0.01	0.03	--	--	0.04	0.01	0.01	0.00	--	--
Squids	--	--	0.04	--	--	--	0.03	--	--	--	--	--
Snails	13.40	4.86	11.77	18.90	9.82	25.60	17.24	20.31	11.46	19.11	59.56	6.43
Starfish	2.70	1.50	--	3.08	4.26	6.94	2.70	5.43	10.26	2.85	3.19	9.20
Other invertebrates	31.06	1028.79	516.57	146.54	91.55	174.62	105.70	4.90	14.62	10.11	7.63	23.05
Total invertebrates	75.11	1087.83	547.32	180.22	125.04	223.06	155.96	114.17	72.94	117.21	160.19	51.25

Appendix B Table 1. -- Continued.

Station	L-27	M-27	N-27	O-27	PO2726	P-26	OP2625	O-26	R-26	S-26	T-26	U-26
Start date and time	7/14/08 10:13	7/14/08 13:02	7/14/08 15:44	7/14/08 18:15	7/15/08 7:25	7/15/08 10:20	7/15/08 14:02	7/15/08 16:55	7/15/08 19:54	7/16/08 7:32	7/16/08 10:06	7/16/08 12:48
Haul number	164	165	166	167	168	169	171	172	173	174	175	176
Start latitude	5839.33	5858.84	5919.32	5939.32	5949.34	5959.66	6006.26	6019.27	6039.37	6059.47	6119.26	6139.26
Start longitude	17543.77	17536.89	17534.55	17533.16	17544.28	17401.73	17413.64	17555.66	17552.87	17548.72	17540.42	17535.82
End latitude	5840.80	5900.42	5920.80	5940.83	5950.26	6000.59	6007.25	6020.81	6040.85	6100.97	6120.79	6140.15
End longitude	17543.31	17536.60	17534.75	17533.66	17546.71	17404.15	17413.73	17555.95	17553.16	17548.85	17540.04	17533.17
Bottom depth (m)	156	127	120	115	107	97	89	91	87	83	78	77
Duration (h)	0.50	0.52	0.50	0.51	0.51	0.51	0.34	0.51	0.49	0.51	0.51	0.51
Distance fished (km)	2.77	2.95	2.77	2.82	2.85	2.84	1.83	2.87	2.77	2.79	2.85	2.86
Net width (m)	18.86	18.41	18.37	18.27	17.84	18.05	19.04	19.21	18.53	18.11	18.13	18.13
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	1.12	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	7.75	115.45	84.38	111.84	102.54	17.11	26.20	55.78	44.47	30.00	9.32	11.55
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	7.75	115.45	84.38	111.84	102.54	17.11	26.20	55.78	44.47	30.00	9.32	11.55
Alaska plaice	--	--	32.79	--	0.72	--	0.90	--	--	1.18	--	--
Arrowtooth flounder	374.85	299.88	117.51	36.79	52.17	16.19	--	2.69	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	0.03	5.80	0.65	2.13	7.44	--	0.03	0.01	--	0.03
Pacific halibut	39.42	67.88	17.84	2.92	0.75	13.92	1.89	4.03	2.65	0.44	--	--
Rock sole	4.23	67.68	70.63	2.92	7.29	2.31	10.63	5.03	2.65	0.44	--	--
Yellowfin sole	--	--	--	--	--	--	--	0.30	1.97	--	0.84	--
Other flatfish	24.45	51.08	58.10	25.55	42.36	16.19	--	--	--	--	--	--
Total flatfish	442.95	486.53	296.91	71.06	103.93	50.72	20.85	12.05	4.65	1.62	3.00	0.03
Walleye pollock	1.02	467.08	327.47	459.78	670.45	1074.22	845.15	350.44	33.89	--	--	--
Pacific cod	29.82	159.86	115.38	82.61	70.50	224.82	155.97	142.35	209.15	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	3.49	3.54	30.30	5.46	2.86	7.43	2.74	0.46	0.09	0.14
Eelpouts	--	--	--	--	--	--	0.44	0.31	0.19	0.03	--	0.12
Pacific herring	--	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	0.58	54.98	13.92	62.04	7.47	6.69	5.84	27.34	5.99	--	1.20	0.22
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	3.71	3.22	1.03	0.09	0.86	5.20	11.15	23.06	2.31	4.91	1.91	4.70
Total roundfish	35.13	685.14	461.28	608.05	779.58	1316.39	1021.42	550.92	254.28	5.40	3.20	5.18
Blue king crab	--	--	--	--	--	11.92	6.40	2.02	1.72	1.22	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--	--
Tanner crab	8.02	5.79	2.18	0.30	0.02	1.93	--	0.60	0.14	0.04	--	--
Tanner crab, bairdi	0.62	4.02	15.73	151.78	32.44	76.45	11.20	157.58	81.83	36.28	48.69	9.03
Other crab	18.10	95.49	135.84	45.00	43.94	6.24	3.86	2.89	0.38	0.57	1.06	0.80
Shrimp	0.80	0.54	2.28	1.01	5.49	0.14	0.00	0.05	0.08	0.05	0.20	0.04
Octopus	0.07	--	--	--	--	--	--	--	--	--	--	0.20
Squids	0.05	--	--	--	--	--	--	--	--	--	--	--
Snails	6.12	39.43	60.09	56.68	73.40	16.87	0.58	0.48	0.18	0.87	4.01	7.43
Starfish	3.30	7.59	9.52	13.53	140.51	22.97	1.94	2.29	0.78	3.29	12.69	15.31
Other invertebrates	17.34	41.96	68.44	21.59	34.31	19.23	8.40	9.65	0.98	0.14	76.49	47.98
Total invertebrates	54.42	194.82	294.09	289.88	330.11	155.74	32.39	175.57	86.09	42.46	143.13	80.80

Appendix B Table 1. --- Continued.

Station	U-27	T-27	T-28	S-28	S-27	R-28	R-27	O-27	QP2726	P-27
Start date and time	7/16/08 15:27	7/16/08 18:06	7/17/08 8:27	7/17/08 10:53	7/17/08 13:58	7/17/08 17:11	7/18/08 7:15	7/18/08 9:48	7/18/08 12:06	7/18/08 14:09
Haul number	177	178	180	181	182	183	184	185	186	187
Start latitude	6140.59	6119.65	6118.10	6100.19	6100.42	6040.35	6040.49	6020.48	6010.66	6000.21
Start longitude	17655.81	17501.21	17620.82	17627.22	17506.74	17634.45	17512.14	17517.09	17539.98	17524.12
End latitude	6139.55	6119.78	6116.58	6059.98	6059.17	6039.01	6039.02	6019.20	6009.75	5958.68
End longitude	17656.08	17658.15	17620.71	17630.21	17504.92	17632.83	17512.22	17518.52	17537.67	17524.49
Bottom depth (m)	85	88	98	102	92	107	98	103	100	107
Duration (h)	0.35	0.49	0.50	0.49	0.51	0.51	0.49	0.49	0.49	0.51
Distance fished (km)	1.94	2.75	2.82	2.73	2.85	2.88	2.71	2.72	2.72	2.86
Net width (m)	18.11	17.45	18.58	18.22	18.46	18.68	18.64	18.12	18.13	17.70
Net measured?	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Performance	5.40	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44
Skates	20.12	11.53	5.38	57.57	7.70	20.58	56.33	6.42	20.20	91.46
Sharks	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	20.12	11.53	5.38	57.57	7.70	20.58	56.33	6.42	20.20	91.46
Alaska plaice	--	--	1.54	3.46	--	--	1.08	0.63	--	--
Arrowtooth flounder	--	--	--	--	--	--	--	0.30	30.40	26.53
Flathead sole	--	--	--	--	--	--	--	--	--	--
Greenland turbot	0.06	0.01	0.18	0.30	0.00	1.48	0.05	0.05	4.54	9.29
Pacific halibut	--	--	0.64	--	--	0.75	--	3.72	7.53	14.07
Rock sole	--	--	1.64	1.19	--	3.21	--	14.46	5.84	3.64
Yellowfin sole	--	--	0.12	--	--	--	--	--	--	--
Other flatfish	--	--	--	--	--	--	--	--	23.77	12.48
Total flatfish	0.06	0.01	4.12	4.95	0.00	5.44	1.13	19.16	72.08	66.00
Walleye pollock	--	--	101.94	441.61	--	339.21	0.03	508.57	224.61	653.72
Pacific cod	--	--	42.15	137.18	--	81.10	--	50.74	112.32	38.52
Sablefish	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	0.58	3.10	1.41	6.72	6.82	1.98	9.07	13.42
Eelpouts	--	--	--	--	0.07	--	0.79	--	--	--
Pacific herring	0.07	14.52	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--
Sculpins	--	0.31	3.94	6.96	0.02	8.37	3.25	8.98	13.03	26.88
Other rockfish	--	--	--	--	--	--	--	--	--	--
Other roundfish	9.04	1128.97	0.40	0.26	5.88	0.09	9.90	3.50	3.16	0.48
Total roundfish	9.11	1143.80	149.01	589.11	7.38	435.49	20.79	573.78	362.19	733.02
Blue king crab	--	--	--	--	--	1.36	--	--	2.98	--
Red king crab	--	--	--	--	--	--	--	--	--	--
Tanner crab	--	0.01	--	--	--	0.03	0.20	0.66	0.81	0.10
Tanner crab, bairdi	12.82	14.99	37.84	23.39	35.13	16.02	44.35	17.73	18.12	21.69
Other crab	0.40	1.50	0.54	5.74	0.17	4.62	1.11	9.95	7.88	52.93
Shrimp	0.05	0.01	0.13	0.44	0.03	0.31	0.20	0.35	0.36	2.17
Octopus	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--
Snails	1.59	1.87	2.91	17.71	0.32	36.90	2.95	18.85	11.34	139.22
Starfish	5.90	5.19	1.52	17.25	0.87	60.37	1.16	121.44	21.88	168.66
Other invertebrates	7.16	1.03	0.71	5.82	1.35	8.90	1.59	6.56	16.97	23.59
Total invertebrates	27.92	24.60	43.65	70.35	37.86	128.50	51.55	175.55	80.34	408.36

Appendix B Table 2. -- Haul and catch data for successfully completed tows by FV *Aldebaran* during the 2008 eastern Bering Sea bottom trawl survey.

Station	H-16	I-16	J-16	J-15	J-14	I-14	H-14	G-14	F-14	F-13	G-12
Start date and time	6/4/08 13:15	6/4/08 15:42	6/4/08 18:26	6/5/08 7:04	6/5/08 9:28	6/5/08 12:07	6/5/08 14:39	6/5/08 17:16	6/6/08 6:46	6/6/08 9:39	6/6/08 13:08
Haul number	2	3	4	5	6	7	8	9	10	11	12
Start latitude	5719.64	5739.11	5759.06	5800.33	5800.03	5740.64	5720.78	5700.17	5640.53	5640.00	5659.33
Start longitude	15934.87	15936.88	15940.22	15901.36	16024.85	16022.32	16019.85	16018.86	16015.89	16137.81	16102.95
End latitude	5721.08	5740.57	5800.33	5758.79	5759.99	5739.18	5719.33	5658.93	5639.98	5640.26	5700.58
End longitude	15935.70	15937.01	15941.74	15900.41	16022.00	16021.97	16019.27	16017.12	16013.39	16135.22	16101.36
Bottom depth (m)	30	34	33	43	42	51	56	54	38	61	65
Duration (h)	0.51	0.50	0.51	0.52	0.52	0.51	0.51	0.51	0.51	0.50	0.51
Distance fished (km)	2.79	2.70	2.79	3.00	2.83	2.74	2.75	2.91	2.76	2.70	2.82
Net width (m)	15.00	13.40	15.00	16.00	16.14	16.36	15.99	15.89	15.10	15.57	16.67
Net measured?	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	56.23	--	--	6.85	--	15.80	12.56	--	332.18	21.28	3.71
Sharks	56.23	--	--	6.85	--	15.80	12.56	--	332.18	21.28	3.71
Total elasmobranch	--	1.11	0.19	--	2.24	1.29	2.29	1.82	0.70	1.64	77.66
Alaska plaice	--	--	--	--	--	--	--	--	--	--	--
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	4.78	6.99	0.55	0.35	14.60	23.63	11.56	12.05	15.00	16.66	33.35
Rock sole	1,461.98	664.35	249.83	51.19	136.20	286.11	200.94	305.75	396.94	456.54	541.79
Yellowfin sole	597.83	574.69	492.72	171.97	471.89	207.51	193.51	299.80	289.47	960.38	299.88
Other flatfish	53.92	17.93	35.00	4.08	28.03	111.11	7.29	23.71	70.31	21.26	104.99
Total flatfish	2,118.51	1,265.07	778.28	227.59	652.95	629.65	415.59	643.13	772.41	1,456.66	1,057.67
Walleye pollock	0.06	0.04	0.19	--	--	0.15	0.11	32.69	3.32	68.19	41.09
Pacific cod	1.30	0.25	13.81	0.27	0.02	26.62	1.51	4.10	13.71	7.62	13.47
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	--
Pacific herring	9.86	1,347.11	1.46	0.48	0.46	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	43.21	19.81	16.05	20.73	8.25	8.46	2.03	3.53	17.59	3.04	44.65
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	2.22	3.11	9.78	11.61	2.51	1.62	1.48	1.32	2.64	4.69	3.25
Total roundfish	56.65	1,370.32	41.29	33.09	11.24	36.85	5.14	41.65	37.26	83.54	102.46
Blue king crab	--	--	--	--	--	--	--	--	--	--	--
Red king crab	7.93	4.83	--	--	--	6.84	16.06	25.56	23.76	71.78	63.75
Tanner crab, bairdi	--	--	--	--	--	--	--	0.95	1.08	1.08	3.60
Tanner crab, opilio	0.16	--	--	--	--	--	--	--	--	--	0.32
Other crab	0.53	0.01	0.15	0.10	--	0.67	2.07	4.93	3.71	22.35	3.26
Shrimp	0.09	--	--	--	--	--	--	0.01	0.20	0.01	--
Octopus	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	--	--	--	--	--	0.15	0.08	1.65	--	7.14	0.66
Starfish	277.50	122.88	40.61	35.26	56.87	251.49	216.52	91.47	74.23	184.51	94.91
Other invertebrates	20.75	10.88	0.13	2.97	3.40	12.23	49.74	41.20	93.17	47.20	104.28
Total invertebrate	306.96	138.61	40.89	38.34	60.27	271.38	284.47	165.77	195.07	334.08	270.76
Miscellaneous	--	--	--	0.16	0.05	2.74	0.73	27.59	1.33	--	--
Total catch	2,538.34	2,774.00	860.47	306.03	724.52	958.00	719.19	880.00	1,340.00	1,900.00	1,448.00

Appendix B Table 2. --- Continued.

Station	H-12	I-12	J-12	K-12	K-11	K-10	J-10	H-10	G-10	F-10	E-10
Start date and time	6/6/08 15:48	6/6/08 18:34	6/7/08 6:49	6/7/08 9:19	6/7/08 12:10	6/7/08 14:44	6/7/08 17:15	6/8/08 6:44	6/8/08 9:28	6/8/08 11:57	6/8/08 14:22
Haul number	13	14	15	16	17	18	19	20	21	22	23
Start latitude	5719.29	5739.46	5759.38	5817.17	5813.85	5819.58	5800.70	5720.68	5700.57	5640.65	5621.11
Start longitude	16103.37	16106.80	16109.19	16110.66	16226.77	16357.47	16353.21	16350.72	16349.22	16350.27	16349.43
End latitude	5720.75	5740.92	5800.62	5817.05	5812.39	5820.50	5759.20	5719.20	5659.04	5639.19	5619.74
End longitude	16102.96	16106.82	16107.43	16112.07	16227.30	16355.26	16353.20	16350.63	16349.16	16350.29	16348.31
Bottom depth (m)	60	55	46	32	41	47	37	51	60	73	79
Duration (h)	0.52	0.50	0.51	0.25	0.49	0.51	0.51	0.50	0.52	0.49	0.51
Distance fished (km)	2.74	2.69	2.87	1.41	2.75	2.75	2.78	2.74	2.83	2.69	2.79
Net width (m)	16.48	15.76	16.02	14.53	15.44	15.73	15.11	16.05	16.36	16.30	16.20
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	--	9.75	4.16	--	25.02	30.01	16.40	40.60	10.74	23.18	19.50
Sharks	--	--	4.16	--	25.02	30.01	16.40	40.60	10.74	23.18	19.50
Total elasmobranch	33.08	52.00	60.06	5.10	1.73	8.61	19.26	99.33	194.18	173.49	138.65
Alaska plaice	--	--	--	--	--	--	--	--	2.23	14.24	48.54
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	18.74	25.63	48.28	1.73	22.58	12.20	27.96	67.18	43.32	19.73	24.73
Rock sole	363.07	615.66	526.51	76.33	182.11	363.86	685.40	406.62	545.38	401.46	756.95
Yellowfin sole	210.33	1,329.81	434.15	68.04	142.92	284.53	390.30	469.89	301.27	363.86	440.81
Other flatfish	14.96	22.15	71.02	34.58	86.22	72.58	60.36	4.70	--	1.51	3.14
Total flatfish	640.18	2,045.25	1,140.01	185.78	435.55	741.78	1,183.29	1,047.71	1,086.37	974.29	1,412.82
Walleye pollock	26.90	8.51	9.30	--	2.34	14.66	--	31.01	66.45	20.62	276.64
Pacific cod	24.19	5.01	9.16	0.01	--	0.65	0.52	90.37	83.80	26.14	21.92
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	--
Pacific herring	--	0.90	0.16	0.18	--	0.49	--	0.21	--	0.52	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	16.15	1.70	5.33	11.35	15.30	14.38	10.59	15.45	21.62	2.17	26.83
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	4.88	0.70	3.19	1.87	4.61	3.46	0.83	1.43	4.55	3.75	3.51
Total roundfish	72.13	16.82	27.13	13.42	22.25	33.64	11.95	138.47	176.42	53.20	328.90
Blue king crab	--	--	--	--	--	--	--	--	--	--	--
Red king crab	101.37	53.28	22.65	1.70	1.52	4.70	17.83	50.33	29.92	30.76	59.17
Tanner crab, bairdi	0.56	0.54	--	--	--	--	--	--	1.71	3.69	12.25
Tanner crab, opilio	--	--	--	--	--	--	--	--	0.25	0.72	0.49
Shrimp	1.72	1.91	3.53	0.54	1.83	6.41	15.82	14.73	4.03	3.27	7.87
Octopus	--	--	--	0.05	--	0.01	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	--	9.69	1.43	--	--	2.35	--	18.80	--	1.07	22.81
Starfish	72.97	104.55	141.26	70.57	58.32	105.50	243.96	150.50	31.52	15.60	61.69
Other invertebrates	50.31	20.85	5.71	3.83	0.98	1.46	6.17	12.26	28.10	99.48	511.35
Total invertebrate	226.92	190.82	174.56	76.68	62.65	120.44	300.89	246.62	95.52	154.58	675.63
Miscellaneous	--	1.11	0.14	--	0.05	0.05	0.07	--	--	1.89	1.22
Total catch	952.00	2,276.00	1,350.00	275.89	545.52	925.92	1,516.00	1,492.00	1,416.00	1,266.00	2,618.00

Appendix B Table 2. --- Continued.

Station	D-10	E-08	D-08	C-08	B-08	B-07	B-06	A-06	A-05	AZ0504	Z-05
Start date and time	6/8/08 16:56	6/9/08 6:46	6/9/08 9:12	6/9/08 11:56	6/9/08 14:27	6/10/08 11:40	6/10/08 14:15	6/10/08 16:40	6/11/08 6:59	6/11/08 9:42	6/11/08 11:58
Haul number	24	25	26	27	28	31	32	33	34	35	36
Start latitude	5600.15	5620.33	5600.73	5540.52	5520.71	5520.80	5521.20	5502.31	5500.39	5450.18	5441.00
Start longitude	16344.69	16435.17	16436.44	16435.72	16436.54	16527.45	16527.45	16525.01	16650.62	16628.03	16651.14
End latitude	5559.22	5618.86	5559.26	5539.06	5519.89	5519.87	5520.07	5500.87	5458.86	5450.01	5439.52
End longitude	16342.55	16435.03	16436.22	16435.47	16434.34	16525.73	16525.73	16524.05	16650.77	16630.67	16651.05
Bottom depth (m)	71	84	87	83	53	77	101	65	111	153	83
Duration (h)	0.50	0.51	0.50	0.51	0.50	0.52	0.51	0.52	0.52	0.52	0.51
Distance fished (km)	2.83	2.73	2.73	2.73	2.78	2.81	2.77	2.87	2.84	2.85	2.74
Net width (m)	16.05	16.08	16.67	16.80	15.41	16.60	16.94	15.86	16.95	17.03	16.53
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	12.98	29.57	45.25	34.13	157.90	54.96	22.92	30.12	58.10	48.15	85.00
Sharks	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	12.98	29.57	45.25	34.13	157.90	54.96	22.92	30.12	58.10	48.15	85.00
Alaska plaice	31.58	3.06	14.43	369.76	207.56	13.55	--	--	--	--	0.48
Arrowtooth flounder	132.45	9.42	64.89	318.98	246.96	618.10	--	18.65	626.64	186.83	372.33
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	15.32	21.47	7.10	24.20	23.28	28.28	16.90	56.18	8.85	6.28	102.64
Rock sole	248.05	84.37	141.35	141.55	697.08	108.48	--	77.20	17.87	1.74	289.86
Yellowfin sole	207.41	116.36	39.58	227.32	936.61	67.16	--	15.30	--	--	14.98
Other flatfish	8.35	--	1.76	6.10	8.83	8.01	2.21	--	196.31	13.06	14.48
Total flatfish	643.16	234.69	269.12	1,087.91	2,120.30	843.58	297.13	167.33	849.68	207.91	794.76
Walleye pollock	754.16	45.91	124.00	542.92	748.29	3,766.38	4,386.85	92.58	2,405.17	--	1.77
Pacific cod	85.41	26.65	9.24	27.33	52.81	75.30	8.00	27.00	38.42	29.10	7.35
Sablefish	--	--	--	--	--	--	0.86	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	0.04	--	--	--	--	--	--	--	--	--
Pacific herring	--	1.12	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	19.95	--	0.01	6.42	36.59	34.89	0.15	0.67	13.37	0.22	4.91
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	5.20	0.67	2.68	4.14	26.86	1.34	--	11.33	3.69	6.50	22.47
Total roundfish	864.72	74.39	135.93	580.80	864.55	3,877.91	4,395.86	131.58	2,460.65	35.82	36.50
Blue king crab	--	--	--	--	--	--	--	--	--	--	--
Red king crab	249.22	--	--	47.44	559.13	--	--	--	--	--	--
Tanner crab, bairdi	5.71	9.30	18.35	18.20	484.66	5.59	78.10	1.31	23.00	41.33	0.84
Tanner crab, opilio	1.76	4.78	4.38	6.00	3.40	0.09	5.91	0.25	4.80	4.01	--
Other crab	8.59	49.13	41.26	25.49	33.22	0.73	46.46	3.03	9.28	9.01	0.56
Shrimp	0.01	--	--	--	--	--	0.01	--	--	--	--
Octopus	--	--	--	--	--	--	--	2.81	--	0.00	--
Squids	--	--	--	--	--	--	--	--	--	0.03	--
Snails	7.43	86.66	97.85	43.15	30.83	10.87	37.75	17.45	2.35	16.94	2.07
Starfish	35.95	9.53	4.41	10.94	242.54	79.42	2.50	1.26	1.25	0.89	0.08
Other invertebrates	18.12	1,307.47	125.30	47.59	245.32	177.93	56.15	677.45	5.77	40.27	8.92
Total invertebrate	326.78	1,466.87	291.54	198.80	1,599.10	274.64	226.87	703.57	46.46	112.48	12.48
Miscellaneous	--	25.51	23.35	3.53	33.13	1.14	30.21	87.97	0.82	0.16	3.95
Total catch	1,890.13	1,900.00	819.32	1,951.38	5,372.22	5,114.00	5,064.26	1,126.00	3,598.90	409.22	1,055.10

Appendix B Table 2. --- Continued.

Station	C-06	D-06	E-06	F-06	G-06	H-06	I-06	J-06	K-06	L-06
Start date and time	6/12/08 6:57	6/12/08 9:36	6/12/08 12:33	6/12/08 15:27	6/12/08 18:18	6/13/08 9:14	6/13/08 12:01	6/13/08 14:36	6/13/08 16:56	6/14/08 6:42
Haul number	37	38	39	40	41	43	44	45	46	47
Start latitude	5539.43	5558.72	5619.37	5639.72	5658.50	5719.99	5739.48	5759.70	5819.22	5839.33
Start longitude	16524.76	16522.55	16524.34	16523.48	16522.70	16525.10	16522.58	16522.73	16521.80	16520.74
End latitude	5540.94	5600.15	5620.69	5640.91	5659.95	5719.89	5740.95	5801.24	5820.76	5840.79
End longitude	16524.42	16523.56	16525.40	16525.19	16523.63	16522.28	16522.57	16522.63	16522.04	16521.40
Bottom depth (m)	96	92	86	74	70	65	53	43	44	38
Duration (h)	0.52	0.52	0.50	0.52	0.51	0.53	0.50	0.52	0.52	0.50
Distance fished (km)	2.82	2.85	2.72	2.82	2.85	2.84	2.73	2.86	2.86	2.78
Net width (m)	17.40	17.67	17.57	16.95	18.68	16.37	15.99	15.60	15.67	15.11
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	4.00	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44
Skates	93.18	20.00	15.11	90.33	3.24	52.77	27.04	36.33	32.82	32.64
Sharks	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	93.18	20.00	15.11	90.33	3.24	52.77	27.04	36.33	32.82	32.64
Alaska plaice	--	0.85	11.81	43.85	36.60	88.02	35.66	107.50	55.99	63.55
Arrowtooth flounder	240.75	30.16	6.42	1.61	--	--	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	0.06	--	--	--	--	--
Pacific halibut	31.43	6.11	3.57	13.78	7.83	4.44	1.52	20.54	14.64	17.82
Rock sole	4.47	28.36	35.23	192.58	62.98	62.46	199.29	473.10	347.19	371.89
Yellowfin sole	--	4.91	109.43	336.27	386.22	440.74	186.61	307.62	401.72	394.56
Other flatfish	2.48	0.34	--	--	--	--	--	1.74	--	1.34
Total flatfish	279.13	70.73	166.45	588.10	493.69	1,362.17	423.08	910.50	819.54	849.16
Walleye pollock	227.89	194.55	158.27	50.24	0.03	5.49	19.28	9.08	0.94	3.44
Pacific cod	42.30	32.92	27.68	6.70	5.33	2.35	41.66	19.59	35.12	10.84
Sablefish	--	--	--	--	--	--	--	--	--	--
Atka mackerel	1.81	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	0.29	--	--	0.09	--	--	--	--
Pacific herring	--	--	--	--	0.14	0.75	0.08	13.17	1.58	12.67
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--
Sculpins	5.43	2.02	1.66	4.65	14.73	11.12	8.16	6.78	8.54	15.80
Other rockfish	--	--	--	--	--	--	--	--	--	--
Other roundfish	0.36	0.32	2.21	0.52	1.65	0.55	1.48	0.52	0.89	1.71
Total roundfish	277.79	229.81	190.11	62.11	21.87	20.34	70.67	49.15	47.06	44.46
Blue king crab	--	--	--	54.34	--	--	--	--	--	--
Red king crab	--	--	--	6.02	3.98	4.75	5.13	6.15	4.70	3.05
Tanner crab, bairdi	32.57	11.61	8.07	4.06	0.79	4.71	1.28	0.19	--	--
Tanner crab, opilio	3.46	3.40	--	116.56	5.25	29.46	53.18	56.96	29.40	11.06
Other crab	68.35	48.23	46.30	0.02	0.00	--	0.12	--	--	--
Shrimp	--	--	--	--	--	--	--	--	--	--
Octopus	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--
Snails	70.70	42.46	129.94	107.15	40.01	37.91	23.20	12.05	12.53	0.50
Starfish	--	--	25.96	13.85	37.80	622.55	64.93	96.65	240.99	290.59
Other invertebrates	69.65	40.51	45.26	149.87	61.28	138.55	204.08	74.70	38.52	1.75
Total invertebrate	244.73	146.20	255.53	451.87	149.11	842.20	353.50	246.70	326.14	306.94
Miscellaneous	21.92	6.78	46.80	45.18	6.31	28.01	6.98	5.57	13.74	0.80
Total catch	1,070.06	514.54	831.36	1,432.00	698.58	2,310.00	883.78	1,250.00	1,240.00	1,234.00

Appendix B Table 2. --- Continued.

Station	M-06	N-06	N-05	M-05	L-05	K-05	J-05	I-05	I-04	H-04	G-04
Start date and time	6/14/08 9:03	6/14/08 11:31	6/14/08 13:53	6/14/08 16:27	6/15/08 6:44	6/15/08 9:14	6/15/08 11:41	6/15/08 14:09	6/15/08 16:46	6/16/08 6:47	6/16/08 9:18
Haul number	48	49	50	51	52	53	54	55	56	57	58
Start latitude	5859.02	5918.51	5919.96	5901.19	5841.24	5820.91	5800.63	5740.82	5740.81	5720.47	5700.29
Start longitude	16520.80	16519.99	16642.43	16641.88	16641.65	16642.34	16644.84	16644.86	16607.36	16607.66	16609.20
End latitude	5900.53	5920.06	5919.97	5859.66	5839.77	5819.38	5759.12	5739.31	5739.31	5718.97	5658.73
End longitude	16520.79	16520.15	16639.27	16642.08	16642.10	16642.64	16644.89	16644.26	16606.91	16607.94	16609.05
Bottom depth (m)	28	23	21	28	39	45	50	60	64	69	72
Duration (h)	0.51	0.53	0.53	0.52	0.50	0.52	0.51	0.52	0.51	0.51	0.53
Distance fished (km)	2.80	2.87	3.01	2.84	2.76	2.86	2.81	2.86	2.81	2.79	2.89
Net width (m)	15.15	14.73	14.26	15.21	15.83	16.62	15.92	16.96	17.05	16.83	17.50
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	51.83	14.50	21.11	63.83	18.83	52.35	44.86	12.63	48.13	54.49	43.12
Sharks	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	51.83	14.50	21.11	63.83	18.83	52.35	44.86	12.63	48.13	54.49	43.12
Alaska plaice	84.30	26.68	12.68	46.65	118.98	90.87	38.39	194.52	125.53	32.13	41.09
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	9.69	16.22	6.17	16.60	25.20	15.98	17.95	12.97	9.96	2.72	6.80
Rock sole	489.56	50.50	124.56	314.93	338.75	401.20	200.38	59.38	37.16	18.59	43.61
Yellowfin sole	412.68	1,423.24	462.47	626.63	654.04	501.54	95.79	277.72	230.11	520.61	672.03
Other flatfish	48.22	46.23	27.59	15.68	3.56	--	1.55	--	--	--	--
Total flatfish	1,044.44	1,562.86	633.47	1,020.48	1,140.53	1,009.58	354.06	544.58	402.76	574.05	763.54
Walleye pollock	2.19	--	0.01	0.06	9.33	14.79	10.14	3.25	0.50	9.26	20.62
Pacific cod	0.48	0.26	0.12	22.06	132.32	38.04	38.53	23.41	19.65	11.98	6.80
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	0.19	1.64
Eelpouts	--	--	--	--	--	--	--	--	--	--	0.02
Pacific herring	26.44	0.48	0.08	34.85	7.12	15.62	2.25	0.57	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	49.49	28.52	19.15	49.15	30.30	5.96	11.07	5.29	--	2.30	10.81
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	1.11	2.99	3.08	1.83	2.17	3.81	0.92	1.58	0.38	0.30	0.80
Total roundfish	79.70	32.26	22.45	107.95	181.23	78.21	62.90	34.10	20.53	24.02	40.69
Blue king crab	--	--	5.77	1.58	--	3.50	7.04	3.71	4.75	--	--
Red king crab	8.24	--	--	--	--	--	0.23	3.71	6.70	1.63	14.72
Tanner crab, Bairdi	--	--	--	--	--	--	0.59	2.66	7.12	13.94	61.76
Tanner crab, Opilio	2.98	0.63	5.39	1.83	9.51	25.91	36.19	57.50	36.16	11.46	22.65
Shrimp	--	--	--	--	--	0.02	0.15	0.02	0.13	0.07	0.33
Octopus	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	--	--	0.10	0.30	0.87	21.58	21.87	69.13	13.52	53.41	66.56
Starfish	202.35	127.45	80.07	99.51	326.45	313.45	91.44	47.63	314.10	186.59	79.64
Other invertebrates	0.46	0.21	0.89	0.03	1.27	28.05	1,063.47	346.37	296.10	249.72	258.73
Total invertebrate	214.03	128.29	92.22	103.25	338.10	392.51	1,220.98	530.72	678.58	516.82	504.40
Miscellaneous	--	0.09	2.48	0.49	1.31	10.80	137.20	47.09	44.90	9.84	0.83
Total catch	1,390.00	1,738.00	771.72	1,296.00	1,680.00	1,550.00	1,820.00	1,170.00	1,200.00	1,195.01	1,480.00

Appendix B Table 2. --- Continued.

Station	F-04	E-04	A-04	B-04	C-04	D-04	E-03	F-03	G-03	H-03	I-03
Start date and time	6/16/08 11:43	6/16/08 14:14	6/19/08 8:16	6/19/08 10:49	6/19/08 13:18	6/19/08 15:42	6/20/08 7:12	6/20/08 9:38	6/20/08 12:08	6/20/08 14:35	6/20/08 17:01
Haul number	59	60	61	62	63	64	65	66	67	68	69
Start latitude	5640.94	5620.97	5459.98	5519.92	5539.56	5558.89	5619.68	5639.26	5659.29	5719.17	5739.30
Start longitude	16608.91	16611.18	16614.54	16612.58	16611.87	16612.80	16735.44	16733.49	16731.74	16730.70	16729.44
End latitude	5639.47	5619.43	5501.49	5521.41	5541.08	5600.44	5621.17	5640.76	5700.83	5720.65	5740.78
End longitude	16608.38	16611.14	16615.08	16612.47	16611.68	16612.85	16735.31	16733.48	16731.50	16730.60	16729.05
Bottom depth (m)	78	91	130	119	117	107	103	84	74	70	66
Duration (h)	0.51	0.52	0.53	0.50	0.52	0.53	0.51	0.51	0.52	0.51	0.51
Distance fished (km)	2.79	2.85	2.87	2.76	2.82	2.87	2.76	2.78	2.87	2.75	2.78
Net width (m)	17.65	17.85	18.86	17.31	18.10	17.85	17.66	17.03	16.39	16.28	16.57
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	25.99	33.16	23.65	15.17	0.64	--	0.98	31.22	89.99	39.22	158.78
Sharks	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	25.99	33.16	23.65	15.17	0.64	--	0.98	31.22	89.99	39.22	158.78
Alaska plaice	5.63	--	--	--	--	--	--	2.51	27.56	73.57	74.80
Arrowtooth flounder	--	132.31	313.84	320.34	159.58	186.74	157.20	4.40	--	2.10	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	7.40	11.98	3.92	--	--	3.92	21.22	2.98	2.23	6.13	8.76
Rock sole	11.82	45.90	--	--	--	--	--	14.97	5.51	20.62	12.03
Yellowfin sole	51.10	--	--	--	--	--	--	9.64	27.16	439.74	936.62
Other flatfish	--	15.23	10.84	9.40	4.97	6.67	3.22	1.91	--	--	--
Total flatfish	75.95	205.42	328.60	329.74	164.55	197.33	181.64	36.41	62.46	542.16	1,032.20
Walleye pollock	40.32	683.92	53.76	12.63	--	47.29	133.50	256.48	186.19	11.00	19.69
Pacific cod	0.12	28.44	9.59	3.38	7.64	20.79	24.00	29.96	41.23	8.89	28.40
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	1.82	--	--	--	0.23	1.00	0.03	1.32	15.97	--	--
Pacific herring	0.14	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	0.01	3.00	2.26	1.88	0.51	0.77	3.64	45.29	2.73	--	12.85
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	0.71	0.21	0.02	0.00	0.16	0.64	0.29	1.58	4.42	--	--
Total roundfish	43.13	715.56	65.64	17.90	8.54	70.49	161.47	334.62	250.55	19.89	60.94
Blue king crab	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, Bairdi	4.50	11.30	44.97	28.26	18.96	34.72	14.00	5.81	2.81	11.40	2.28
Tanner crab, Opilio	1.27	2.06	0.52	0.62	1.12	2.52	3.53	3.67	7.46	11.80	12.16
Other crab	111.79	53.40	0.39	1.19	3.54	33.71	33.50	152.53	283.36	47.26	11.92
Shrimp	--	0.02	0.02	--	0.10	0.02	0.01	0.00	--	0.09	--
Octopus	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	73.87	71.16	7.36	1.45	1.78	11.01	31.66	103.69	142.88	107.17	29.43
Starfish	13.30	0.01	--	--	--	--	0.01	100.40	158.12	97.87	133.01
Other invertebrates	84.82	74.34	10.05	11.62	16.87	37.29	54.89	131.09	493.08	689.04	197.35
Total invertebrate	289.55	212.30	63.31	43.14	42.36	119.27	137.61	497.19	1,087.70	964.62	386.15
Miscellaneous	83.70	47.60	0.88	0.15	0.37	2.84	11.27	171.31	92.94	57.34	8.96
Total catch	554.23	1,544.87	497.30	452.50	247.37	452.16	650.90	1,208.92	1,592.00	1,666.00	1,660.00

Appendix B Table 2. --- Continued.

Station	J-04	J-03	K-03	K-04	L-04	M-04	N-04	O-04	O-03	N-02	O-02
Start date and time	6/21/08 7:11	6/21/08 12:05	6/21/08 15:41	6/21/08 18:25	6/22/08 7:10	6/22/08 9:31	6/22/08 12:43	6/22/08 14:56	6/22/08 17:23	6/23/08 7:03	6/23/08 9:28
Haul number	70	72	74	75	76	77	78	79	80	81	82
Start latitude	5759.67	5759.16	5820.47	5819.27	5839.14	5859.03	5918.62	5935.83	5939.73	5919.04	5938.96
Start longitude	16605.48	16728.37	16726.75	16604.33	16604.21	16602.86	16603.72	16601.61	16722.90	16843.54	16842.47
End latitude	5801.20	5800.65	5818.97	5820.81	5840.62	5900.55	5920.16	5937.36	5940.00	5920.53	5940.15
End longitude	16605.73	16728.34	16726.37	16604.25	16604.13	16602.99	16603.60	16601.80	16719.81	16843.40	16840.60
Bottom depth (m)	56	62	48	44	37	30	25	27	28	32	31
Duration (h)	0.53	0.51	0.51	0.51	0.50	0.51	0.52	0.52	0.52	0.51	0.51
Distance fished (km)	2.85	2.77	2.79	2.84	2.75	2.83	2.86	2.84	2.96	2.77	2.83
Net width (m)	15.95	16.10	17.17	15.70	14.84	14.74	14.72	15.62	15.68	14.96	15.72
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	39.28	66.77	13.07	52.34	75.87	19.54	61.52	5.00	13.98	75.99	13.58
Sharks	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	39.28	66.77	13.07	52.34	75.87	19.54	61.52	5.00	13.98	75.99	13.58
Alaska plaice	42.60	136.97	131.21	179.95	26.19	35.78	18.57	4.09	4.17	48.06	100.84
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	14.73	1.50	11.64	24.47	26.81	31.08	47.98	77.78	28.35	52.13	21.56
Rock sole	124.94	28.50	126.48	674.63	418.65	7,526.06	173.89	257.83	84.29	142.58	180.02
Yellowfin sole	210.50	569.09	182.97	486.92	207.12	7,245.44	311.31	694.98	380.03	221.14	511.18
Other flatfish	--	--	--	--	0.30	7.07	29.13	44.99	9.84	2.04	8.14
Total flatfish	392.76	736.05	452.30	1,365.97	679.07	14,845.43	580.88	1,079.67	506.69	465.95	821.74
Walleye pollock	16.26	39.82	29.06	5.31	2.93	--	0.01	4.86	--	9.10	14.37
Pacific cod	56.01	156.72	30.59	32.96	9.96	4.33	5.71	--	2.04	114.61	55.32
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	--
Pacific herring	--	0.29	5.97	1.02	7.64	--	--	--	--	0.26	0.13
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	15.50	10.82	2.79	20.51	22.41	18.28	36.99	19.88	12.36	24.44	108.01
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	5.48	0.24	0.92	3.30	0.63	4.76	1.30	18.02	15.04	3.76	8.18
Total roundfish	93.25	207.90	69.33	63.10	43.56	27.37	44.01	42.76	29.43	152.18	186.01
Blue king crab	--	--	1.05	1.10	--	--	--	--	--	--	--
Red king crab	3.49	1.17	0.78	0.32	0.32	2.00	--	--	--	1.49	2.97
Tanner crab, Bairdi	5.51	11.17	0.78	--	--	--	--	--	--	--	--
Tanner crab, opilio	6.02	21.93	1.05	0.14	--	--	--	--	--	--	--
Other crab	128.94	203.59	2.20	7.29	3.51	5.91	2.57	1.37	1.19	7.17	1.57
Shrimp	--	0.14	--	--	--	--	0.01	0.04	0.07	0.00	0.00
Octopus	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	30.97	47.41	4.48	6.00	0.85	3.04	0.19	0.29	0.00	--	--
Starfish	237.84	270.17	39.98	105.09	83.86	112.83	118.79	291.98	55.78	65.07	69.66
Other invertebrates	402.46	317.20	16.42	12.06	11.97	1.89	0.07	0.75	0.30	0.22	0.27
Total invertebrate	815.22	872.78	65.97	131.68	100.50	125.66	121.64	294.43	57.34	73.95	74.47
Miscellaneous	105.88	119.09	0.74	1.91	1.08	--	1.61	0.14	0.27	1.27	0.05
Total catch	1,448.00	2,004.00	601.40	1,615.00	900.08	15,018.00	809.66	1,422.00	607.71	769.34	1,095.85

Appendix B Table 2. --- Continued.

Station	O-01	P-01	P-18	O-18	N-01	M-01	L-01	K-01	J-01	L-01	H-01
Start date and time	6/23/08 11:58	6/23/08 14:14	6/23/08 16:49	6/24/08 7:08	6/24/08 10:36	6/24/08 13:08	6/24/08 15:37	6/24/08 18:03	6/25/08 7:12	6/25/08 10:02	6/25/08 14:00
Haul number	83	84	85	86	87	88	89	90	91	92	93
Start latitude	5939.24	5958.70	6000.66	5940.38	5920.73	5900.80	5840.70	5820.62	5800.41	5740.56	5720.66
Start longitude	16803.23	16800.70	16920.93	16922.30	16804.59	16807.11	16808.07	16809.99	16811.86	16814.43	16816.65
End latitude	5940.68	6000.22	5959.66	5939.00	5919.36	5859.27	5839.19	5819.11	5758.97	5739.17	5719.38
End longitude	16802.42	16800.69	16920.22	16923.32	16805.63	16807.23	16807.77	16809.57	16811.17	16813.47	16815.09
Bottom depth (m)	32	26	39	39	40	42	47	60	67	69	73
Duration (h)	0.50	0.51	0.36	0.50	0.49	0.51	0.52	0.51	0.51	0.51	0.53
Distance fished (km)	2.78	2.81	1.97	2.73	2.72	2.83	2.81	2.84	2.76	2.75	2.84
Net width (m)	15.21	15.65	15.26	15.09	15.55	16.16	16.49	16.82	16.78	16.44	17.32
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	23.88	80.48	37.97	31.06	62.25	27.87	24.54	25.75	25.98	6.44	10.66
Sharks	23.88	80.48	37.97	31.06	62.25	27.87	24.54	25.75	25.98	6.44	10.66
Total elasmobranch	23.62	25.64	46.27	57.18	17.86	51.82	83.88	91.26	300.07	18.97	33.10
Alaska plaice											3.03
Arrowtooth flounder											
Flathead sole											
Greenland turbot											0.05
Pacific halibut	29.94	35.96	14.98	12.44	29.53	41.64	63.92	11.73	13.54	20.60	
Rock sole	91.00	83.89	77.10	68.15	82.59	240.09	457.64	40.35	51.35	56.64	26.64
Yellowfin sole	92.14	1,934.43	91.15	111.69	126.24	140.92	123.67	1,414.59	446.28	135.15	120.42
Other flatfish	0.08		0.16	1.50							0.49
Total flatfish	236.78	2,079.91	229.66	250.97	256.22	474.47	729.11	1,557.92	811.23	231.26	183.74
Walleye pollock	15.95	8.31	12.64	23.54	16.67	7.28	18.37	34.98	70.95	32.82	2.30
Pacific cod	41.55	15.25	75.80	37.37	13.77	6.48	52.74	203.41	65.77	22.82	
Sablefish											
Atka mackerel											
Eelpouts								0.46	0.42	0.48	0.88
Pacific herring	0.47		59.29	0.72	2.89	0.18			0.26		
Pacific ocean perch											
Sculpins	38.61	2.72	30.70	11.37	12.66	4.38	22.06	22.07	16.86	13.00	8.29
Other rockfish											
Other roundfish	2.45	7.63	2.14	0.77	0.46	0.89	1.90	1.72	0.29	0.55	2.76
Total roundfish	99.03	33.91	180.56	73.76	46.45	19.21	95.07	262.64	154.56	69.67	14.23
Blue king crab											
Red king crab	5.96		5.01	5.26	1.64	8.80	2.93				
Tanner crab, Bairdi							0.36	15.42	8.46	7.26	9.30
Tanner crab, Opilio							0.23	18.22	8.25	5.12	4.17
Other crab	2.68	1.69	9.30	9.36	7.10	6.00	25.29	80.21	31.80	38.94	53.95
Shrimp						0.00	0.01				0.02
Octopus											
Squids											
Snails	0.05		2.88	11.82	0.71	2.45	7.65	41.02	39.17	146.97	15.76
Starfish	131.87	53.66	77.62	650.52	69.18	285.51	106.70	146.73	265.92	37.74	209.95
Other invertebrates	0.94	0.10	5.41	6.60	1.71	2.33	14.07	159.56	478.86	1,148.59	103.11
Total invertebrate	141.50	55.45	100.23	683.55	80.34	305.10	157.23	461.15	832.45	1,384.61	396.26
Miscellaneous	0.28	0.25	3.07	6.67	0.94	2.19	3.35	28.97	5.92	83.96	25.09
Total catch	501.47	2,250.00	551.49	1,046.00	446.82	829.11	1,009.76	2,342.00	1,844.00	1,786.00	654.95

Appendix B Table 2. --- Continued.

Station	G-01	G-18	G-19	G-20	HG2019	H-20	HG2120	IH2120	I-20	J12019	J-19	K-19
Start date and time	6/25/08 17:11	6/26/08 7:06	6/26/08 10:09	6/26/08 13:14	6/26/08 15:41	6/26/08 17:50	6/28/08 7:13	6/28/08 10:09	6/28/08 12:33	6/28/08 15:11	6/28/08 18:01	6/29/08 7:07
Haul number	94	95	96	97	98	99	100	101	102	103	104	105
Start latitude	5700.83	5700.13	5700.59	5659.41	5709.00	5719.29	5709.13	5730.37	5739.59	5749.83	5759.52	5819.14
Start longitude	16817.77	16942.88	16903.56	17025.82	17040.67	17023.95	17005.44	17159.14	17020.86	17037.07	17055.80	17052.72
End latitude	5659.45	5659.86	5700.55	5700.62	5710.52	5720.77	5710.37	5730.52	5741.10	5751.24	5801.01	5820.59
End longitude	16816.40	16940.16	16900.79	17027.53	17040.49	17023.84	17006.83	17001.86	17020.84	17038.31	17055.77	17052.27
Bottom depth (m)	77	81	80	61	72	63	49	69	70	66	70	68
Duration (h)	0.52	0.51	0.51	0.51	0.53	0.51	0.51	0.50	0.51	0.52	0.51	0.50
Distance fished (km)	2.90	2.81	2.82	2.83	2.82	2.74	2.70	2.75	2.80	2.88	2.76	2.71
Net width (m)	17.70	16.65	17.05	16.26	17.18	16.83	16.12	16.42	16.49	16.36	16.83	16.15
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	9.01	13.79	2.00	112.27	0.41	38.58	205.23	69.35	89.37	94.22	22.59	67.63
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	9.01	13.79	2.00	112.27	0.41	38.58	205.23	69.35	89.37	94.22	22.59	67.63
Alaska plaice	35.03	3.98	25.04	15.31	7.83	36.30	--	3.85	36.57	104.06	67.07	323.45
Arrowtooth flounder	14.88	65.44	24.58	41.25	12.93	4.54	11.49	5.77	8.09	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	9.49	108.36	76.58	9.36	1.50	1.69	66.92	22.71	22.67	27.98	4.64	0.85
Rock sole	41.28	3.07	14.32	2,734.76	150.11	1,425.75	3,791.43	209.13	636.13	791.99	16.19	73.36
Yellowfin sole	9.26	9.10	6.99	67.23	13.89	69.42	91.21	92.70	687.43	78.82	77.04	331.31
Other flatfish	4.62	189.96	147.51	12.29	6.15	0.91	--	--	5.89	--	--	--
Total flatfish	114.57	114.57	147.51	2,880.20	192.40	1,538.61	3,961.05	334.16	1,396.78	1,002.85	164.94	728.98
Walleye pollock	68.32	214.11	1,160.94	316.39	350.74	1,228.45	--	771.24	138.12	36.61	19.06	55.51
Pacific cod	5.42	51.38	46.15	16.74	19.26	134.50	11.41	236.31	46.25	41.53	35.21	86.53
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	0.40	--	--	--	--	--	--	--	--	--	--	--
Pacific herring	--	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	33.36	33.48	17.00	237.51	6.54	32.75	127.53	70.64	11.46	20.20	4.30	24.55
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Total roundfish	3.71	9.36	2.34	25.75	22.70	16.48	31.73	7.36	18.75	17.52	3.73	0.43
Total roundfish	111.20	308.33	1,226.43	596.37	399.24	1,412.18	170.68	1,083.54	214.58	115.86	62.30	167.03
Blue king crab	--	--	--	8.95	0.85	--	4.24	--	--	--	--	--
Red king crab	--	--	--	18.44	--	5.29	131.02	0.91	--	--	--	--
Tanner crab, Bairdi	10.71	74.79	5.77	22.96	22.93	5.11	3.36	21.09	3.27	2.96	5.89	11.63
Tanner crab, opilio	7.64	34.11	28.52	13.09	26.05	24.53	--	20.72	22.62	101.53	75.41	265.50
Other crab	23.63	39.91	27.69	9.97	109.62	9.06	1.62	51.50	74.69	211.85	49.63	113.52
Shrimp	0.02	--	--	--	--	--	--	--	--	--	--	--
Octopus	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	0.71	0.45	2.54	21.53	4.47	0.93	--	11.68	3.96	16.15	9.67	69.63
Starfish	167.56	41.85	22.12	992.97	33.34	82.90	499.13	702.59	179.51	151.50	25.70	164.73
Other invertebrates	76.42	99.36	12.57	35.09	123.43	18.46	42.12	36.77	118.93	132.79	1,165.66	506.66
Total invertebrate	286.68	290.46	99.21	1,123.00	320.70	146.27	681.49	845.26	402.97	616.78	1,331.96	1,131.67
Miscellaneous	12.99	24.97	15.67	24.75	245.19	9.17	1.06	49.69	21.00	18.08	18.87	13.76
Total catch	597.21	865.85	1,506.99	4,746.29	1,175.29	3,152.90	5,034.00	2,384.00	2,143.89	1,850.00	1,603.00	2,112.00

Appendix B Table 2. --- Continued.

Station	L-19	M-19	N-19	N-20	O-20	P-20	Q-20	Q-21	Q-22	R-22	S-22	S-23	S-24
Start date and time	6/29/08 9:58	6/29/08 13:09	6/29/08 15:44	6/30/08 7:04	6/30/08 9:35	6/30/08 11:58	6/30/08 14:18	6/30/08 16:36	7/1/08 7:04	7/1/08 9:32	7/1/08 12:00	7/1/08 14:27	7/1/08 16:42
Haul number	106	107	108	109	110	111	112	113	114	115	116	117	118
Start latitude	5839.18	5859.59	5919.58	5919.21	5939.44	5959.10	6019.37	6020.15	6019.50	6039.31	6059.09	6100.17	6059.90
Start longitude	17050.51	17048.36	17046.04	17007.58	17005.08	17002.99	17158.12	17123.26	17238.86	17234.61	17234.03	17351.09	17312.71
End latitude	5840.67	5901.04	5921.12	5920.71	5940.96	6000.56	6020.80	6020.35	6020.99	6040.61	6059.87	6100.25	6100.09
End longitude	17050.54	17049.03	17046.21	17007.54	17004.75	17002.27	17157.18	17120.23	17238.77	17233.09	17231.29	17347.94	17309.66
Bottom depth (m)	62	54	50	61	56	54	53	61	66	63	59	63	66
Duration (h)	0.51	0.51	0.51	0.52	0.52	0.51	0.51	0.52	0.51	0.51	0.52	0.51	0.51
Distance fished (km)	2.78	2.77	2.85	2.77	2.85	2.79	2.80	2.82	2.76	2.78	2.87	2.85	2.78
Net width (m)	16.25	15.45	15.54	16.20	16.75	16.45	16.47	17.49	17.19	18.19	16.79	17.52	18.67
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44	44
Skates	98.48	88.75	21.85	41.46	35.04	24.58	35.99	--	8.81	--	--	20.19	--
Sharks	--	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	98.48	88.75	21.85	41.46	35.04	24.58	35.99	--	8.81	--	--	20.19	--
Alaska plaice	116.39	326.25	288.25	368.88	258.61	520.54	289.66	80.13	317.32	46.06	6.45	4.75	4.98
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	--	--	--
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	--	--	--	--	--	--	--	--	--
Pacific halibut	19.14	10.95	0.42	0.45	0.28	2.38	--	0.87	--	--	--	0.64	--
Rock sole	24.21	48.96	43.22	28.30	10.59	22.90	11.14	1.26	1.39	--	--	0.17	--
Yellowfin sole	286.73	182.91	102.43	40.49	101.22	87.11	37.89	30.30	378.33	21.60	4.08	0.42	1.16
Other flatfish	--	--	--	--	--	--	--	0.09	0.40	--	--	--	0.25
Total flatfish	446.46	569.08	434.32	438.12	370.70	632.93	338.69	112.65	697.44	67.66	10.53	5.98	6.39
Walleye pollock	41.59	30.81	16.05	--	0.02	4.44	0.03	2.97	0.04	--	0.03	0.10	0.01
Pacific cod	124.71	48.05	13.27	0.51	13.56	8.99	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	0.32	--	--	0.70	0.34	--	0.72	--	--	--	--	--	2.24
Pacific herring	4.83	5.92	5.71	2.65	1.49	0.16	0.34	0.21	0.17	0.39	0.91	1.77	1.93
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	22.06	23.52	16.20	5.29	8.85	11.12	9.07	0.46	240.36	43.13	13.13	1.87	0.86
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	0.95	2.46	1.32	9.68	10.84	3.18	5.49	2.90	3.06	1.59	0.58	0.83	2.41
Total roundfish	194.46	110.76	52.55	18.84	35.10	27.89	15.65	6.53	243.63	45.11	14.65	4.57	7.46
Blue king crab	--	--	--	--	--	--	--	--	--	--	0.52	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, Bairdi	31.66	8.24	7.67	12.51	2.05	--	--	--	--	--	--	--	--
Tanner crab, opilio	217.20	89.09	34.73	205.55	96.16	141.78	55.57	18.50	28.70	14.88	34.12	25.85	14.28
Other crab	158.52	130.85	141.76	57.58	107.83	62.74	59.03	10.19	5.41	0.59	1.66	4.28	1.52
Shrimp	--	--	--	--	0.01	--	--	--	--	--	--	--	--
Octopus	--	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--	--
Snails	62.52	47.74	24.90	61.20	197.08	77.21	16.27	8.62	19.84	0.99	3.52	2.09	2.00
Starfish	81.29	210.00	364.34	466.92	146.06	59.77	81.31	8.63	10.87	4.52	1.75	137.33	28.54
Other invertebrates	379.10	236.82	350.20	73.87	200.80	231.54	88.01	14.46	18.79	4.08	6.72	9.99	10.81
Total invertebrate	930.29	722.74	923.60	877.63	749.98	553.05	300.20	60.39	83.60	25.07	48.28	179.53	57.14
Miscellaneous	32.31	52.76	60.64	17.96	38.16	28.19	22.15	1.86	3.55	0.11	1.07	0.36	0.09
Total catch	1,702.00	1,548.00	1,498.00	1,394.00	1,238.00	1,268.00	714.51	181.43	1,037.38	137.95	74.53	210.83	72.37

Appendix B Table 2. --- Continued.

Station	R-24	R-23	Q-23	QP2423	PO2423	O-23	O-22	N-22	M-22	L-22	K-22	K-21	J-21
Start date and time	7/2/08 7:06	7/2/08 10:28	7/2/08 13:09	7/2/08 15:36	7/2/08 18:21	7/3/08 7:06	7/3/08 9:30	7/3/08 12:03	7/3/08 14:31	7/3/08 17:07	7/4/08 7:08	7/4/08 9:57	7/4/08 12:26
Haul number	119	120	121	122	123	124	125	126	127	128	129	130	131
Start latitude	6040.48	6040.46	6020.75	6010.28	5950.12	5940.01	5940.02	5920.94	5900.83	5840.77	5819.80	5820.78	5800.51
Start longitude	17313.97	17351.55	17356.05	17339.01	17343.31	17204.58	17242.35	17249.10	17252.15	17255.18	17258.78	17136.82	17140.60
End latitude	6039.39	6039.73	6019.22	6009.38	5949.34	5940.07	5940.02	5919.44	5859.36	5839.29	5821.40	5819.22	5759.26
End longitude	17316.16	17354.32	17355.55	17341.48	17345.94	17207.55	17245.38	17248.78	17251.64	17254.94	17258.89	17136.95	17138.87
Bottom depth (m)	46	60	59	58	75	77	72	74	76	82	84	74	74
Duration (h)	0.51	0.52	0.52	0.52	0.53	0.52	0.53	0.52	0.52	0.51	0.56	0.53	0.54
Distance fished (km)	2.84	2.87	2.86	2.84	2.86	2.80	2.85	2.79	2.78	2.75	2.97	2.88	2.88
Net width (m)	16.84	17.74	16.55	16.67	17.34	17.77	17.23	17.64	17.60	17.03	16.94	16.84	16.30
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44	44
Skates	60.05	--	16.58	5.79	23.77	23.51	13.11	35.45	38.35	31.04	38.55	31.08	22.23
Sharks	--	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	60.05	--	16.58	5.79	23.77	23.51	13.11	35.45	38.35	31.04	38.55	31.08	22.23
Alaska plaice	221.20	10.38	61.57	111.16	63.48	5.65	4.64	1.65	1.19	6.97	6.34	50.90	8.35
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	1.54	14.47	0.66	0.06
Flathead sole	--	--	--	--	--	--	0.06	0.08	0.06	--	--	--	--
Greenland turbot	--	--	--	0.81	1.34	0.94	0.45	--	5.62	14.16	3.45	13.09	1.32
Pacific halibut	9.83	1.02	2.54	21.13	31.02	14.22	2.50	6.58	9.63	8.33	21.77	41.94	37.43
Rock sole	3.18	4.65	101.48	22.92	10.72	1.73	2.62	5.00	7.93	7.03	7.68	17.04	6.50
Yellowfin sole	0.03	--	1.20	--	--	--	--	--	--	1.54	2.66	0.42	--
Other flatfish	234.24	16.05	166.79	156.02	106.56	22.60	10.27	13.31	24.42	40.49	56.37	124.05	53.65
Total flatfish	3.87	0.30	0.09	0.02	22.50	9.14	0.01	6.55	34.39	225.50	260.39	29.19	40.62
Walleye pollock	1.65	--	0.07	0.06	79.99	50.66	4.35	51.81	13.02	91.69	62.69	8.42	14.96
Pacific cod	--	--	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	0.46	2.10	0.95	1.23	3.10	2.59	5.09	2.00	1.22
Eelpouts	0.14	0.12	--	0.01	0.76	0.81	0.03	8.37	0.15	--	--	--	--
Pacific herring	--	--	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	24.46	18.46	51.57	24.24	1.39	3.01	--	1.24	0.03	--	0.02	3.07	5.53
Other rockfish	1.89	1.17	2.50	3.80	8.88	3.42	3.22	0.79	0.39	0.36	1.12	0.39	1.02
Other roundfish	32.02	20.04	54.23	28.13	113.99	69.14	8.56	69.99	51.08	320.13	329.30	43.07	63.35
Total roundfish	13.44	--	8.54	7.27	5.12	1.98	--	--	--	--	--	--	--
Blue king crab	--	--	--	--	--	--	--	--	--	--	--	--	--
Red king crab	0.39	--	--	0.06	--	0.30	0.04	1.58	1.78	1.94	4.68	6.07	11.40
Tanner crab, bairdi	54.48	6.14	14.18	42.17	87.82	107.63	42.00	107.46	141.95	32.69	45.30	159.24	158.55
Tanner crab, opilio	30.06	1.48	358.17	13.27	141.57	61.50	0.36	32.34	23.13	7.78	26.82	79.33	103.90
Shrimp	0.06	--	--	0.52	--	0.00	0.00	0.01	0.01	--	--	--	--
Octopus	--	--	--	--	--	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--	--	--
Snails	131.99	1.51	104.41	3.30	22.41	25.17	--	57.62	36.66	17.30	89.52	17.91	5.03
Starfish	54.84	33.11	14.97	18.58	14.57	25.58	19.09	16.55	41.20	65.84	22.30	121.55	85.39
Other invertebrates	15.84	2.74	218.65	26.63	4.56	27.54	12.62	22.22	43.86	41.25	29.12	82.46	22.69
Total invertebrate	301.11	44.98	718.91	111.79	276.05	249.70	74.12	237.77	288.57	166.79	217.74	466.56	386.95
Miscellaneous	4.36	0.66	63.49	2.66	28.78	38.09	--	44.00	28.81	4.81	26.08	33.58	25.68
Total catch	643.08	81.85	1,020.00	304.94	559.86	409.59	107.68	401.65	432.01	567.94	680.10	701.88	577.66

Appendix B Table 2. -- Continued.

Station	J-22	J12221	I-22	H-22	G-22	GF2221	F-21	E-21	E-20	B-01	C-01
Start date and time	7/4/08 14:59	7/5/08 7:05	7/5/08 9:21	7/5/08 11:49	7/5/08 14:10	7/5/08 16:23	7/6/08 7:10	7/6/08 9:56	7/6/08 12:25	7/10/08 7:13	7/10/08 9:41
Haul number	132	133	134	135	136	137	138	139	140	141	142
Start latitude	5759.67	5750.58	5740.69	5720.82	5700.58	5650.85	5640.70	5620.33	5620.37	5520.41	5539.50
Start longitude	17102.69	17123.80	17106.14	17108.73	17112.97	17130.56	17151.82	17155.24	17029.30	16826.77	16824.84
End latitude	5759.79	5749.32	5739.22	5719.29	5659.03	5649.66	5639.47	5619.96	5620.16	5521.80	5541.03
End longitude	17259.84	17122.36	17106.24	17108.88	17112.72	17132.17	17153.51	17157.87	17032.02	16825.66	16825.03
Bottom depth (m)	85	78	86	83	94	100	97	109	144	146	134
Duration (h)	0.51	0.52	0.50	0.51	0.52	0.51	0.52	0.53	0.51	0.53	0.52
Distance fished (km)	2.83	2.75	2.72	2.84	2.89	2.75	2.86	2.80	2.83	2.83	2.85
Net width (m)	16.85	17.23	17.23	17.23	17.55	17.55	17.55	17.97	18.27	18.16	18.46
Net measured?	Y	N	N	N	N	N	N	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	35.59	21.70	65.90	126.34	48.79	14.24	25.01	5.48	95.55	18.98	8.32
Sharks											
Total elasmobranch	35.59	21.70	65.90	126.34	48.79	14.24	25.01	5.48	95.55	18.98	8.32
Alaska plaice	2.91	7.29		11.09	23.61						
Arrowtooth flounder	40.93	33.15	27.79	91.55	81.39	117.92	143.78	95.97	169.38	212.69	201.32
Flathead sole											
Greenland turbot											
Pacific halibut	6.97	9.77	25.25	14.60	23.55	5.59	12.79	2.51	7.00	3.90	
Rock sole	54.33	137.90	435.29	119.33		0.90		1.06			
Yellowfin sole	27.10	29.50	3.82	2.13							
Other flatfish	2.64			10.53	26.60	17.06	34.20	29.47	26.90	7.44	16.14
Total flatfish	134.88	217.61	492.15	249.22	155.16	141.47	190.77	129.01	203.28	224.03	217.46
Walleye pollock	1,935.09	277.16	566.07	595.10	1,170.92	107.08	1,242.16	15.60	1.20		12.18
Pacific cod	62.48	64.78	42.79	24.23	63.17	23.08	27.20	18.80	49.62	26.53	6.98
Sablefish											
Atka mackerel											
Eelpouts	0.87	10.83	1.18		0.20	0.05		0.04			0.14
Pacific herring											
Pacific ocean perch											
Sculpins	28.77	12.85	57.70	76.32	21.45	37.08	6.89	3.76	6.63	0.17	0.03
Other rockfish											
Other roundfish	1.57	7.27	1.30	3.07	12.62	13.34	3.01	0.09	45.50	0.03	0.26
Total roundfish	2,028.78	372.88	669.04	698.72	1,268.36	180.62	1,279.26	38.29	127.69	26.72	19.59
Blue king crab			0.84								
Red king crab		1.61									
Tanner crab, bairdi	3.45	2.76	10.92	9.82	16.28	19.91	36.43	37.93	16.10	24.54	8.82
Tanner crab, opilio	20.23	23.37	6.11	2.69	56.77	3.97	0.59	3.97			0.55
Other crab	82.40	274.54	12.27	184.55	11.80	67.70	46.60	16.81	17.00	2.10	6.67
Shrimp						0.27		0.02	0.60	0.09	0.84
Octopus											
Squids											
Snails	100.75	60.87	128.47	34.74	7.71	18.51	24.59	10.03	9.99	15.05	4.24
Starfish	103.63	194.59	18.46	146.85	47.82	18.07	5.80	0.39	0.89	0.03	0.06
Other invertebrates	6.63	21.92	178.62	70.97	9.83	17.76	64.65	29.62	4.42	20.93	11.32
Total invertebrate	317.08	579.66	355.68	449.61	150.21	146.19	178.65	98.77	49.00	62.73	32.50
Miscellaneous	29.22	65.34	99.61	87.32	3.37	12.17	5.66	0.91	3.53	0.52	0.31
Total catch	2,708.64	1,280.00	2,026.00	2,006.52	1,930.60	570.10	1,937.10	389.18	479.61	421.72	391.61

Appendix B Table 2. --- Continued.

Station	C-18	D-18	E-22	F-22	F-23	G-23	H-23	I-23	J-23	J-24	I-24
Start date and time	7/10/08 12:38	7/10/08 15:04	7/11/08 7:15	7/11/08 9:52	7/11/08 12:39	7/11/08 15:49	7/11/08 18:37	7/12/08 7:13	7/12/08 9:55	7/12/08 13:00	7/12/08 15:39
Haul number	143	144	145	146	147	148	149	150	151	152	153
Start latitude	5539.76	5559.29	5619.95	5640.05	5639.56	5659.49	5719.05	5738.86	5758.83	5801.00	5740.57
Start longitude	16948.83	16946.34	17119.59	17115.65	17239.46	17236.98	17232.95	17227.83	17224.43	17344.60	17349.49
End latitude	5541.31	5600.69	5620.32	5641.66	5640.67	5701.02	5720.31	5740.37	5800.30	5759.51	5739.05
End longitude	16948.92	16945.29	17116.95	17115.58	17237.58	17236.80	17231.46	17227.57	17223.96	17344.69	17350.03
Bottom depth (m)	135	150	120	112	119	109	101	99	97	104	108
Duration (h)	0.52	0.52	0.52	0.54	0.52	0.53	0.52	0.53	0.53	0.52	0.53
Distance fished (km)	2.87	2.82	2.82	2.99	2.80	2.84	2.77	2.81	2.76	2.77	2.87
Net width (m)	18.43	18.03	18.02	19.12	17.73	17.36	17.63	17.39	17.66	17.43	17.79
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	0.09	27.55	15.78	10.55	0.21	2.27	110.57	102.38	92.13	53.48	15.67
Sharks	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	0.09	27.55	15.78	10.55	0.21	2.27	110.57	102.38	92.13	53.48	15.67
Alaska plaice	--	--	--	--	--	--	--	--	--	--	--
Arrowtooth flounder	149.58	102.77	161.71	52.08	75.94	77.24	250.47	119.03	7.43	--	39.04
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	--	--	--	0.04	--	--	--	--	--	--
Pacific halibut	--	--	32.94	7.35	0.75	10.27	25.23	2.93	3.36	12.44	5.11
Rock sole	5.33	--	--	--	--	--	1.33	4.80	16.21	--	0.19
Yellowfin sole	--	--	--	--	--	--	--	--	--	--	--
Other flatfish	21.08	55.84	40.87	7.31	20.67	17.31	10.06	10.61	5.75	13.39	7.16
Total flatfish	175.99	158.61	235.52	66.74	97.40	104.83	287.09	141.50	104.70	108.98	51.50
Walleye pollock	1.00	112.67	--	201.95	203.58	4,842.41	201.96	1,540.15	82.95	1,566.24	109.34
Pacific cod	23.23	9.94	6.76	2.81	17.28	44.60	119.82	65.60	81.06	51.28	45.15
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	0.12	--	--	0.03	4.51	17.71	6.78	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	--
Pacific herring	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	0.28	--	--	--	--	--	--	--	--	--	--
Sculpins	0.18	5.04	3.95	12.11	2.97	--	33.56	11.08	18.55	93.17	2.46
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	1.28	0.46	0.00	1.68	0.29	16.11	10.10	--	0.16	0.20	1.34
Total roundfish	25.97	128.11	10.71	218.68	224.12	4,903.11	365.47	1,621.33	200.44	1,717.67	158.29
Blue king crab	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, bairdi	5.12	14.16	12.90	6.40	7.37	9.11	9.83	2.66	2.45	1.05	0.03
Tanner crab, opilio	0.38	--	1.25	86.52	76.52	84.01	21.37	53.65	123.06	10.28	12.64
Other crab	4.30	3.67	5.49	15.26	13.34	39.82	24.83	2.15	44.94	9.81	13.28
Shrimp	0.79	0.06	0.12	0.03	0.24	0.08	0.03	--	0.42	0.79	--
Octopus	0.09	--	13.73	--	--	--	--	--	--	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	12.40	1.17	31.99	12.29	5.67	15.42	28.30	2.46	55.87	20.97	13.41
Starfish	0.02	2.98	0.34	4.75	1.04	2.77	1.91	40.70	50.98	76.04	3.67
Other invertebrates	33.46	40.63	394.41	166.89	46.00	15.13	2.26	9.14	13.47	99.19	12.85
Total invertebrate	56.56	62.68	460.22	292.15	150.18	166.34	88.53	110.76	291.19	218.14	55.88
Miscellaneous	4.94	2.05	3.11	4.28	5.66	8.29	9.55	0.12	9.54	4.57	2.75
Total catch	290.06	392.91	798.97	627.62	487.40	5,236.32	1,081.36	2,338.61	910.35	2,473.39	290.47

Appendix B Table 2. --- Continued.

Station	H-24	H-25	I-25	J-25	K-25	L-25	N-25	M-25	M-26	N-26	O-26
Start date and time	7/12/08 18:08	7/13/08 7:30	7/13/08 10:00	7/13/08 12:26	7/13/08 15:28	7/13/08 17:59	7/14/08 7:13	7/14/08 9:55	7/14/08 12:38	7/14/08 15:06	7/14/08 17:35
Haul number	154	155	156	157	158	159	160	161	162	163	164
Start latitude	5721.35	5719.98	5739.61	5759.45	5819.52	5839.52	5920.65	5901.10	5859.53	5919.57	5939.66
Start longitude	17354.28	17311.08	17311.00	17308.36	17304.60	17300.22	17452.03	17454.74	17416.45	17412.13	17409.22
End latitude	5719.92	5721.49	5741.13	5801.00	5821.08	5841.04	5919.39	5859.62	5901.02	5921.12	5941.15
End longitude	17354.80	17311.41	17311.21	17308.18	17304.67	17300.50	17450.43	17454.52	17415.91	17412.24	17409.48
Bottom depth (m)	109	116	119	108	109	112	100	106	117	110	104
Duration (h)	0.51	0.52	0.52	0.53	0.53	0.53	0.51	0.51	0.52	0.53	0.51
Distance fished (km)	2.71	2.81	2.81	2.89	2.90	2.84	2.79	2.75	2.81	2.89	2.77
Net width (m)	19.56	17.43	17.79	17.84	17.67	17.91	17.50	17.75	18.17	18.06	18.13
Net measured?	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Performance	3.13	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	0.17	4.84	1.95	14.61	55.00	101.74	62.02	52.99	160.79	96.87	73.16
Sharks											
Total elasmobranch	0.17	4.84	1.95	14.61	55.00	101.74	62.02	52.99	160.79	96.87	73.16
Alaska plaice				2.62		8.26	3.76	8.25	14.41	80.09	
Arrowtooth flounder	92.06	26.96	97.65	67.75	36.95	149.93	31.81	53.55	83.53	60.77	26.30
Flathead sole											
Greenland turbot							3.90	24.38	0.18	1.38	2.33
Pacific halibut	8.85				29.28	32.91	26.89	35.78	22.75	13.82	5.33
Rock sole				0.63	1.13	33.59	17.14	21.82	14.96	100.31	2.46
Yellowfin sole											
Other flatfish	14.76	5.86	27.25	16.44	9.07	33.81	27.50	33.74	19.97	21.92	26.41
Total flatfish	115.67	32.82	124.91	87.44	76.42	258.50	111.00	177.52	155.80	278.29	62.83
Walleye pollock	25.52	3,162.06	2,640.30	18.13	1,457.76	298.96	1,331.42	370.58	494.72	910.92	1,083.94
Pacific cod	56.12	123.20	65.52	71.03	146.65	91.57	70.46	33.62	84.60	103.72	97.32
Sablefish											
Atka mackerel											
Eelpouts			0.09			0.21	10.76	10.89	1.19	1.29	7.25
Pacific herring						0.20	0.33	0.11			
Pacific ocean perch											
Sculpins	0.17										
Other rockfish	31.77	10.72	9.82	17.28	26.86	39.65	14.48	13.12	19.82	59.88	6.84
Other roundfish	3.71		1.16	0.69		0.55			0.25	0.03	0.87
Total roundfish	117.29	3,295.98	2,716.90	107.14	1,631.27	431.13	1,427.45	428.32	600.58	1,075.85	1,196.21
Blue king crab									1.70		3.52
Red king crab											
Tanner crab, Bairdi	3.33	0.05		44.72	4.22	15.32	9.94	12.31	3.92	1.31	0.35
Tanner crab, Opilio	17.38	17.76	11.86	53.47	40.45	57.39	53.26	28.29	17.98	80.16	32.00
Other crab	32.46		3.34	95.98	91.95	77.56	47.57	70.23	159.08	186.08	54.80
Shrimp	0.23		0.03	0.51	0.09		0.48	0.12	0.15		0.98
Octopus											
Squids											
Snails	12.55	1.21	2.52	40.30	52.38	63.76	39.38	71.20	46.24	66.68	106.79
Starfish	5.43	0.61	7.26	5.49	4.91	6.52	28.85	10.19	3.60	11.24	68.12
Other invertebrates	14.66	7.69	2.53	9.09	28.20	48.68	99.63	52.76	14.13	22.99	64.35
Total invertebrate	86.04	27.31	27.54	249.57	222.20	269.23	279.12	245.10	246.80	368.45	330.91
Miscellaneous	5.95		0.22	16.13	16.90	24.01	21.64	23.66	48.68	34.79	34.04
Total catch	375.84	3,367.86	2,913.26	499.48	2,017.07	1,121.03	1,913.74	955.69	1,219.97	1,889.92	1,724.30

Appendix B Table 2. --- Continued.

Station	P-25	QP2524	Q-25	R-25	S-25	T-25	U-25	V-25	V-26	V-27	V-28
Start date and time	7/15/08 7:12	7/15/08 10:15	7/15/08 14:23	7/15/08 16:54	7/15/08 19:11	7/16/08 7:02	7/16/08 9:30	7/16/08 11:54	7/16/08 14:44	7/16/08 17:28	7/17/08 7:03
Haul number	165	166	167	168	169	170	171	172	173	174	175
Start latitude	6000.88	6011.20	6018.24	6040.21	6059.64	6119.50	6139.33	6158.58	6200.02	6200.08	6200.63
Start longitude	17441.31	17457.72	17437.23	17431.84	17429.60	17425.00	17419.96	17415.02	17531.20	17650.52	17610.39
End latitude	5959.37	6010.06	6017.63	6041.73	6101.16	6121.05	6140.83	6200.08	6159.74	6200.18	6159.11
End longitude	17440.81	17459.80	17437.27	17431.99	17430.13	17424.81	17419.85	17415.02	17528.04	17647.31	17610.02
Bottom depth (m)	74	60	62	67	76	74	70	63	73	80	92
Duration (h)	0.53	0.52	0.22	0.51	0.52	0.53	0.51	0.52	0.53	0.52	0.52
Distance fished (km)	2.83	2.85	1.13	2.82	2.85	2.88	2.78	2.79	2.81	2.82	2.83
Net width (m)	16.65	16.82	16.74	17.82	17.23	17.23	17.39	17.15	17.67	17.54	17.27
Net measured?	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Performance	4.10	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	27.98	14.23	4.96	17.28	5.59	19.42	17.87	9.96	21.82	7.03	28.33
Sharks	27.98	14.23	4.96	17.28	5.59	19.42	17.87	9.96	21.82	7.03	28.33
Total elasmobranch	20.42	28.40	--	13.51	4.34	1.06	3.16	8.24	0.65	1.66	--
Alaska plaice	--	--	--	--	--	--	--	--	--	--	--
Arrowtooth flounder	--	--	--	--	--	--	--	--	--	--	--
Flathead sole	--	--	--	0.01	0.02	--	--	--	--	--	--
Greenland turbot	0.06	0.01	--	0.01	--	--	--	--	--	0.21	0.28
Pacific halibut	6.27	--	1.08	2.76	--	--	0.69	--	--	0.87	--
Rock sole	294.79	60.60	14.04	31.44	0.10	--	--	--	--	--	1.36
Yellowfin sole	--	4.67	0.33	3.30	2.45	1.59	0.84	0.34	--	--	--
Other flatfish	--	--	--	--	--	--	0.04	0.49	0.29	--	--
Total flatfish	321.54	93.68	15.44	51.02	6.91	2.65	4.74	9.07	0.94	2.74	1.65
Walleye pollock	283.38	38.81	69.58	23.31	0.02	--	0.01	--	0.01	--	1,326.22
Pacific cod	183.13	37.05	8.12	33.27	--	--	--	--	--	5.12	102.42
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	--	--	--	--	--	0.12	0.93	5.22	4.85	0.02	3.30
Pacific herring	0.98	--	0.08	0.03	0.49	0.54	0.06	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	47.75	43.42	20.19	81.00	2.25	--	0.61	3.98	0.13	0.26	1.28
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	11.93	4.86	4.61	11.38	1.32	0.75	3.80	3.51	1.07	9.90	2.27
Total roundfish	527.18	124.13	102.59	149.00	4.08	1.41	5.41	12.70	6.06	15.30	1,435.49
Blue king crab	39.13	44.25	17.41	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, bairdi	0.22	0.01	--	0.38	--	--	--	--	--	--	--
Tanner crab, opilio	37.45	26.31	12.88	38.31	16.48	27.73	39.03	20.31	68.77	11.84	28.71
Other crab	169.82	20.31	24.20	11.88	1.75	1.18	2.31	5.87	9.47	5.42	2.49
Shrimp	10.22	2.27	--	0.27	0.04	0.08	0.02	0.12	0.13	--	0.25
Octopus	--	--	--	--	--	--	--	--	0.84	--	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	38.54	14.12	33.65	14.22	1.28	5.86	37.77	238.35	9.64	27.64	4.87
Starfish	8.11	194.77	23.14	6.88	4.50	7.74	29.35	9.96	26.40	16.64	12.08
Other invertebrates	83.11	52.37	94.87	43.15	0.46	12.74	35.99	217.57	30.07	2.37	6.09
Total invertebrate	386.60	354.41	206.15	115.09	24.51	55.33	144.46	492.18	145.32	63.91	54.48
Miscellaneous	17.63	4.93	4.86	0.87	2.05	0.21	1.37	--	0.06	--	1.54
Total catch	1,289.00	591.72	334.45	334.20	49.23	80.75	176.04	533.12	181.23	136.79	1,558.00

Appendix B Table 2. --- Continued.

Station	U-28	U-29	T-29	T-30	S-31	S-30	S-29	R-29	R-30	R-32	R-31
Start date and time	7/17/08 9:27	7/17/08 11:55	7/17/08 14:30	7/17/08 17:06	7/18/08 7:22	7/18/08 9:53	7/18/08 12:29	7/18/08 14:55	7/18/08 17:18	7/19/08 8:50	7/19/08 11:22
Haul number	176	177	178	179	180	181	182	183	184	186	187
Start latitude	6141.31	6140.82	6120.56	6120.03	6059.80	6100.03	6100.53	6041.31	6040.09	6040.70	6040.18
Start longitude	17612.78	17733.56	17739.68	17704.28	17821.82	17700.34	17741.75	17747.41	17713.82	17948.19	17827.99
End latitude	6139.82	6139.62	6119.40	6119.64	6059.22	6100.08	6059.15	6039.82	6040.09	6039.60	6040.26
End longitude	17612.88	17731.60	17741.86	17701.21	17824.67	17703.38	17743.25	17747.72	17710.60	17950.35	17831.15
Bottom depth (m)	95	104	106	116	135	122	112	118	129	161	146
Duration (h)	0.51	0.52	0.53	0.52	0.53	0.52	0.53	0.52	0.54	0.53	0.53
Distance fished (km)	2.75	2.83	2.89	2.84	2.79	2.75	2.89	2.78	2.95	2.84	2.89
Net width (m)	17.55	18.29	17.79	18.10	18.29	18.41	18.26	18.19	18.15	18.06	18.12
Net measured?	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44
Skates	9.20	32.28	24.22	78.89	33.31	47.35	51.57	75.53	60.61	46.34	45.15
Sharks	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	9.20	32.28	24.22	78.89	33.31	47.35	51.57	75.53	60.61	46.34	45.15
Alaska plaice	0.43	--	--	--	--	--	--	--	--	12.06	--
Arrowtooth flounder	--	--	--	57.71	31.11	67.24	--	6.24	28.15	104.87	26.31
Flathead sole	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	0.18	1.19	1.65	32.26	15.88	12.85	5.00	4.56	10.18	10.75	32.86
Pacific halibut	--	0.75	1.39	--	3.24	--	--	0.50	2.01	2.64	--
Rock sole	--	--	2.57	1.21	--	--	1.53	--	0.52	142.28	--
Yellowfin sole	--	0.19	0.55	0.29	--	--	--	--	--	--	--
Other flatfish	--	--	--	57.38	30.19	62.33	--	6.24	12.37	34.91	23.56
Total flatfish	0.61	2.13	6.16	148.85	80.41	142.41	6.53	17.53	53.22	307.51	82.73
Walleye pollock	392.70	390.63	256.83	282.80	766.58	1,823.66	762.95	737.99	361.64	1,546.59	1,209.53
Pacific cod	190.65	51.88	109.34	44.71	18.57	117.10	14.26	7.70	30.94	--	45.13
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	--	--	--	--	--	--	--	--	--
Eelpouts	5.85	3.40	5.36	25.32	35.58	77.50	26.39	37.59	21.35	9.54	33.23
Pacific herring	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--
Sculpins	0.44	12.42	17.32	6.53	6.84	31.90	5.55	11.00	1.31	5.10	5.04
Other rockfish	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	3.63	0.72	0.48	0.24	0.75	1.54	0.14	0.05	1.26	2.76	1.96
Total roundfish	593.27	459.05	389.33	359.59	828.32	2,051.70	809.29	794.33	416.51	1,563.99	1,294.89
Blue king crab	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, Bairdi	--	--	--	--	0.08	0.36	--	0.11	2.88	1.52	--
Tanner crab, Opilio	50.48	23.45	20.90	38.15	58.68	31.90	23.19	12.79	15.97	0.53	9.64
Other crab	2.38	2.33	1.97	35.50	1.15	6.17	17.75	33.38	3.12	29.11	2.50
Shrimp	0.33	0.62	0.20	0.17	7.45	18.20	0.56	0.30	1.42	8.18	9.02
Octopus	--	--	--	--	3.15	--	--	0.58	--	0.92	--
Squids	--	--	--	--	--	--	--	--	--	--	--
Snails	1.64	6.25	6.19	64.86	21.19	110.92	58.12	92.65	33.29	77.32	60.46
Starfish	4.28	1.12	0.60	46.21	83.58	438.12	42.67	86.55	103.07	7.28	219.53
Other invertebrates	0.26	2.24	1.19	3.98	9.35	26.98	3.39	29.73	10.89	53.71	10.07
Total invertebrate	59.36	36.01	31.04	188.87	184.61	632.65	145.68	256.10	170.64	178.58	311.22
Miscellaneous	0.34	0.28	0.68	8.82	3.44	10.45	5.65	12.94	2.64	28.66	13.43
Total catch	690.42	569.27	534.55	790.29	1,130.19	2,892.33	1,022.00	1,158.24	706.36	2,958.90	1,747.55

Appendix B Table 2. --- Continued.

Station	Q-31	P-32	P-31	P-30	Q-30	Q-29	Q-28	P-29	P-28	O-28	O-29	O-30
Start date and time	7/19/08 14:12	7/19/08 17:49	7/20/08 7:45	7/20/08 9:52	7/20/08 12:57	7/20/08 15:37	7/20/08 18:12	7/21/08 7:30	7/21/08 10:04	7/21/08 13:11	7/21/08 16:05	7/21/08 18:33
Haul number	188	189	190	191	192	193	194	195	196	197	198	199
Start latitude	6020.38	6000.98	6000.27	6000.24	6020.15	6020.10	6020.06	5959.69	6000.08	5939.92	5939.88	5939.94
Start longitude	17837.56	17806.59	17846.03	17715.67	17715.58	17756.61	17635.21	17603.03	17641.89	17653.06	17608.66	17729.23
End latitude	6018.82	6000.02	6000.24	6000.14	6020.07	6020.12	6020.06	5959.59	6000.20	5938.37	5939.96	5940.01
End longitude	17837.59	17804.40	17849.04	17718.73	17718.64	17759.63	17638.36	17606.14	17644.90	17652.71	17605.65	17726.20
Bottom depth (m)	147	141	137	141	137	121	111	130	118	126	137	136
Duration (h)	0.55	0.53	0.52	0.52	0.53	0.52	0.54	0.53	0.53	0.54	0.53	0.53
Distance fished (km)	2.89	2.70	2.80	2.86	2.83	2.79	2.91	2.91	2.82	2.90	2.84	2.86
Net width (m)	18.09	17.76	18.48	17.97	17.97	17.79	17.79	17.97	17.79	17.97	17.97	18.17
Net measured?	Y	Y	Y	N	N	N	N	N	N	N	N	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	0
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	1.58	10.49	36.80	41.04	77.88	159.50	124.25	71.88	142.57	38.86	100.01	76.85
Sharks												
Total elasmobranch	1.58	10.49	36.80	41.04	77.88	159.50	124.25	71.88	142.57	38.86	100.01	76.85
Alaska plaice						3.90						
Arrowtooth flounder	17.89	84.80	63.15	43.92	195.55	191.99	2.62	72.18	61.32	11.37	121.74	78.95
Flathead sole												
Greenland turbot	10.82	54.75	0.29	6.39	43.80		11.09	2.41	33.18	33.02	0.28	11.95
Pacific halibut		19.56						1.69				
Rock sole					5.46	8.18	4.47	1.39	2.64	16.77	4.63	2.37
Yellowfin sole												
Other flatfish	17.89	22.89	21.07	26.48	117.95	68.20	1.86	5.79	12.45	24.47	38.12	31.64
Total flatfish	46.60	182.01	84.50	76.78	362.76	272.26	20.04	83.45	109.60	170.74	164.76	124.92
Walleye pollock	4,111.33	1,241.36	1,464.90	1,464.34	1,262.25	884.51	2,389.46	741.95	1,580.84	294.78	314.20	1,152.49
Pacific cod		73.53	82.67	38.20	32.80	107.15	74.28	21.33	63.88	109.98	44.82	125.50
Sablefish												
Atka mackerel												
Eelpouts	21.59		23.51	24.24	32.31	28.39	37.13	39.87	6.34	9.49	66.33	14.87
Pacific herring												
Pacific ocean perch												
Sculpins	13.33	11.36	4.50	0.81	88.68	159.41	17.63	14.87	4.91	127.04	18.90	16.34
Other rockfish												
Other roundfish	4.45		0.05	0.16	0.02			1.12	0.09	1.25	0.89	1.18
Total roundfish	4,150.70	1,326.25	1,575.63	1,527.75	1,416.05	1,179.47	2,518.50	819.15	1,656.05	542.54	445.14	1,310.38
Blue king crab												
Red king crab												
Tanner crab, Bairdi	0.30			0.25		1.83	2.83	1.02	0.27	2.35	4.39	4.39
Tanner crab, Opilio	6.47	0.01	1.14	4.03	25.31	12.32	32.06	32.10	12.33	77.02	5.27	5.07
Other crab	29.65	2.73	3.61	1.62	44.68	43.04	12.80	33.79	18.86	23.04	33.34	7.71
Shrimp	8.74	0.47	6.04	7.44	1.98	1.09	0.45	3.45	0.10	5.35	26.86	9.27
Octopus	0.09							0.80				8.36
Squids												
Snails	75.45	5.86	16.41	63.59	107.46	239.11	91.85	74.11	63.44	100.33	70.09	104.64
Starfish	360.02	15.68	78.53	338.54	260.44	53.39	55.74	316.24	7.89	16.01	171.51	279.90
Other invertebrates	724.39	466.33	56.51	13.16	0.95	14.50	13.65	19.51	12.77	44.31	112.34	35.06
Total invertebrate	1,205.10	491.07	162.24	428.63	440.82	365.28	209.39	481.02	115.65	268.42	423.80	454.38
Miscellaneous	29.49	6.51	0.15	3.41	2.73	17.90	5.68	14.65	8.20	13.38	16.95	19.37
Total catch	5,443.89	2,062.89	1,885.07	2,096.48	3,329.95	4,154.20	2,885.86	1,489.79	2,044.45	1,106.47	1,208.12	2,039.64

Appendix B Table 2. --- Continued.

Station	O-31	N-31	N-30	N-29	N-28	M-28	M-29	M-30	M-31	M-32	L-31	L-30
Start date and time	7/22/08 7:43	7/22/08 10:26	7/22/08 13:01	7/22/08 15:26	7/22/08 17:56	7/23/08 7:40	7/23/08 10:23	7/23/08 12:42	7/23/08 15:06	7/23/08 17:35	7/24/08 7:52	7/24/08 10:24
Haul number	200	201	202	203	204	205	206	207	208	209	210	211
Start latitude	5940.56	5920.20	5920.01	5920.16	5920.33	5859.21	5900.14	5900.04	5859.93	5859.98	5840.15	5840.02
Start longitude	17850.77	17854.56	17735.74	17613.73	17652.73	17658.36	17617.75	17741.57	17704.18	17825.51	17707.80	17747.20
End latitude	5939.15	5919.87	5920.06	5920.18	5920.28	5900.81	5900.16	5900.13	5859.84	5859.93	5839.92	5840.08
End longitude	17851.77	17857.50	17738.66	17616.66	17655.75	17658.00	17614.79	17738.70	17701.33	17822.51	17710.66	17750.06
Bottom depth (m)	173	150	135	136	132	130	133	135	137	134	136	140
Duration (h)	0.52	0.52	0.52	0.51	0.52	0.55	0.52	0.51	0.51	0.52	0.52	0.51
Distance fished (km)	2.78	2.86	2.78	2.78	2.88	2.98	2.84	2.76	2.75	2.89	2.81	2.78
Net width (m)	18.09	17.92	17.59	17.25	17.97	18.69	17.65	17.63	17.74	17.92	17.87	17.62
Net measured?	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0	3.10
Gear	44	44	44	44	44	44	44	44	44	44	44	44
Skates	98.91	71.17	42.20	189.89	16.08	7.12	35.21	27.20	59.90	42.20	5.43	--
Sharks	--	--	--	--	--	--	--	--	--	--	--	--
Total elasmobranch	98.91	71.17	42.20	189.89	16.08	7.12	35.21	27.20	59.90	42.20	5.43	--
Alaska plaice	--	--	--	--	4.92	--	--	--	59.90	42.20	5.43	--
Arrowtooth flounder	567.19	356.80	41.42	93.69	7.34	116.74	209.65	215.18	359.76	110.83	191.35	146.42
Flathead sole	--	--	--	--	--	--	--	--	--	--	--	--
Greenland turbot	--	9.85	21.56	18.24	--	--	0.02	--	--	--	--	--
Pacific halibut	15.53	38.33	10.32	25.03	--	6.77	8.93	--	21.32	14.57	10.70	0.64
Rock sole	11.25	2.66	4.02	2.06	0.67	9.54	8.80	9.19	--	52.71	1.09	2.92
Yellowfin sole	--	--	--	--	--	--	--	--	--	--	--	--
Other flatfish	37.29	29.07	14.30	36.70	5.27	8.15	17.01	13.80	7.84	17.05	31.83	26.63
Total flatfish	631.26	436.70	91.62	175.72	18.20	141.20	244.40	238.17	388.92	195.15	234.98	176.61
Walleye pollock	1,431.88	52.42	716.91	1,933.32	193.81	84.37	--	37.09	0.69	0.82	0.89	0.87
Pacific cod	40.30	17.32	31.64	295.66	8.31	14.12	35.94	31.42	23.55	3.40	30.63	50.32
Sablefish	--	--	--	--	--	--	--	--	--	--	--	--
Atka mackerel	--	--	1.98	1.34	0.14	0.47	0.24	--	--	--	--	--
Eelpouts	--	--	--	--	--	--	--	--	--	--	--	--
Pacific herring	--	--	--	--	--	--	--	--	--	--	--	--
Pacific ocean perch	--	--	--	--	--	--	--	--	--	--	--	--
Sculpins	12.17	7.05	43.14	17.41	11.71	0.03	16.66	4.33	--	10.54	--	--
Other rockfish	--	--	--	--	--	--	--	--	--	--	--	--
Other roundfish	--	3.53	1.55	4.74	--	1.17	0.86	0.03	--	0.20	--	0.35
Total roundfish	1,484.35	80.31	795.22	2,252.47	213.97	100.16	53.69	72.86	24.24	14.96	31.52	51.54
Blue king crab	--	--	--	--	--	--	--	--	--	--	--	--
Red king crab	--	--	--	--	--	--	--	--	--	--	--	--
Tanner crab, bairdi	6.67	0.66	3.20	5.15	--	2.45	1.15	0.70	--	0.63	1.19	1.53
Tanner crab, opilio	0.39	0.04	0.33	0.64	0.03	1.13	0.22	0.08	0.04	--	0.01	0.01
Other crab	1.87	2.25	19.10	0.14	2.40	14.20	7.93	2.57	3.36	12.17	14.85	17.44
Shrimp	0.04	--	6.36	--	0.01	0.19	0.05	0.15	0.05	--	0.02	--
Octopus	--	--	--	--	--	--	--	--	--	0.01	3.31	0.12
Squids	--	--	--	--	--	--	--	--	--	--	--	--
Snails	13.97	19.72	67.49	--	5.28	13.25	23.08	21.52	15.58	8.21	5.19	7.28
Starfish	1.54	5.33	233.19	10.49	1.78	3.86	6.59	6.65	3.14	2.62	0.03	0.68
Other invertebrates	3.59	12.65	54.94	244.30	3.74	7.66	22.26	13.76	22.48	25.03	9.71	2.29
Total invertebrate	28.07	40.66	384.61	260.72	13.24	42.74	61.28	45.43	44.65	48.66	34.31	29.35
Miscellaneous	0.26	1.77	16.22	--	1.33	6.25	4.18	2.76	2.32	1.83	5.33	9.71
Total catch	2,411.28	1,207.07	1,404.30	2,958.70	270.93	359.03	690.61	610.95	890.71	423.36	415.47	360.56

Appendix B Table 2. -- Continued.

Station	L-29	L-28
Start date and time	7/24/08 12:53	7/24/08 15:15
Haul number	212	213
Start latitude	5840.12	5844.26
Start longitude	17626.05	17501.44
End latitude	5840.27	5844.86
End longitude	17628.98	17504.25
Bottom depth (m)	136	144
Duration (h)	0.51	0.53
Distance fished (km)	2.86	2.94
Net width (m)	17.91	17.71
Net measured?	Y	Y
Performance	0	0
Gear	44	44
Skates	--	6.41
Sharks	--	--
Total elasmobranch	--	6.41
Alaska plaice	--	--
Arrowtooth flounder	89.55	407.73
Flathead sole	--	--
Greenland turbot	0.16	--
Pacific halibut	3.57	5.69
Rock sole	4.05	8.78
Yellowfin sole	--	--
Other flatfish	12.82	19.58
Total flatfish	110.14	441.78
Walleye pollock	--	--
Pacific cod	12.35	15.70
Sablefish	--	--
Atka mackerel	--	--
Eelpouts	--	--
Pacific herring	--	--
Pacific ocean perch	--	--
Sculpins	3.18	5.01
Other rockfish	--	--
Other roundfish	0.01	0.18
Total roundfish	15.54	20.89
Blue king crab	--	--
Red king crab	--	--
Tanner crab, bairdi	1.35	3.72
Tanner crab, opilio	--	0.17
Other crab	13.33	9.00
Shrimp	0.01	0.06
Octopus	4.49	0.01
Squids	--	--
Snails	4.87	2.69
Starfish	0.02	2.41
Other invertebrates	2.33	6.28
Total invertebrate	26.40	24.34
Miscellaneous	3.96	2.86
Total catch	176.21	536.87

Appendix C: Rank Order of Relative Abundance of Fishes and Invertebrates

Appendix C ranks all fishes and invertebrates identified during the 2008 eastern Bering Sea bottom trawl survey by descending unweighted CPUE (kg/ha).

Appendix C Table 1. -- Rank of fish and invertebrate taxa by unweighted total CPUE (kg/ha) from the 2008 eastern Bering Sea bottom trawl survey.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
1	21740	61.6758	50.2855	47.7769	0.2186	0.2186	<i>Theragra chalcogramma</i>
2	10260	45.5971	61.6422	30.2087	0.1616	0.3801	<i>Lepidopsetta</i> sp.
3	10210	41.8510	30.6552	30.9990	0.1483	0.5285	<i>Limanda aspera</i>
4	81742	16.5378	1.9393	13.8083	0.0586	0.5871	<i>Asterias amurensis</i>
5	10130	10.2844	1.9406	7.5540	0.0364	0.6235	<i>Hippoglossoides elassodon</i>
6	10285	10.1460	1.0287	8.1581	0.0360	0.6595	<i>Pleuronectes quadrituberculatus</i>
7	10110	10.1146	1.1358	8.0258	0.0358	0.6953	<i>Atheresthes stomias</i>
8	21720	9.1223	0.4148	7.8600	0.0323	0.7276	<i>Gadus macrocephalus</i>
9	471	7.5191	0.1841	6.6780	0.0266	0.7543	<i>Bathyraja parmifera</i>
10	98082	4.9208	0.8331	3.1319	0.0174	0.7717	<i>Styela rustica</i>
11	68580	4.8637	0.2429	3.8978	0.0172	0.7889	<i>Chionoecetes opilio</i>
12	83020	4.6699	0.6328	3.1108	0.0165	0.8055	<i>Gorgonocephalus eucnemis</i>
13	99994	3.5348	0.1635	2.7422	0.0125	0.8180	empty gastropod shells
14	91000	3.5301	3.1277	0.0638	0.0125	0.8305	Porifera
15	98205	3.1649	1.1592	1.0547	0.0112	0.8417	<i>Halocynthia aurantium</i>
16	10120	2.8564	0.0356	2.4868	0.0101	0.8519	<i>Hippoglossus stenolepis</i>
17	69086	2.2741	0.0829	1.7097	0.0081	0.8599	<i>Pagurus trigonocheirus</i>
18	69322	2.1512	0.2293	1.2128	0.0076	0.8675	<i>Paralithodes camtschaticus</i>
19	68560	2.0416	0.1830	1.2032	0.0072	0.8748	<i>Chionoecetes bairdi</i>
20	71820	1.9021	0.1276	1.2021	0.0067	0.8815	<i>Neptunea pribiloffensis</i>
21	81780	1.8855	0.2206	0.9649	0.0067	0.8882	<i>Ctenodiscus crispatus</i>
22	21110	1.6055	1.0167	0.0000	0.0057	0.8939	<i>Clupea pallasi</i>
23	21370	1.5393	0.0470	1.1144	0.0055	0.8994	<i>Myoxocephalus polyacanthocephalus</i>
24	10220	1.4480	0.1115	0.7936	0.0051	0.9045	<i>Platichthys stellatus</i>
25	69060	1.3829	0.0361	1.0103	0.0049	0.9094	<i>Pagurus aleuticus</i>
26	10112	1.1673	0.0162	0.9179	0.0041	0.9135	<i>Atheresthes evermanni</i>
27	21371	1.1364	0.0337	0.7764	0.0040	0.9175	<i>Myoxocephalus jaok</i>
28	71884	1.1217	0.0344	0.7582	0.0040	0.9215	<i>Neptunea heros</i>
29	98105	1.0615	0.1117	0.4064	0.0038	0.9253	<i>Boltenia ovifera</i>
30	80590	1.0341	0.0313	0.6875	0.0037	0.9289	<i>Leptasterias polaris</i>
31	98200	1.0172	0.2356	0.0659	0.0036	0.9326	<i>Halocynthia</i> sp.

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
32	21347	0.9863	0.1136	0.3255	0.0035	0.9360	<i>Hemilepidotus jordani</i>
33	69120	0.8969	0.0279	0.5698	0.0032	0.9392	<i>Pagurus capillatus</i>
34	40504	0.8875	0.0139	0.6566	0.0031	0.9424	<i>Chrysaora melanaster</i>
35	21725	0.8612	0.4032	0.0000	0.0031	0.9454	<i>Boreogadus saida</i>
36	83320	0.7988	0.0365	0.4243	0.0028	0.9483	<i>Ophiura sarsi</i>
37	68577	0.7978	0.0398	0.4066	0.0028	0.9511	<i>Hyas coarctatus</i>
38	71882	0.7964	0.0157	0.5506	0.0028	0.9539	<i>Neptunea ventricosa</i>
39	71870	0.7612	0.0191	0.4907	0.0027	0.9566	<i>Neptunea lyrata</i>
40	21420	0.6513	0.0093	0.4618	0.0023	0.9589	<i>Hemiripterus bolini</i>
41	82510	0.5757	0.2276	0.0000	0.0020	0.9609	<i>Strongylocentrotus droebachiensis</i>
42	43010	0.4944	0.0544	0.0372	0.0018	0.9627	<i>Metridium</i> sp.
43	43021	0.4785	0.0299	0.1395	0.0017	0.9644	<i>Metridium farcimen</i>
44	43090	0.4433	0.0108	0.2399	0.0016	0.9660	<i>Liponema brevicornis</i>
45	69095	0.4418	0.0050	0.3029	0.0016	0.9675	<i>Pagurus rathbuni</i>
46	82522	0.4381	0.1300	0.0000	0.0016	0.9691	<i>Strongylocentrotus polyacanthus</i>
47	20040	0.4036	0.0040	0.2803	0.0014	0.9705	<i>Podothecus accipenserinus</i>
48	80200	0.3813	0.0085	0.2006	0.0014	0.9719	<i>Lethasterias nanimensis</i>
49	24191	0.3698	0.0061	0.2166	0.0013	0.9732	<i>Lycodes brevipes</i>
50	72500	0.3612	0.0034	0.2465	0.0013	0.9745	<i>Fusitriton oregonensis</i>
51	71753	0.3450	0.0197	0.0700	0.0012	0.9757	<i>Pyrulofusus deformis</i>
52	10200	0.3400	0.0121	0.1243	0.0012	0.9769	<i>Glyptocephalus zachirus</i>
53	98310	0.3229	0.0031	0.2138	0.0011	0.9780	<i>Aplidium</i> sp.
54	69070	0.2777	0.0031	0.1690	0.0010	0.9790	<i>Pagurus confragosus</i>
55	10115	0.2589	0.0035	0.1437	0.0009	0.9799	<i>Reinhardtius hippoglossoides</i>
56	21368	0.2487	0.0038	0.1286	0.0009	0.9808	<i>Myoxocephalus verrucosus</i>
57	99993	0.2417	0.0010	0.1812	0.0009	0.9817	empty bivalve shells
58	10211	0.2131	0.0028	0.1098	0.0008	0.9824	<i>Limanda proboscidea</i>
59	69090	0.2105	0.0016	0.1324	0.0007	0.9832	<i>Pagurus ochotensis</i>
60	435	0.1867	0.0010	0.1258	0.0007	0.9838	<i>Bathyraja interrupta</i>
61	69323	0.1772	0.0028	0.0726	0.0006	0.9845	<i>Paralithodes platypus</i>
62	99997	0.1734	0.0063	0.0182	0.0006	0.9851	unsorted catch and debris
63	71001	0.1708	0.0017	0.0897	0.0006	0.9857	gastropod eggs

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
64	80594	0.1633	0.0028	0.0600	0.0006	0.9863	<i>Leptasterias arctica</i>
65	80020	0.1610	0.0032	0.0510	0.0006	0.9868	<i>Evasterias echinosoma</i>
66	82511	0.1315	0.0060	0.0000	0.0005	0.9873	<i>Strongylocentrotus</i> sp.
67	71750	0.1243	0.0022	0.0317	0.0004	0.9877	<i>Volutopsis</i> sp.
68	72752	0.1225	0.0006	0.0749	0.0004	0.9882	<i>Buccinum scalariforme</i>
69	85201	0.1215	0.0023	0.0284	0.0004	0.9886	<i>Cucumaria fallax</i>
70	99990	0.1139	0.0130	0.0000	0.0004	0.9890	invertebrate unident.
71	472	0.1133	0.0041	0.0000	0.0004	0.9894	<i>Bathyraja aleutica</i>
72	40500	0.1080	0.0009	0.0484	0.0004	0.9898	Scyphozoa
73	69042	0.1011	0.0008	0.0457	0.0004	0.9901	<i>Pagurus brandti</i>
74	24185	0.0938	0.0002	0.0639	0.0003	0.9905	<i>Lycodes palearis</i>
75	72740	0.0927	0.0006	0.0430	0.0003	0.9908	<i>Buccinum</i> sp.
76	68578	0.0897	0.0004	0.0528	0.0003	0.9911	<i>Hyas lyratus</i>
77	66031	0.0840	0.0004	0.0444	0.0003	0.9914	<i>Pandalus borealis</i>
78	69061	0.0805	0.0003	0.0458	0.0003	0.9917	<i>Labidochirus splendescens</i>
79	72743	0.0787	0.0003	0.0477	0.0003	0.9920	<i>Buccinum angulosum</i>
80	68590	0.0783	0.0001	0.0549	0.0003	0.9923	<i>Chionoecetes hybrid</i>
81	20720	0.0761	0.0007	0.0230	0.0003	0.9925	<i>Bathymaster signatus</i>
82	81315	0.0755	0.0055	0.0000	0.0003	0.9928	<i>Pteraster tesselatus</i>
83	50161	0.0710	0.0007	0.0210	0.0003	0.9931	<i>Aphrodita</i> sp.
84	71747	0.0706	0.0005	0.0282	0.0003	0.9933	<i>Pyrulofusus</i> sp.
85	21316	0.0647	0.0016	0.0000	0.0002	0.9935	<i>Gymnocanthus galeatus</i>
86	98320	0.0644	0.0027	0.0000	0.0002	0.9938	<i>Synoicum</i> sp.
87	40561	0.0569	0.0002	0.0293	0.0002	0.9940	<i>Cyanea capillata</i>
88	71756	0.0559	0.0005	0.0111	0.0002	0.9942	<i>Volutopsis fragilis</i>
89	420	0.0559	0.0012	0.0000	0.0002	0.9944	<i>Raja binoculata</i>
90	71886	0.0555	0.0001	0.0327	0.0002	0.9946	<i>Clinopegma</i> (=Neptunea)
91	72755	0.0552	0.0002	0.0310	0.0002	0.9948	<i>Buccinum polare</i>
92	95000	0.0547	0.0008	0.0000	0.0002	0.9949	Bryozoa unident.
93	42003	0.0529	0.0014	0.0000	0.0002	0.9951	Virgularidae
94	69400	0.0518	<0.0001	0.0326	0.0002	0.9953	<i>Erimacrus isenbeckii</i>
95	20322	0.0484	0.0004	0.0104	0.0002	0.9955	<i>Anarhichas orientalis</i>

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
96	65201	0.0447	0.0006	0.0000	0.0946	0.0002	<i>Balanus</i> sp.
97	21314	0.0425	0.0003	0.0095	0.0754	0.0002	<i>Gymnocanthus pistilliger</i>
98	69121	0.0421	0.0002	0.0136	0.0705	0.0001	<i>Elassochirus cavimanus</i>
99	71769	0.0411	0.0001	0.0209	0.0613	0.0001	<i>Beringius</i> sp.
100	41201	0.0388	<0.0001	0.0225	0.0550	0.0001	<i>Gersemia</i> sp.
101	43030	0.0387	0.0001	0.0174	0.0599	0.0001	<i>Stomphia</i> sp.
102	74120	0.0380	0.0003	0.0020	0.0741	0.0001	<i>Painopecten caurinus</i>
103	71761	0.0370	<0.0001	0.0182	0.0557	0.0001	<i>Pyrulofusus melonis</i>
104	81355	0.0350	<0.0001	0.0168	0.0531	0.0001	<i>Pteraster obscurus</i>
105	23041	0.0340	<0.0001	0.0258	0.0422	0.0001	<i>Mallotus villosus</i>
106	75285	0.0325	0.0003	0.0000	0.0658	0.0001	<i>Serripes groenlandicus</i>
107	98300	0.0307	<0.0001	0.0113	0.0501	0.0001	compound ascidian unident.
108	74104	0.0273	0.0004	0.0000	0.0663	<0.0001	<i>Chlamys</i> sp.
109	71772	0.0261	<0.0001	0.0072	0.0451	<0.0001	<i>Beringius beringii</i>
110	43042	0.0245	0.0002	0.0000	0.0515	<0.0001	<i>Urticina crassicornis</i>
111	85202	0.0245	0.0003	0.0000	0.0595	<0.0001	<i>Cucumaria frondosa</i>
112	71891	0.0233	<0.0001	0.0101	0.0366	<0.0001	<i>Plicifusus kroyeri</i>
113	22205	0.0231	<0.0001	0.0097	0.0364	<0.0001	<i>Liparis gibbus</i>
114	85220	0.0227	0.0003	0.0000	0.0581	<0.0001	<i>Psolus squamatus</i>
115	24184	0.0208	<0.0001	0.0081	0.0336	<0.0001	<i>Lycodes raridens</i>
116	82740	0.0195	<0.0001	0.0029	0.0362	<0.0001	<i>Echinarachnius parma</i>
117	78403	0.0189	<0.0001	0.0011	0.0366	<0.0001	<i>Octopus dofleini</i>
118	71511	0.0188	0.0001	0.0000	0.0386	<0.0001	Naticidae eggs
119	42000	0.0187	0.0002	0.0000	0.0447	<0.0001	<i>Pennatulacea</i>
120	21592	0.0186	<0.0001	0.0025	0.0348	<0.0001	<i>Trichodon trichodon</i>
121	68781	0.0186	<0.0001	0.0085	0.0286	<0.0001	<i>Telmessus cheiragonus</i>
122	71800	0.0183	<0.0001	0.0054	0.0313	<0.0001	<i>Neptunea</i> sp.
123	43000	0.0181	<0.0001	0.0074	0.0288	<0.0001	Actiniaria
124	21390	0.0178	<0.0001	0.0110	0.0247	<0.0001	<i>Dasycottus setiger</i>
125	21438	0.0175	<0.0001	0.0101	0.0249	<0.0001	<i>Icelus spiniger</i>
126	75111	0.0156	<0.0001	0.0095	0.0218	<0.0001	<i>Mactromeris polynyma</i>
127	71524	0.0155	<0.0001	0.0040	0.0269	<0.0001	<i>Cryptonatica</i> sp.

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
128	75286	0.0152	<0.0001	0.0025	<0.0001	0.9986	<i>Serripes lapercusii</i>
129	71835	0.0134	<0.0001	0.0058	<0.0001	0.9986	<i>Neptunea borealis</i>
130	21348	0.0131	<0.0001	0.0012	<0.0001	0.9987	<i>Hemilepidotus papilio</i>
131	66045	0.0117	<0.0001	0.0003	<0.0001	0.9987	<i>Pandalus goniurus</i>
132	80015	0.0110	0.0001	0.0000	<0.0001	0.9988	<i>Evasterias troschelii</i>
133	30420	0.0106	0.0001	0.0000	<0.0001	0.9988	<i>Sebastes polyspinis</i>
134	72063	0.0104	<0.0001	0.0047	<0.0001	0.9988	<i>Aforia circinata</i>
135	72751	0.0100	<0.0001	0.0043	<0.0001	0.9989	<i>Buccinum plectrum</i>
136	21355	0.0095	<0.0001	0.0000	<0.0001	0.9989	<i>Triglops pingeli</i>
137	68510	0.0087	<0.0001	0.0032	<0.0001	0.9989	<i>Oregonia gracilis</i>
138	81870	0.0086	<0.0001	0.0000	<0.0001	0.9990	<i>Dipsacaster borealis</i>
139	22236	0.0084	<0.0001	0.0031	<0.0001	0.9990	<i>Careproctus rastrinus</i>
140	81095	0.0083	<0.0001	0.0038	<0.0001	0.9990	<i>Crossaster papposus</i>
141	10270	0.0082	<0.0001	0.0000	<0.0001	0.9991	<i>Isopsetta isolepis</i>
142	98100	0.0081	<0.0001	0.0000	<0.0001	0.9991	<i>Boltenia</i> sp.
143	95036	0.0080	<0.0001	0.0000	<0.0001	0.9991	<i>Alcyonidium pedunculatum</i>
144	23010	0.0073	<0.0001	0.0040	<0.0001	0.9992	<i>Thaleichthys pacificus</i>
145	71010	0.0072	<0.0001	0.0014	<0.0001	0.9992	<i>Nudibranchia unident.</i>
146	22258	0.0070	<0.0001	0.0000	<0.0001	0.9992	<i>Careproctus</i> sp.
147	20006	0.0070	<0.0001	0.0032	<0.0001	0.9992	<i>Leptagonus frenatus</i>
148	71030	0.0069	<0.0001	0.0000	<0.0001	0.9992	<i>Tritonia diomedea</i>
149	74562	0.0068	<0.0001	0.0013	<0.0001	0.9993	<i>Musculus discors</i>
150	10180	0.0065	<0.0001	0.0000	<0.0001	0.9993	<i>Microstomus pacificus</i>
151	95030	0.0063	<0.0001	0.0000	<0.0001	0.9993	<i>Flustra serrulata</i>
152	40501	0.0063	<0.0001	0.0000	<0.0001	0.9993	<i>Chrysaora</i> sp.
153	71764	0.0061	<0.0001	0.0000	<0.0001	0.9994	<i>Volutopsius middendorffii</i>
154	22238	0.0060	<0.0001	0.0000	<0.0001	0.9994	<i>Liparis tunicatus</i>
155	65203	0.0059	<0.0001	0.0000	<0.0001	0.9994	<i>Balanus evermanni</i>
156	56311	0.0057	<0.0001	0.0034	<0.0001	0.9994	<i>Eumoe nodosa</i>
157	71763	0.0055	<0.0001	0.0000	<0.0001	0.9994	<i>Volutopsius stefanssoni</i>
158	30060	0.0052	<0.0001	0.0000	<0.0001	0.9995	<i>Sebastes alutus</i>
159	75205	0.0048	<0.0001	0.0022	<0.0001	0.9995	<i>Tellina lutea</i>

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
160	81060	0.0045	<0.0001	0.0000	<0.0001	0.9995	<i>Solaster</i> sp.
161	98000	0.0044	<0.0001	0.0000	<0.0001	0.9995	Ascidian unident.
162	71710	0.0044	<0.0001	0.0007	<0.0001	0.9995	<i>Colus</i> sp.
163	480	0.0043	<0.0001	0.0000	<0.0001	0.9995	<i>Bathyraja maculata</i>
164	80540	0.0041	<0.0001	0.0000	<0.0001	0.9996	<i>Henricia</i> sp.
165	71774	0.0040	<0.0001	0.0000	<0.0001	0.9996	<i>Beringius stimpsoni</i>
166	81360	0.0038	<0.0001	0.0003	<0.0001	0.9996	<i>Diploteraster multipes</i>
167	74060	0.0035	<0.0001	0.0002	<0.0001	0.9996	<i>Modiolus modiolus</i>
168	20061	0.0034	<0.0001	0.0014	<0.0001	0.9996	<i>Ocella dodecaedron</i>
169	21354	0.0033	<0.0001	0.0000	<0.0001	0.9996	<i>Triglops scepiticus</i>
170	21356	0.0032	<0.0001	0.0000	<0.0001	0.9996	<i>Triglops macellus</i>
171	72757	0.0031	<0.0001	0.0006	<0.0001	0.9996	<i>Buccinum ciliatum</i>
172	71025	0.0029	<0.0001	0.0003	<0.0001	0.9997	<i>Tritonia</i> sp.
173	440	0.0029	<0.0001	0.0000	<0.0001	0.9997	<i>Raja rhina</i>
174	66020	0.0029	<0.0001	0.0000	<0.0001	0.9997	<i>Pandalus</i> sp.
175	21735	0.0027	<0.0001	0.0008	<0.0001	0.9997	<i>Eleginus gracilis</i>
176	66502	0.0026	<0.0001	0.0014	<0.0001	0.9997	<i>Crangon</i> sp.
177	69110	0.0026	<0.0001	0.0000	<0.0001	0.9997	<i>Elassochirus tenuimanus</i>
178	21932	0.0026	<0.0001	0.0002	<0.0001	0.9997	<i>Hexagrammos stelleri</i>
179	71500	0.0026	<0.0001	0.0000	<0.0001	0.9997	Gastropod unident.
180	68020	0.0026	<0.0001	0.0000	<0.0001	0.9997	<i>Cancer magister</i>
181	71259	0.0024	<0.0001	0.0000	<0.0001	0.9997	<i>Archidorus</i> sp.
182	78012	0.0024	<0.0001	0.0000	<0.0001	0.9997	<i>Benthoctopus leioderma</i>
183	401	0.0024	<0.0001	0.0000	<0.0001	0.9998	skate egg case unident.
184	455	0.0022	<0.0001	0.0000	<0.0001	0.9998	<i>Bathyraja taranetzi</i>
185	43100	0.0022	<0.0001	0.0005	<0.0001	0.9998	Actinostolidae
186	71681	0.0021	<0.0001	0.0000	<0.0001	0.9998	<i>Crepidula grandis</i>
187	71755	0.0020	<0.0001	0.0000	<0.0001	0.9998	<i>Pyrulofusus harpa</i>
188	56312	0.0020	<0.0001	0.0009	<0.0001	0.9998	<i>Eunoe depressa</i>
189	75284	0.0019	<0.0001	0.0005	<0.0001	0.9998	<i>Serripes</i> sp.
190	23235	0.0019	<0.0001	0.0000	<0.0001	0.9998	<i>Oncorhynchus keta</i>
191	21921	0.0018	<0.0001	0.0000	<0.0001	0.9998	<i>Pleurogrammus monopterygius</i>

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
192	72747	0.0017	<0.0001	0.0033	<0.0001	0.9998	<i>Buccinum oedematum</i>
193	71890	0.0016	<0.0001	0.0039	<0.0001	0.9998	<i>Plicifusus</i> sp.
194	30052	0.0016	<0.0001	0.0047	<0.0001	0.9998	<i>Sebastes melanostictus</i>
195	72790	0.0016	<0.0001	0.0043	<0.0001	0.9998	<i>Arctomelon stearnsii</i>
196	10212	0.0015	<0.0001	0.0026	<0.0001	0.9998	<i>Limanda sakhalinensis</i>
197	95070	0.0015	<0.0001	0.0034	<0.0001	0.9998	<i>Rhamphostomella costata</i>
198	71537	0.0015	<0.0001	0.0026	<0.0001	0.9999	<i>Cryptonatica (=Natica)</i>
199	24189	0.0014	<0.0001	0.0029	<0.0001	0.9999	<i>Lycodes turneri</i>
200	85171	0.0013	<0.0001	0.0037	<0.0001	0.9999	<i>Pentamera</i> sp.
201	71721	0.0013	<0.0001	0.0030	<0.0001	0.9999	<i>Coltus herendeenii</i>
202	91040	0.0012	<0.0001	0.0036	<0.0001	0.9999	<i>Mycale loveni</i>
203	50001	0.0012	<0.0001	0.0028	<0.0001	0.9999	worm unident.
204	41221	0.0011	<0.0001	0.0027	<0.0001	0.9999	<i>Gersemia rubiformis</i>
205	75021	0.0011	<0.0001	0.0021	<0.0001	0.9999	<i>Saxidomus gigantea</i>
206	50010	0.0011	<0.0001	0.0024	<0.0001	0.9999	tube worm unident.
207	43032	0.0010	<0.0001	0.0020	<0.0001	0.9999	<i>Stomphia coccinea</i>
208	98070	0.0010	<0.0001	0.0019	<0.0001	0.9999	<i>Thalassia</i> unident.
209	74983	0.0009	<0.0001	0.0015	<0.0001	0.9999	<i>Clinocardium ciliatum</i>
210	74985	0.0009	<0.0001	0.0027	<0.0001	0.9999	<i>Clinocardium californiense</i>
211	68040	0.0009	<0.0001	0.0015	<0.0001	0.9999	<i>Cancer oregonensis</i>
212	82530	0.0009	<0.0001	0.0019	<0.0001	0.9999	<i>Allocentrotus fragilis</i>
213	57411	0.0008	<0.0001	0.0021	<0.0001	0.9999	<i>Serpula columbiana</i>
214	43040	0.0008	<0.0001	0.0025	<0.0001	0.9999	<i>Urticina</i> sp.
215	50192	0.0007	<0.0001	0.0016	<0.0001	0.9999	<i>Aphrodita negligens</i>
216	43082	0.0007	<0.0001	0.0016	<0.0001	0.9999	<i>Cribrinopsis fernaldi</i>
217	40011	0.0007	<0.0001	0.0014	<0.0001	0.9999	<i>hydroid</i> unident.
218	56300	0.0007	<0.0001	0.0015	<0.0001	0.9999	Polynoidae
219	21352	0.0007	<0.0001	0.0018	<0.0001	0.9999	<i>Triglops forficata</i>
220	66580	0.0007	<0.0001	0.0011	<0.0001	0.9999	<i>Argis dentata</i>
221	80660	0.0007	<0.0001	0.0012	<0.0001	0.9999	<i>Pseudarchaster parelii</i>
222	474	0.0006	<0.0001	0.0010	<0.0001	0.9999	<i>Bathyraja parvifera</i>
223	75600	0.0006	<0.0001	0.0015	<0.0001	0.9999	<i>Pododesmus macrochisma</i>

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
224	40505	0.0006	<0.0001	0.0000	<0.0001	0.9999	<i>Phacellophora camtschatica</i>
225	23805	0.0006	<0.0001	0.0003	<0.0001	0.9999	<i>Lumpenus maculatus</i>
226	75267	0.0006	<0.0001	0.0001	<0.0001	0.9999	<i>Siliqua alta</i>
227	21441	0.0005	<0.0001	0.0003	<0.0001	0.9999	<i>Icelus spatula</i>
228	81310	0.0005	<0.0001	0.0000	<0.0001	0.9999	<i>Pteraster</i> sp.
229	20510	0.0005	<0.0001	0.0000	<0.0001	0.9999	<i>Anoplopoma fimbria</i>
230	71810	0.0005	<0.0001	0.0000	<0.0001	0.9999	<i>Neptunea amianta</i>
231	78452	0.0005	<0.0001	0.0000	<0.0001	0.9999	<i>Benthocopus</i> sp.
232	91030	0.0004	<0.0001	0.0000	<0.0001	0.9999	<i>Aphrocallistes vastus</i>
233	71018	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Dendronotus</i> sp.
234	71580	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Euspira (=Polinices)</i>
235	66530	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Crangon dalli</i>
236	21380	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Leptocottus armatus</i>
237	71771	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Beringius frielei</i>
238	1	0.0004	<0.0001	0.0000	<0.0001	1.0000	fish eggs unident.
239	74980	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Clinocardium</i> sp.
240	91064	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Plicatellopsis amphispicula</i>
241	85169	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Pentamera lissoplaca</i>
242	95020	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Eucreatea loricata</i>
243	81829	0.0004	<0.0001	0.0000	<0.0001	1.0000	<i>Leptychaster anomalus</i>
244	20050	0.0003	<0.0001	0.0000	<0.0001	1.0000	<i>Aspidophorooides bartoni</i>
245	81064	0.0003	<0.0001	0.0000	<0.0001	1.0000	<i>Solaster dawsoni</i>
246	81061	0.0003	<0.0001	0.0000	<0.0001	1.0000	<i>Solaster endeca</i>
247	66515	0.0003	<0.0001	0.0000	<0.0001	1.0000	<i>Crangon communis</i>
248	75241	0.0003	<0.0001	0.0000	<0.0001	1.0000	<i>Macoma nasuta</i>
249	74311	0.0003	<0.0001	0.0000	<0.0001	1.0000	<i>Hiatella arctica</i>
250	72403	0.0003	<0.0001	0.0000	<0.0001	1.0000	<i>Boreotrophon coronatus</i>
251	71787	0.0003	<0.0001	0.0000	<0.0001	1.0000	<i>Beringius rotundus</i>
252	99998	0.0002	<0.0001	0.0000	<0.0001	1.0000	Polychaete tubes
253	66570	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Argis</i> sp.
254	80710	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Mediaster aequalis</i>
255	50000	0.0002	<0.0001	0.0000	<0.0001	1.0000	Polychaeta

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
256	42012	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Halipteris willemoesi</i>
257	71792	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Beringius</i> sp.
258	66203	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Lebbeus groenlandicus</i>
259	22206	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Crystallichthys cyclospilus</i>
260	23055	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Osmerus mordax</i>
261	71722	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Colus hypolispus</i>
262	22201	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Liparis</i> sp.
263	21311	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Icelinus borealis</i>
264	80595	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Leptasterias</i> sp.
265	80110	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Leptasterias groenlandica</i>
266	20202	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Ammodytes hexapterus</i>
267	91015	0.0002	<0.0001	0.0000	<0.0001	1.0000	<i>Suberites</i> sp.
268	74656	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Cyclocardia</i> sp.
269	79020	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Rossia pacifica</i>
270	72305	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Trichotropis bicarinata</i>
271	44029	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Stylasterina</i> unident.
272	71759	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Volutopsius filosus</i>
273	436	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Bathyraja interrupta</i>
274	80546	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Henricia tumida</i>
275	54010	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Nereis</i> sp.
276	74420	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Yoldia hyperborea</i>
277	71020	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Dendronotus dalli</i>
278	20002	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Percis japonicus</i>
279	75240	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Macoma</i> sp.
280	74640	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Astarte</i> sp.
281	75242	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Macoma calcaria</i>
282	75266	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Siliqua patula</i>
283	21329	0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Gymnancanthus detrisus</i>
284	91053	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Rhabdocalypus</i> sp.
285	94000	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Sipuncula</i>
286	65206	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Balanus nubilus</i>
287	66030	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Pandalus jordani</i>

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
288	83400	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Ophiopholis aculeata</i>
289	66200	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Lebbeus</i> sp.
290	71917	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Neptunea</i> sp.
291	21333	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Arteidiellus pacificus</i>
292	75030	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Protothaca staminea</i>
293	85000	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Holothuroidea</i> unident.
294	66613	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Argis levior</i>
295	80729	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Ceramaster japonicus</i>
296	72531	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Margarites</i> sp.
297	80230	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Pedicellaster magister</i>
298	92500	<0.0001	<0.0001	0.0000	<0.0001	1.0000	Nemertea
299	85120	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Molpadia intermedia</i>
300	72402	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Boreotrophon alaskanus</i>
301	70115	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Amicula vestita</i>
302	23808	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Lumpeus sagitta</i>
303	69316	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Hapalogaster grebnitzkii</i>
304	83360	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Ophiopholis</i> sp.
305	71640	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Crepidula</i> sp.
306	66548	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Crangon septemspinosa</i>
307	20001	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Pallasina barbata</i>
308	81320	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Pteraster militaris</i>
309	83070	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Asteronyx loveni</i>
310	72795	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Volutomitra alaskana</i>
311	59100	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Hirudinea</i> unident.
312	74982	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Clinocardium nuttallii</i>
313	74436	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Nuculana pernula</i>
314	71716	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Colus martensi</i>
315	69087	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Pagurus beringanus</i>
316	66160	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Spirontocaris</i> sp.
317	21341	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Malacocottus zonurus</i>
318	98213	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Distaplia smithi</i>
319	40028	<0.0001	<0.0001	0.0000	<0.0001	1.0000	<i>Aglaophenia</i> sp.

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
320	81090	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Crossaster</i> sp.
321	23850	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Poroclinus rothrocki</i>
322	71594	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Lamellaria</i> sp.
323	82730	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	sand dollar unident.
324	59111	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	Notostombdella (=Carcinobdella)
325	72786	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Buccinum rondinum</i>
326	44094	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Amphilaphis</i> sp.
327	66179	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Eualus macilentus</i>
328	82526	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Strongylocentrotus pallidus</i>
329	66611	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Argis</i> lar
330	66033	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Pandalus tridens</i>
331	71584	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Lamellaria</i> sp.
332	95105	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Dendrobeatia</i> sp.
333	66032	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Heptacarpus maxillipes</i>
334	83000	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	Ophiuroid unident.
335	69328	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Cryptolithodes typica</i>
336	22219	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Careproctus</i> sp.
337	66600	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Sclerocrangon</i> sp.
338	40511	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Aurelia</i> sp.
339	23807	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Lumpeus fabricii</i>
340	69312	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Dermaturus mandtii</i>
341	95017	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Bugula californica</i>
342	20005	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Leptagonus leptorhynchus</i>
343	97000	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	brachiopod unident.
344	71634	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Tachyrhynchus erosus</i>
345	72420	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Boreotrophon</i> sp.
346	62000	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	Isopoda
347	66175	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Eualus gainardii</i>
348	80551	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Odontohenricia</i> sp.
349	22183	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Eumicrotremus</i> sp.
350	57412	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Serpula</i> sp.
351	40034	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Abietinaria</i> sp.

Appendix C Table 1. -- Continued.

Rank	Species code	Mean CPUE (kg/ha)	Standard error	95% Confidence limits	Proportion	Cumulative proportion	Scientific name
352	66171	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Eualus barbatus</i>
353	21320	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Radulinus asprellus</i>
354	62025	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Rocinella angusta</i>
355	75330	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Mya</i> sp.
356	23801	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Lumpenus</i> sp.
357	60100	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	Amphipoda
358	93100	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	Priapula
359	43111	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Actinistola</i> sp.
360	20035	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Bathyagonus alascanus</i>
361	23800	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	Stichaeidae
362	66302	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Heptacarpus flexus</i>
363	78020	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Octopus</i> sp.
364	20036	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Bathyagonus infraspiniatus</i>
365	66301	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Heptacarpus</i> sp.
366	40012	<0.0001	<0.0001	<0.0001	<0.0001	1.0000	<i>Bonneviella</i> sp.

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Appendix D: Population Estimates by Sex and Size Groups for Principal Fish Species

Appendix D presents estimates of the numbers of individuals within the overall survey area by sex and size group for principal fish species.

List of Tables

Population estimates by sex and size group from the 2008 eastern Bering Sea bottom trawl survey.

Appendix D Table 1 – walleye pollock

Appendix D Table 2 – Pacific cod

Appendix D Table 3 – yellowfin sole

Appendix D Table 4 – northern and southern rock sole grouped

Appendix D Table 5 – flathead sole and Bering flounder grouped

Appendix D Table 6 – Alaska plaice

Appendix D Table 7 – Greenland turbot

Appendix D Table 8 – arrowtooth flounder

Appendix D Table 9 – Kamchatka flounder

Appendix D Table 10 – Pacific halibut

Appendix D Table 1. -- Population estimates by sex and size for **walleye pollock** (*Theragra chalcogramma*) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
70	0	0	149,832	149,832	0.0000	0.0000
80	0	0	3,166,545	3,166,545	0.0008	0.0008
90	0	0	12,537,302	12,537,302	0.0032	0.0040
100	0	0	31,308,408	31,308,408	0.0079	0.0119
110	0	56,521	51,000,381	51,056,901	0.0129	0.0248
120	0	0	74,691,314	74,691,314	0.0188	0.0436
130	0	0	92,718,999	92,718,999	0.0234	0.0670
140	0	0	76,665,947	76,665,947	0.0193	0.0863
150	2,412,938	1,769,666	48,021,349	52,203,953	0.0132	0.0995
160	3,552,811	3,082,302	14,325,695	20,960,808	0.0053	0.1047
170	6,445,277	5,338,481	2,442,262	14,226,020	0.0036	0.1083
180	7,939,275	7,001,563	6,558,298	21,499,137	0.0054	0.1138
190	12,445,293	9,363,698	3,662,990	25,471,981	0.0064	0.1202
200	9,829,914	13,086,241	4,558,054	27,474,208	0.0069	0.1271
210	8,582,023	6,126,473	0	14,708,497	0.0037	0.1308
220	4,626,329	5,909,275	956,411	11,492,015	0.0029	0.1337
230	1,275,043	1,552,320	30,168	2,857,531	0.0007	0.1344
240	3,425,618	1,953,238	0	5,378,855	0.0014	0.1358
250	1,122,886	2,285,708	0	3,408,595	0.0009	0.1366
260	1,609,180	1,106,018	0	2,715,198	0.0007	0.1373
270	1,610,596	1,674,956	0	3,285,552	0.0008	0.1382
280	2,515,911	1,947,837	0	4,463,748	0.0011	0.1393
290	2,233,645	3,079,448	0	5,313,093	0.0013	0.1406
300	2,732,735	3,519,086	31,986	6,283,807	0.0016	0.1422
310	4,692,327	1,789,098	0	6,481,425	0.0016	0.1438
320	3,361,414	2,143,681	0	5,505,094	0.0014	0.1452
330	2,427,924	2,125,757	32,201	4,585,882	0.0012	0.1464
340	2,469,547	3,032,433	0	5,501,980	0.0014	0.1478
350	4,609,073	2,185,647	0	6,794,721	0.0017	0.1495
360	7,938,955	5,920,167	0	13,859,122	0.0035	0.1530
370	6,696,751	3,340,555	0	10,037,305	0.0025	0.1555
380	14,939,916	11,289,298	0	26,229,214	0.0066	0.1621
390	20,125,847	12,836,203	0	32,962,050	0.0083	0.1704
400	35,608,701	25,068,087	0	60,676,787	0.0153	0.1857
410	48,425,629	25,838,963	0	74,264,592	0.0187	0.2045
420	64,616,979	48,699,737	0	113,316,716	0.0286	0.2330
430	71,500,848	39,061,932	0	110,562,780	0.0279	0.2609
440	115,579,983	89,016,299	0	204,596,282	0.0516	0.3125
450	124,902,954	62,705,483	0	187,608,437	0.0473	0.3598
460	163,830,111	115,049,113	0	278,879,224	0.0703	0.4301
470	140,057,162	90,072,742	0	230,129,904	0.0580	0.4881
480	148,147,876	133,398,099	0	281,545,975	0.0710	0.5591
490	123,195,099	93,644,821	0	216,839,919	0.0547	0.6138
500	106,288,657	124,845,917	0	231,134,574	0.0583	0.6721
510	81,363,397	96,942,962	0	178,306,359	0.0450	0.7170
520	88,094,423	96,234,172	0	184,328,596	0.0465	0.7635

Appendix D Table 1. -- Continued.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
530	61,446,526	83,551,922	0	144,998,449	0.0366	0.8000
540	50,009,575	78,472,079	0	128,481,654	0.0324	0.8324
550	48,011,164	65,587,441	0	113,598,605	0.0286	0.8611
560	42,088,327	57,404,713	0	99,493,040	0.0251	0.8862
570	29,694,899	46,204,710	0	75,899,609	0.0191	0.9053
580	27,816,609	40,683,947	0	68,500,556	0.0173	0.9226
590	24,487,733	40,576,239	0	65,063,972	0.0164	0.9390
600	15,751,926	31,585,172	0	47,337,097	0.0119	0.9509
610	11,067,596	21,670,490	0	32,738,086	0.0083	0.9592
620	9,636,005	22,344,611	0	31,980,616	0.0081	0.9672
630	6,587,105	17,196,161	0	23,783,267	0.0060	0.9732
640	6,919,549	15,012,121	0	21,931,670	0.0055	0.9787
650	3,602,283	8,172,156	0	11,774,439	0.0030	0.9817
660	3,813,546	9,655,470	0	13,469,016	0.0034	0.9851
670	1,975,853	7,821,605	0	9,797,458	0.0025	0.9876
680	2,637,752	8,413,711	0	11,051,463	0.0028	0.9904
690	1,196,788	5,138,638	0	6,335,426	0.0016	0.9920
700	1,543,091	5,720,672	0	7,263,763	0.0018	0.9938
710	1,192,428	4,505,796	0	5,698,224	0.0014	0.9952
720	1,012,331	3,611,839	0	4,624,170	0.0012	0.9964
730	581,869	3,286,798	0	3,868,667	0.0010	0.9974
740	492,032	2,745,043	0	3,237,076	0.0008	0.9982
750	189,164	1,797,525	0	1,986,688	0.0005	0.9987
760	299,199	1,472,353	0	1,771,552	0.0004	0.9991
770	49,681	851,872	0	901,552	0.0002	0.9994
780	63,746	946,590	0	1,010,337	0.0003	0.9996
790	0	339,859	0	339,859	0.0001	0.9997
800	0	487,816	0	487,816	0.0001	0.9998
810	0	91,797	0	91,797	0.0000	0.9999
820	0	300,294	0	300,294	0.0001	0.9999
830	0	122,877	0	122,877	0.0000	1.0000
850	0	63,542	0	63,542	0.0000	1.0000
900	0	47,864	0	47,864	0.0000	1.0000
910	0	46,909	0	46,909	0.0000	1.0000
Total	1,803,399,825	1,740,024,629	422,858,141	3,966,282,594	1.0000	1.0000

Appendix D Table 2. -- Population estimates by sex and size for **Pacific cod** (*Gadus macrocephalus*) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
60	27,199	0	0	27,199	0.0001	0.0001
90	0	0	204,895	204,895	0.0004	0.0005
100	505,305	412,682	1,079,230	1,997,217	0.0040	0.0045
110	1,397,478	980,023	3,811,398	6,188,900	0.0125	0.0171
120	2,322,448	3,025,816	7,499,922	12,848,185	0.0260	0.0431
130	2,588,143	2,636,757	8,696,868	13,921,768	0.0282	0.0713
140	4,734,977	3,139,236	6,443,440	14,317,653	0.0290	0.1003
150	4,154,827	4,266,722	4,478,635	12,900,185	0.0261	0.1265
160	5,808,629	4,699,476	975,244	11,483,349	0.0233	0.1497
170	4,452,845	3,708,471	179,732	8,341,048	0.0169	0.1666
180	2,656,363	2,847,502	30,493	5,534,358	0.0112	0.1779
190	1,478,272	1,304,043	0	2,782,314	0.0056	0.1835
200	1,041,220	428,844	0	1,470,064	0.0030	0.1865
210	359,809	410,063	0	769,872	0.0016	0.1880
220	789,560	701,425	0	1,490,984	0.0030	0.1911
230	1,302,088	1,506,625	0	2,808,713	0.0057	0.1968
240	2,967,693	3,219,605	0	6,187,297	0.0125	0.2093
250	6,100,385	5,408,736	0	11,509,121	0.0233	0.2326
260	7,859,685	10,055,309	0	17,914,994	0.0363	0.2689
270	10,212,193	10,282,596	0	20,494,789	0.0415	0.3105
280	13,958,701	12,617,600	0	26,576,301	0.0539	0.3643
290	14,683,126	13,441,995	0	28,125,121	0.0570	0.4213
300	14,724,947	12,684,817	0	27,409,764	0.0555	0.4769
310	13,596,915	12,116,598	0	25,713,513	0.0521	0.5290
320	11,268,065	9,872,754	0	21,140,819	0.0428	0.5718
330	9,798,537	7,962,219	0	17,760,755	0.0360	0.6078
340	6,121,812	6,849,896	0	12,971,708	0.0263	0.6341
350	5,016,018	5,729,398	0	10,745,416	0.0218	0.6559
360	3,672,585	3,773,290	0	7,445,874	0.0151	0.6710
370	3,106,868	3,236,510	0	6,343,378	0.0129	0.6838
380	3,007,171	2,835,981	0	5,843,153	0.0118	0.6957
390	2,590,738	2,613,726	0	5,204,465	0.0105	0.7062
400	2,236,799	2,721,513	0	4,958,312	0.0100	0.7163
410	2,060,041	2,490,746	0	4,550,786	0.0092	0.7255
420	2,811,414	2,712,310	0	5,523,724	0.0112	0.7367
430	2,581,266	2,398,192	0	4,979,458	0.0101	0.7468
440	3,061,008	2,357,460	0	5,418,468	0.0110	0.7577
450	2,767,273	2,406,004	0	5,173,277	0.0105	0.7682
460	2,898,591	2,356,434	0	5,255,025	0.0106	0.7789
470	1,840,241	2,479,117	0	4,319,358	0.0088	0.7876
480	2,830,275	2,302,072	0	5,132,347	0.0104	0.7980
490	2,454,723	2,211,637	0	4,666,360	0.0095	0.8075
500	2,501,476	2,257,319	0	4,758,795	0.0096	0.8171
510	2,420,754	2,395,949	0	4,816,703	0.0098	0.8269
520	2,734,331	2,780,451	18,700	5,533,483	0.0112	0.8381

Appendix D Table 2. -- Continued.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
530	2,169,402	2,214,405	0	4,383,807	0.0089	0.8470
540	2,188,500	2,039,597	0	4,228,096	0.0086	0.8556
550	2,012,751	1,775,023	0	3,787,774	0.0077	0.8632
560	2,456,051	1,885,688	0	4,341,738	0.0088	0.8720
570	2,160,888	1,161,975	0	3,322,863	0.0067	0.8788
580	2,166,072	2,419,794	0	4,585,866	0.0093	0.8881
590	2,281,906	1,555,971	0	3,837,878	0.0078	0.8958
600	2,456,706	1,984,856	0	4,441,562	0.0090	0.9048
610	1,791,881	1,609,743	0	3,401,624	0.0069	0.9117
620	1,550,150	1,720,595	0	3,270,745	0.0066	0.9184
630	1,655,100	1,397,809	0	3,052,908	0.0062	0.9246
640	1,976,517	1,951,501	0	3,928,018	0.0080	0.9325
650	1,205,404	1,155,970	0	2,361,373	0.0048	0.9373
660	1,551,193	1,431,729	0	2,982,923	0.0060	0.9433
670	795,822	1,653,931	0	2,449,753	0.0050	0.9483
680	1,257,679	1,937,401	18,700	3,213,780	0.0065	0.9548
690	1,108,303	661,618	0	1,769,921	0.0036	0.9584
700	1,016,542	1,140,715	0	2,157,257	0.0044	0.9628
710	493,828	776,519	0	1,270,347	0.0026	0.9654
720	931,028	848,628	0	1,779,656	0.0036	0.9690
730	289,416	629,556	0	918,972	0.0019	0.9708
740	1,018,125	683,854	0	1,701,979	0.0034	0.9743
750	337,269	380,917	0	718,186	0.0015	0.9757
760	425,214	608,439	0	1,033,652	0.0021	0.9778
770	403,477	499,836	0	903,313	0.0018	0.9797
780	425,345	524,014	0	949,359	0.0019	0.9816
790	106,063	360,080	0	466,143	0.0009	0.9825
800	322,764	291,569	0	614,332	0.0012	0.9838
810	219,682	236,159	0	455,841	0.0009	0.9847
820	250,484	440,476	0	690,960	0.0014	0.9861
830	261,955	271,967	0	533,922	0.0011	0.9872
840	337,888	137,888	0	475,776	0.0010	0.9881
850	211,959	121,348	0	333,307	0.0007	0.9888
860	521,767	198,640	0	720,408	0.0015	0.9903
870	309,226	106,498	0	415,723	0.0008	0.9911
880	164,414	210,673	0	375,087	0.0008	0.9919
890	242,651	58,348	0	301,000	0.0006	0.9925
900	332,231	243,991	0	576,222	0.0012	0.9937
910	0	187,941	0	187,941	0.0004	0.9940
920	86,693	278,504	0	365,196	0.0007	0.9948
930	119,472	261,553	0	381,025	0.0008	0.9956
940	178,939	186,317	0	365,256	0.0007	0.9963
950	110,486	216,083	0	326,569	0.0007	0.9970
960	69,446	47,534	0	116,980	0.0002	0.9972
970	158,302	153,306	0	311,608	0.0006	0.9978
980	104,116	211,803	0	315,919	0.0006	0.9985
990	0	89,005	0	89,005	0.0002	0.9986
1000	47,542	109,871	0	157,413	0.0003	0.9990
1010	0	116,495	0	116,495	0.0002	0.9992
1020	28,916	228,242	0	257,158	0.0005	0.9997
1030	0	44,552	0	44,552	0.0001	0.9998
1040	0	47,748	0	47,748	0.0001	0.9999
1070	0	17,539	0	17,539	0.0000	0.9999
1100	0	29,415	0	29,415	0.0001	1.0000
Total	235,812,353	224,191,550	33,437,259	493,441,162	1.0000	1.0000

Appendix D Table 3. -- Population estimates by sex and size for **yellowfin sole** (*Limanda aspera*) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
70	0	570,934	0	570,934	0.0001	0.0001
80	0	1,138,795	0	1,138,795	0.0001	0.0002
90	3,416,386	1,666,739	662,745	5,745,870	0.0006	0.0008
100	2,600,138	2,488,950	1,529,552	6,618,640	0.0007	0.0016
110	7,719,222	11,907,879	433,403	20,060,504	0.0023	0.0038
120	19,651,508	22,445,931	0	42,097,439	0.0047	0.0086
130	61,676,467	61,309,743	0	122,986,209	0.0138	0.0224
140	112,133,940	115,681,958	0	227,815,899	0.0256	0.0481
150	110,902,517	150,787,523	0	261,690,039	0.0295	0.0775
160	139,253,514	140,308,348	0	279,561,861	0.0315	0.1090
170	150,934,535	166,119,183	433,403	317,487,121	0.0357	0.1447
180	201,489,022	184,926,001	0	386,415,024	0.0435	0.1882
190	182,099,762	184,446,608	0	366,546,370	0.0413	0.2295
200	172,799,792	177,218,166	0	350,017,958	0.0394	0.2689
210	174,534,109	164,992,113	0	339,526,222	0.0382	0.3071
220	177,931,735	179,881,809	0	357,813,544	0.0403	0.3473
230	183,539,971	172,102,402	0	355,642,373	0.0400	0.3874
240	189,199,403	201,689,958	0	390,889,361	0.0440	0.4314
250	168,738,655	187,743,338	0	356,481,993	0.0401	0.4715
260	200,747,130	208,714,852	0	409,461,982	0.0461	0.5176
270	195,862,431	179,453,165	0	375,315,595	0.0422	0.5598
280	254,479,493	201,284,157	0	455,763,651	0.0513	0.6111
290	243,519,691	220,925,166	0	464,444,857	0.0523	0.6634
300	269,560,736	206,301,035	0	475,861,771	0.0536	0.7170
310	267,054,678	228,514,379	0	495,569,057	0.0558	0.7727
320	219,380,583	216,188,435	0	435,569,018	0.0490	0.8218
330	203,175,848	238,828,026	0	442,003,874	0.0497	0.8715
340	135,549,979	236,604,966	0	372,154,945	0.0419	0.9134
350	52,506,349	224,545,571	0	277,051,920	0.0312	0.9446
360	32,925,694	177,790,795	0	210,716,489	0.0237	0.9683
370	9,918,143	124,505,691	0	134,423,834	0.0151	0.9834
380	2,266,294	74,438,645	0	76,704,939	0.0086	0.9920
390	884,024	45,535,412	0	46,419,437	0.0052	0.9973
400	0	14,638,963	0	14,638,963	0.0016	0.9989
410	0	3,027,717	0	3,027,717	0.0003	0.9993
420	88,930	4,770,703	0	4,859,633	0.0005	0.9998
430	0	556,911	0	556,911	0.0001	0.9999
440	0	960,684	0	960,684	0.0001	1.0000
450	0	0	0	0	0.0000	1.0000
460	0	123,208	0	123,208	0.0000	1.0000
470	58,750	0	0	58,750	0.0000	1.0000
Total	4,146,599,431	4,735,134,858	3,059,104	8,884,793,393	1.0000	1.0000

Appendix D Table 4. -- Population estimates by sex and size for **northern** and **southern rock sole** (*Lepidopsetta* spp.) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
70	0	0	31,922	31,922	0.0000	0.0000
80	718,486	405,001	207,262	1,330,748	0.0001	0.0001
90	2,708,696	999,679	4,862,764	8,571,139	0.0008	0.0009
100	12,307,043	11,595,335	31,509,269	55,411,647	0.0053	0.0062
110	63,376,289	60,088,124	102,396,468	225,860,881	0.0214	0.0276
120	151,499,635	138,678,140	114,092,946	404,270,721	0.0384	0.0660
130	234,550,367	167,454,382	75,062,627	477,067,376	0.0453	0.1112
140	240,559,383	217,760,340	31,324,917	489,644,640	0.0465	0.1577
150	248,419,210	232,432,534	11,850,376	492,702,120	0.0467	0.2044
160	242,964,196	202,592,881	3,766,089	449,323,166	0.0426	0.2471
170	238,909,278	198,583,088	959,481	438,451,848	0.0416	0.2887
180	221,916,359	182,101,761	29,934	404,048,054	0.0383	0.3270
190	220,851,471	170,475,704	415,816	391,742,990	0.0372	0.3641
200	216,561,212	211,684,295	0	428,245,507	0.0406	0.4048
210	228,167,897	215,505,911	0	443,673,808	0.0421	0.4469
220	263,076,864	221,141,228	0	484,218,093	0.0459	0.4928
230	220,393,534	186,554,886	0	406,948,420	0.0386	0.5314
240	221,849,430	207,128,474	0	428,977,904	0.0407	0.5721
250	206,427,147	177,178,291	0	383,605,437	0.0364	0.6085
260	233,111,810	173,178,553	0	406,290,363	0.0385	0.6470
270	232,314,970	159,840,970	0	392,155,940	0.0372	0.6842
280	299,272,877	141,280,997	0	440,553,874	0.0418	0.7260
290	296,080,441	134,336,601	0	430,417,042	0.0408	0.7669
300	279,743,626	113,686,107	0	393,429,733	0.0373	0.8042
310	162,810,587	121,826,483	0	284,637,070	0.0270	0.8312
320	112,988,903	117,517,205	0	230,506,108	0.0219	0.8531
330	55,613,229	121,206,793	0	176,820,022	0.0168	0.8698
340	31,542,227	194,440,560	0	225,982,787	0.0214	0.8913
350	9,324,420	236,934,241	0	246,258,661	0.0234	0.9146
360	5,364,477	243,039,392	0	248,403,869	0.0236	0.9382
370	3,693,738	247,236,824	0	250,930,562	0.0238	0.9620
380	4,987,588	177,985,862	0	182,973,451	0.0174	0.9794
390	346,673	114,858,601	0	115,205,275	0.0109	0.9903
400	0	47,031,836	0	47,031,836	0.0045	0.9948
410	106,288	30,261,393	0	30,367,681	0.0029	0.9976
420	0	5,941,541	0	5,941,541	0.0006	0.9982
430	0	9,398,963	0	9,398,963	0.0009	0.9991
440	616,126	5,665,320	0	6,281,446	0.0006	0.9997
450	0	3,067,554	0	3,067,554	0.0003	1.0000
460	0	61,679	0	61,679	0.0000	1.0000
490	0	29,934	0	29,934	0.0000	1.0000
Total	4,963,174,478	5,201,187,461	376,509,872	10,540,871,811	1.0000	1.0000

Appendix D Table 5. -- Population estimates by sex and size for **flathead sole** and **Bering flounder** (*Hippoglossoides* spp.) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
50	0	48,705	170,593	219,298	0.0001	0.0001
60	31,256	61,182	181,552	273,990	0.0001	0.0003
70	94,124	94,124	301,344	489,591	0.0003	0.0005
80	70,306	34,652	829,393	934,351	0.0005	0.0010
90	1,084,404	261,476	1,476,872	2,822,752	0.0015	0.0025
100	2,201,424	1,093,374	2,260,520	5,555,319	0.0030	0.0055
110	2,797,399	2,293,876	4,787,838	9,879,113	0.0053	0.0108
120	5,864,536	3,703,914	3,024,639	12,593,090	0.0068	0.0176
130	7,171,252	4,278,819	1,494,726	12,944,798	0.0070	0.0246
140	8,038,058	4,350,121	575,553	12,963,732	0.0070	0.0316
150	8,708,178	5,040,060	137,041	13,885,279	0.0075	0.0390
160	8,860,520	7,564,965	51,310	16,476,795	0.0089	0.0479
170	13,764,380	9,285,419	0	23,049,799	0.0124	0.0603
180	11,463,685	14,170,466	0	25,634,151	0.0138	0.0741
190	10,908,040	9,951,891	0	20,859,931	0.0112	0.0853
200	10,895,490	17,371,751	102,621	28,369,862	0.0153	0.1005
210	22,436,220	19,302,897	0	41,739,117	0.0224	0.1230
220	20,872,771	27,154,837	102,621	48,130,228	0.0259	0.1489
230	33,092,054	30,036,304	180,453	63,308,811	0.0340	0.1829
240	36,962,361	37,632,972	256,552	74,851,885	0.0402	0.2231
250	45,952,772	33,779,198	410,483	80,142,453	0.0431	0.2662
260	43,527,233	39,877,691	769,655	84,174,580	0.0453	0.3115
270	48,688,683	38,919,834	488,315	88,096,832	0.0474	0.3589
280	41,805,971	44,547,593	102,621	86,456,185	0.0465	0.4054
290	53,822,349	35,320,822	489,603	89,632,774	0.0482	0.4536
300	55,063,015	44,658,484	307,862	100,029,362	0.0538	0.5073
310	66,916,201	48,547,617	410,483	115,874,301	0.0623	0.5696
320	72,749,729	48,207,851	461,793	121,419,373	0.0653	0.6349
330	72,942,004	43,963,554	256,552	117,162,110	0.0630	0.6979
340	64,549,041	51,034,673	283,074	115,866,787	0.0623	0.7602
350	53,988,826	42,144,816	310,884	96,444,526	0.0519	0.8121
360	33,923,081	44,485,789	51,310	78,460,180	0.0422	0.8543
370	23,757,629	38,181,446	0	61,939,075	0.0333	0.8876
380	26,571,083	29,940,742	102,621	56,614,446	0.0304	0.9180
390	13,183,943	22,238,445	0	35,422,387	0.0190	0.9371
400	7,612,712	23,437,090	0	31,049,802	0.0167	0.9538
410	3,522,942	13,214,540	51,310	16,788,792	0.0090	0.9628
420	1,184,580	17,698,947	0	18,883,527	0.0102	0.9730
430	510,562	9,632,784	51,310	10,194,656	0.0055	0.9784
440	352,585	9,982,848	0	10,335,433	0.0056	0.9840
450	51,564	8,147,198	0	8,198,762	0.0044	0.9884
460	250,232	6,046,330	0	6,296,562	0.0034	0.9918
470	0	4,467,216	0	4,467,216	0.0024	0.9942
480	0	5,585,722	0	5,585,722	0.0030	0.9972
490	68,761	2,982,389	0	3,051,151	0.0016	0.9988
500	15,184	1,046,797	0	1,061,981	0.0006	0.9994
510	150,779	638,959	0	789,738	0.0004	0.9998
520	0	140,371	0	140,371	0.0001	0.9999
530	0	169,493	0	169,493	0.0001	1.0000
Total	936,477,919	902,771,044	20,481,504	1,859,730,468	1.0000	1.0000

Appendix D Table 6. -- Population estimates by sex and size for **Alaska plaice** (*Pleuronectes quadrituberculatus*) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
100	28,519	0	0	28,519	0.0000	0.0000
110	0	0	0	0	0.0000	0.0000
120	71,481	133,192	0	204,672	0.0002	0.0002
130	198,788	123,422	0	322,210	0.0003	0.0006
140	716,238	434,316	0	1,150,554	0.0012	0.0018
150	652,642	614,842	0	1,267,484	0.0013	0.0032
160	2,167,176	919,676	0	3,086,853	0.0033	0.0064
170	3,074,065	1,702,408	0	4,776,473	0.0051	0.0115
180	3,998,914	2,212,078	0	6,210,993	0.0066	0.0181
190	4,641,395	3,963,974	0	8,605,369	0.0092	0.0273
200	8,226,166	3,611,352	0	11,837,518	0.0126	0.0399
210	9,227,724	6,091,196	0	15,318,920	0.0163	0.0562
220	12,232,774	8,977,906	0	21,210,680	0.0226	0.0788
230	13,558,172	10,417,509	0	23,975,681	0.0255	0.1043
240	16,673,909	12,166,912	0	28,840,821	0.0307	0.1350
250	17,885,678	12,441,019	0	30,326,697	0.0323	0.1672
260	19,721,230	14,240,241	0	33,961,471	0.0361	0.2034
270	20,809,522	14,825,001	0	35,634,523	0.0379	0.2413
280	22,628,538	16,074,024	0	38,702,561	0.0412	0.2824
290	21,169,162	14,235,360	0	35,404,523	0.0377	0.3201
300	25,463,852	13,450,573	0	38,914,424	0.0414	0.3615
310	26,197,993	14,502,290	0	40,700,283	0.0433	0.4048
320	31,739,670	15,334,187	0	47,073,857	0.0501	0.4549
330	40,288,246	15,666,099	0	55,954,344	0.0595	0.5144
340	42,156,223	13,571,713	0	55,727,935	0.0593	0.5737
350	41,843,047	11,836,490	0	53,679,536	0.0571	0.6308
360	42,091,628	14,389,524	0	56,481,151	0.0601	0.6909
370	26,861,627	11,958,715	0	38,820,342	0.0413	0.7322
380	18,747,729	15,326,186	0	34,073,915	0.0363	0.7685
390	11,615,481	12,141,375	0	23,756,856	0.0253	0.7938
400	7,407,751	16,615,915	0	24,023,666	0.0256	0.8193
410	3,524,315	16,843,412	0	20,367,727	0.0217	0.8410
420	2,067,254	20,515,015	0	22,582,269	0.0240	0.8650
430	794,685	17,842,187	0	18,636,872	0.0198	0.8849
440	687,574	23,822,258	0	24,509,832	0.0261	0.9109
450	591,160	17,321,823	0	17,912,983	0.0191	0.9300
460	215,563	16,939,440	0	17,155,004	0.0183	0.9483
470	116,576	11,310,049	0	11,426,626	0.0122	0.9604
480	95,279	8,967,871	0	9,063,150	0.0096	0.9701
490	112,241	8,255,332	0	8,367,573	0.0089	0.9790
500	28,235	4,265,274	0	4,293,509	0.0046	0.9835
510	64,677	5,437,424	0	5,502,101	0.0059	0.9894
520	0	3,745,137	0	3,745,137	0.0040	0.9934
530	28,235	2,320,333	0	2,348,568	0.0025	0.9959
540	0	1,590,565	0	1,590,565	0.0017	0.9976
550	0	1,270,762	0	1,270,762	0.0014	0.9989
560	0	412,408	0	412,408	0.0004	0.9993

Appendix D Table 6. -- Continued

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
570	0	276,821	0	276,821	0.0003	0.9996
580	0	66,861	0	66,861	0.0001	0.9997
590	0	0	0	0	0.0000	0.9997
600	0	66,861	0	66,861	0.0001	0.9998
610	0	207,529	0	207,529	0.0002	1.0000
Total	500,421,133	439,454,856	0	939,875,989	1.0000	1.0000

Appendix D Table 7. -- Population estimates by sex and size for **Greenland turbot** (*Reinhardtius hippoglossoides*) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
60	0	0	34,492	34,492	0.0023	0.0023
90	0	0	216,501	216,501	0.0142	0.0164
100	60,511	18,694	482,095	561,300	0.0367	0.0508
110	62,614	70,424	538,925	671,963	0.0439	0.0806
120	372,619	141,053	897,646	1,411,318	0.0923	0.1362
130	534,573	209,573	450,723	1,194,869	0.0781	0.1704
140	180,068	135,628	483,428	799,124	0.0522	0.1303
150	193,903	112,046	29,403	335,353	0.0219	0.0742
160	28,118	112,123	44,124	184,365	0.0121	0.0340
170	286,912	148,894	88,248	524,054	0.0343	0.0463
180	376,553	192,620	35,238	604,411	0.0395	0.0738
190	629,237	144,597	19,299	793,133	0.0518	0.0914
200	674,395	451,493	68,984	1,194,873	0.0781	0.1300
210	387,952	84,464	0	472,415	0.0309	0.1090
220	373,124	112,975	19,299	505,399	0.0330	0.0639
230	146,866	55,559	0	202,425	0.0132	0.0463
240	219,160	120,861	34,492	374,513	0.0245	0.0377
250	77,473	34,492	0	111,965	0.0073	0.0318
270	162,910	56,974	0	219,885	0.0144	0.0217
280	27,941	0	0	27,941	0.0018	0.0162
290	29,142	71,859	0	101,001	0.0066	0.0084
300	98,730	34,492	0	133,222	0.0087	0.0153
320	179,789	0	0	179,789	0.0118	0.0205
350	19,463	0	0	19,463	0.0013	0.0130
360	28,118	0	0	28,118	0.0018	0.0031
380	28,345	0	0	28,345	0.0019	0.0037
420	145,391	0	29,142	174,533	0.0114	0.0133
430	0	119,715	0	119,715	0.0078	0.0192
460	28,118	28,118	0	56,236	0.0037	0.0115
470	27,417	0	0	27,417	0.0018	0.0055
480	86,451	0	0	86,451	0.0057	0.0074
490	28,345	56,236	0	84,581	0.0055	0.0112
500	75,362	28,118	0	103,480	0.0068	0.0123
510	57,680	173,291	34,492	265,463	0.0174	0.0241
520	28,118	19,463	0	47,581	0.0031	0.0205
530	121,670	19,674	0	141,345	0.0092	0.0124
540	272,153	58,722	0	330,875	0.0216	0.0309
550	34,492	64,264	0	98,756	0.0065	0.0281
560	98,730	214,025	0	312,755	0.0204	0.0269
570	271,075	131,469	0	402,544	0.0263	0.0468
580	114,158	127,872	0	242,031	0.0158	0.0421
590	133,222	166,287	0	299,509	0.0196	0.0354
610	0	83,098	0	83,098	0.0054	0.0250
640	0	28,201	0	28,201	0.0018	0.0073
650	0	18,276	0	18,276	0.0012	0.0030
660	0	28,118	0	28,118	0.0018	0.0030

Appendix D Table 7. -- Continued.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
670	0	56,750	0	56,750	0.0037	0.0055
680	30,715	56,319	0	87,034	0.0057	0.0094
700	0	28,201	0	28,201	0.0018	0.0075
710	0	27,441	0	27,441	0.0018	0.0036
720	66,310	0	0	66,310	0.0043	0.0061
730	28,550	0	0	28,550	0.0019	0.0062
740	0	28,201	0	28,201	0.0018	0.0037
750	0	30,715	0	30,715	0.0020	0.0039
770	0	85,861	0	85,861	0.0056	0.0076
780	30,715	28,201	0	58,916	0.0039	0.0095
790	30,715	0	0	30,715	0.0020	0.0059
810	0	98,730	0	98,730	0.0065	0.0085
820	0	17,815	0	17,815	0.0012	0.0076
840	0	28,345	0	28,345	0.0019	0.0030
850	0	86,885	0	86,885	0.0057	0.0075
860	0	30,715	0	30,715	0.0020	0.0077
870	0	59,060	0	59,060	0.0039	0.0059
880	0	97,929	0	97,929	0.0064	0.0103
890	0	104,332	0	104,332	0.0068	0.0132
900	0	30,715	0	30,715	0.0020	0.0088
910	0	117,057	0	117,057	0.0077	0.0097
930	0	60,389	0	60,389	0.0039	0.0116
940	0	18,120	0	18,120	0.0012	0.0051
960	0	58,833	0	58,833	0.0038	0.0050
970	0	28,201	0	28,201	0.0018	0.0057
1000	50,336	0	0	50,336	0.0033	0.0051
Total	6,938,239	4,852,584	3,506,534	15,297,357	1.0000	1.0000

Appendix D Table 8. -- Population estimates by sex and size for **arrowtooth flounder** (*Atheresthes stomias*) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
50	0	30,020	0	30,020	0.0000	0.0000
70	0	30,020	0	30,020	0.0000	0.0000
90	84,323	66,509	75,310	226,142	0.0002	0.0002
100	65,533	84,323	149,807	299,662	0.0002	0.0005
110	237,080	255,572	66,509	559,161	0.0005	0.0009
120	808,316	160,596	66,509	1,035,421	0.0008	0.0018
130	459,275	517,501	0	976,776	0.0008	0.0026
140	1,641,785	2,208,408	57,237	3,907,430	0.0032	0.0057
150	4,023,395	5,061,835	0	9,085,230	0.0074	0.0131
160	5,571,855	10,126,737	0	15,698,592	0.0128	0.0259
170	8,207,695	14,049,806	0	22,257,500	0.0181	0.0440
180	11,468,726	18,646,041	0	30,114,767	0.0245	0.0685
190	7,338,920	16,534,534	0	23,873,454	0.0194	0.0879
200	7,074,377	16,794,176	0	23,868,553	0.0194	0.1073
210	8,800,250	21,640,309	0	30,440,559	0.0247	0.1320
220	10,266,570	24,754,260	0	35,020,830	0.0285	0.1605
230	11,473,618	23,144,855	0	34,618,473	0.0281	0.1887
240	7,677,155	25,003,882	0	32,681,037	0.0266	0.2152
250	7,256,970	25,139,335	0	32,396,305	0.0263	0.2416
260	6,047,687	19,299,367	0	25,347,055	0.0206	0.2622
270	10,873,259	20,071,176	0	30,944,435	0.0252	0.2873
280	8,366,939	14,762,726	0	23,129,665	0.0188	0.3061
290	9,819,932	19,955,014	0	29,774,946	0.0242	0.3303
300	12,893,968	21,594,525	0	34,488,493	0.0280	0.3584
310	16,978,329	26,643,806	0	43,622,135	0.0355	0.3939
320	15,827,742	29,178,081	0	45,005,823	0.0366	0.4304
330	16,503,296	28,514,763	0	45,018,059	0.0366	0.4670
340	19,946,238	31,185,011	18,700	51,149,949	0.0416	0.5086
350	23,399,443	32,412,340	0	55,811,784	0.0454	0.5540
360	21,713,781	37,558,532	0	59,272,313	0.0482	0.6022
370	20,299,623	37,405,661	0	57,705,284	0.0469	0.6491
380	20,654,612	41,444,434	0	62,099,046	0.0505	0.6996
390	16,428,606	28,501,572	0	44,930,178	0.0365	0.7361
400	12,107,200	33,726,049	0	45,833,248	0.0373	0.7734
410	10,631,189	23,596,195	0	34,227,384	0.0278	0.8012
420	6,924,357	29,025,369	0	35,949,726	0.0292	0.8305
430	6,016,724	19,413,896	0	25,430,620	0.0207	0.8511
440	2,324,503	24,359,589	0	26,684,092	0.0217	0.8728
450	737,773	18,531,934	0	19,269,706	0.0157	0.8885
460	1,967,580	20,857,508	0	22,825,088	0.0186	0.9071
470	1,367,509	14,997,133	0	16,364,642	0.0133	0.9204
480	586,578	14,903,326	0	15,489,904	0.0126	0.9330
490	377,666	12,132,232	0	12,509,898	0.0102	0.9431
500	214,592	10,362,180	0	10,576,772	0.0086	0.9517

Appendix D Table 8. -- Continued.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
510	455,057	7,370,623	0	7,825,681	0.0064	0.9581
520	202,627	8,420,450	0	8,623,077	0.0070	0.9651
530	147,778	4,280,551	0	4,428,328	0.0036	0.9687
540	193,833	5,309,602	0	5,503,436	0.0045	0.9732
550	0	3,776,770	0	3,776,770	0.0031	0.9762
560	236,771	3,720,250	0	3,957,021	0.0032	0.9795
570	0	2,285,675	0	2,285,675	0.0019	0.9813
580	30,066	3,188,549	0	3,218,615	0.0026	0.9839
590	0	1,563,831	0	1,563,831	0.0013	0.9852
600	0	2,007,561	0	2,007,561	0.0016	0.9868
610	0	1,920,722	0	1,920,722	0.0016	0.9884
620	0	2,280,022	0	2,280,022	0.0019	0.9903
630	0	1,364,110	0	1,364,110	0.0011	0.9914
640	370,140	1,974,465	0	2,344,605	0.0019	0.9933
650	0	1,515,691	0	1,515,691	0.0012	0.9945
660	0	1,253,798	0	1,253,798	0.0010	0.9955
670	295,556	120,112	0	415,668	0.0003	0.9959
680	147,778	507,326	0	655,103	0.0005	0.9964
690	0	770,589	0	770,589	0.0006	0.9970
700	0	1,193,222	0	1,193,222	0.0010	0.9980
710	0	345,237	0	345,237	0.0003	0.9983
720	0	274,391	0	274,391	0.0002	0.9985
730	0	194,528	0	194,528	0.0002	0.9987
740	0	226,805	0	226,805	0.0002	0.9988
750	147,778	317,448	0	465,226	0.0004	0.9992
760	147,778	525,756	0	673,533	0.0005	0.9998
770	0	159,903	0	159,903	0.0001	0.9999
780	0	79,754	0	79,754	0.0001	1.0000
800	0	53,540	0	53,540	0.0000	1.0000
Total	357,840,130	871,682,419	434,072	1,229,956,622	1.0000	1.0000

Appendix D Table 9. -- Population estimates by sex and size for **Kamchatka flounder**
(Atheresthes evermanni) from the 2008 eastern Bering Sea bottom trawl
survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
90	29,856	0	0	29,856	0.0002	0.0002
100	0	28,220	61,013	89,233	0.0007	0.0010
110	336,476	86,356	29,273	452,105	0.0038	0.0048
120	84,970	87,848	0	172,817	0.0014	0.0062
130	135,783	0	0	135,783	0.0011	0.0074
140	260,869	55,135	0	316,003	0.0026	0.0100
150	313,751	214,144	0	527,895	0.0044	0.0144
160	689,148	512,789	0	1,201,937	0.0101	0.0245
170	964,143	714,060	0	1,678,202	0.0140	0.0385
180	704,187	626,632	0	1,330,819	0.0111	0.0497
190	890,392	586,078	0	1,476,469	0.0124	0.0620
200	1,109,362	872,283	0	1,981,645	0.0166	0.0786
210	1,470,121	920,174	0	2,390,295	0.0200	0.0986
220	1,963,838	1,874,119	0	3,837,957	0.0321	0.1307
230	1,413,814	1,355,734	0	2,769,548	0.0232	0.1539
240	862,053	705,550	0	1,567,603	0.0131	0.1670
250	492,705	464,814	0	957,520	0.0080	0.1750
260	391,697	314,312	0	706,009	0.0059	0.1809
270	692,004	699,647	0	1,391,651	0.0116	0.1926
280	880,529	851,988	0	1,732,517	0.0145	0.2071
290	826,070	650,986	0	1,477,056	0.0124	0.2194
300	1,247,157	1,136,473	0	2,383,630	0.0199	0.2394
310	1,188,254	1,314,406	0	2,502,660	0.0209	0.2603
320	1,083,146	1,240,491	0	2,323,637	0.0194	0.2798
330	1,654,396	1,458,052	0	3,112,448	0.0260	0.3058
340	3,379,970	2,961,760	0	6,341,730	0.0531	0.3589
350	4,087,941	2,428,000	0	6,515,941	0.0545	0.4134
360	4,861,713	2,548,117	0	7,409,830	0.0620	0.4754
370	3,585,641	2,967,881	0	6,553,522	0.0548	0.5302
380	4,821,929	4,290,708	0	9,112,637	0.0763	0.6065
390	4,049,289	3,004,595	0	7,053,884	0.0590	0.6655
400	4,798,970	4,431,414	0	9,230,384	0.0772	0.7427
410	3,246,833	3,824,890	0	7,071,723	0.0592	0.8019
420	3,199,572	3,955,676	0	7,155,248	0.0599	0.8618
430	1,229,522	2,345,038	0	3,574,560	0.0299	0.8917
440	1,306,692	1,491,969	0	2,798,661	0.0234	0.9151
450	1,016,260	953,052	0	1,969,312	0.0165	0.9316
460	1,059,207	963,539	0	2,022,745	0.0169	0.9485
470	115,879	303,253	0	419,132	0.0035	0.9520
480	543,723	939,174	0	1,482,897	0.0124	0.9644
490	132,403	145,192	0	277,595	0.0023	0.9668
500	189,084	368,764	0	557,848	0.0047	0.9714
510	129,123	430,064	0	559,187	0.0047	0.9761
520	153,320	62,473	0	215,793	0.0018	0.9779

Appendix D Table 9. -- Continued.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
530	341,378	165,988	0	507,366	0.0042	0.9822
540	156,223	130,382	0	286,605	0.0024	0.9846
550	29,112	167,452	0	196,564	0.0016	0.9862
560	255,749	59,253	0	315,002	0.0026	0.9888
570	29,174	61,525	0	90,699	0.0008	0.9896
580	108,506	73,051	0	181,557	0.0015	0.9911
600	35,429	30,989	0	66,418	0.0006	0.9917
610	0	147,778	0	147,778	0.0012	0.9929
620	0	78,044	0	78,044	0.0007	0.9936
630	0	28,118	0	28,118	0.0002	0.9938
640	0	101,649	0	101,649	0.0009	0.9946
650	0	92,220	0	92,220	0.0008	0.9954
670	0	86,024	0	86,024	0.0007	0.9961
690	0	165,120	0	165,120	0.0014	0.9975
710	0	103,833	0	103,833	0.0009	0.9984
720	0	63,891	0	63,891	0.0005	0.9989
730	0	45,691	0	45,691	0.0004	0.9993
740	0	30,989	0	30,989	0.0003	0.9996
760	0	21,378	0	21,378	0.0002	0.9997
810	0	31,100	0	31,100	0.0003	1.0000
Total	62,547,365	56,870,322	90,286	119,507,972	1.0000	1.0000

Appendix D Table 10. -- Population estimates by sex and size for **Pacific halibut** (*Hippoglossus stenolepis*) from the 2008 eastern Bering Sea bottom trawl survey.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
130	0	0	63,983	63,983	0.0006	0.0006
140	97,988	65,348	223,942	387,278	0.0036	0.0042
150	32,709	163,547	287,925	484,181	0.0045	0.0086
160	32,639	70,540	482,181	585,360	0.0054	0.0141
170	127,956	97,767	380,368	606,090	0.0056	0.0197
180	59,936	0	348,595	408,532	0.0038	0.0234
190	92,646	93,171	91,929	277,746	0.0026	0.0260
200	0	29,968	293,958	323,927	0.0030	0.0290
210	62,514	62,607	288,209	413,330	0.0038	0.0328
220	149,981	30,493	283,028	463,502	0.0043	0.0371
230	276,593	246,751	727,858	1,251,202	0.0116	0.0487
240	401,093	248,862	1,052,729	1,702,685	0.0157	0.0644
250	521,745	466,071	1,193,582	2,181,397	0.0202	0.0846
260	901,365	1,085,175	1,928,752	3,915,292	0.0362	0.1207
270	844,586	1,008,478	2,355,780	4,208,844	0.0389	0.1596
280	968,191	921,320	2,096,246	3,985,757	0.0368	0.1965
290	698,580	1,141,585	2,480,731	4,320,896	0.0399	0.2364
300	885,988	812,606	1,914,284	3,612,878	0.0334	0.2698
310	502,121	875,295	1,977,081	3,354,496	0.0310	0.3008
320	806,743	664,818	1,554,819	3,026,380	0.0280	0.3288
330	340,890	583,398	995,759	1,920,047	0.0177	0.3465
340	380,637	454,370	950,096	1,785,103	0.0165	0.3630
350	347,459	446,322	818,462	1,612,243	0.0149	0.3779
360	527,709	428,753	553,315	1,509,778	0.0140	0.3918
370	518,689	356,950	536,498	1,412,137	0.0131	0.4049
380	1,018,075	556,754	879,479	2,454,307	0.0227	0.4276
390	873,185	637,134	1,081,657	2,591,976	0.0240	0.4515
400	1,125,272	1,140,688	1,283,555	3,549,515	0.0328	0.4843
410	1,040,925	1,131,552	2,184,498	4,356,975	0.0403	0.5246
420	1,179,985	1,078,077	1,381,449	3,639,511	0.0336	0.5582
430	958,902	878,343	1,616,951	3,454,197	0.0319	0.5902
440	909,631	718,524	1,487,504	3,115,659	0.0288	0.6190
450	637,041	581,472	841,521	2,060,034	0.0190	0.6380
460	880,909	580,570	848,414	2,309,893	0.0213	0.6593
470	776,833	744,886	936,951	2,458,670	0.0227	0.6821
480	643,331	595,373	971,565	2,210,269	0.0204	0.7025
490	457,546	519,998	733,251	1,710,794	0.0158	0.7183
500	535,749	708,153	690,747	1,934,649	0.0179	0.7362
510	338,369	541,280	692,229	1,571,878	0.0145	0.7507
520	468,847	747,729	730,574	1,947,150	0.0180	0.7687
530	318,771	325,510	463,510	1,107,791	0.0102	0.7789
540	456,261	460,970	775,778	1,693,009	0.0156	0.7946
550	409,574	180,057	571,297	1,160,927	0.0107	0.8053
560	436,582	396,879	649,710	1,483,171	0.0137	0.8190
570	375,137	215,227	451,704	1,042,067	0.0096	0.8286

Appendix D Table 10. -- Continued.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
580	458,374	473,804	508,910	1,441,089	0.0133	0.8420
590	257,772	299,972	628,387	1,186,130	0.0110	0.8529
600	343,946	277,464	424,786	1,046,197	0.0097	0.8626
610	259,710	315,671	327,277	902,658	0.0083	0.8709
620	573,893	210,897	659,765	1,444,555	0.0133	0.8843
630	296,500	325,036	208,679	830,215	0.0077	0.8920
640	109,431	328,503	384,633	822,567	0.0076	0.8996
650	282,272	322,144	363,933	968,348	0.0089	0.9085
660	135,633	253,021	373,560	762,214	0.0070	0.9156
670	244,120	330,937	144,327	719,384	0.0066	0.9222
680	130,081	147,620	196,191	473,892	0.0044	0.9266
690	109,040	286,496	109,446	504,982	0.0047	0.9312
700	113,096	136,101	223,579	472,776	0.0044	0.9356
710	59,555	211,853	122,818	394,226	0.0036	0.9393
720	178,675	298,958	128,510	606,143	0.0056	0.9449
730	138,088	146,257	157,079	441,423	0.0041	0.9489
740	26,817	204,736	62,404	293,957	0.0027	0.9517
750	119,640	260,000	161,174	540,814	0.0050	0.9567
760	107,790	153,482	178,385	439,656	0.0041	0.9607
770	61,215	117,291	122,688	301,194	0.0028	0.9635
780	59,032	151,988	119,111	330,131	0.0031	0.9666
790	31,288	148,988	74,040	254,315	0.0024	0.9689
800	60,367	119,653	57,893	237,914	0.0022	0.9711
810	88,184	58,658	0	146,842	0.0014	0.9725
820	78,250	240,414	74,749	393,414	0.0036	0.9761
830	27,634	29,886	30,403	87,922	0.0008	0.9769
840	77,728	50,065	22,040	149,832	0.0014	0.9783
850	25,687	77,934	122,245	225,866	0.0021	0.9804
860	27,488	77,197	30,603	135,288	0.0013	0.9816
870	0	57,828	58,161	115,989	0.0011	0.9827
880	0	0	60,538	60,538	0.0006	0.9833
890	60,627	78,587	34,331	173,545	0.0016	0.9849
900	28,851	0	28,432	57,284	0.0005	0.9854
910	29,346	28,601	50,303	108,250	0.0010	0.9864
920	27,539	0	57,652	85,191	0.0008	0.9872
930	0	59,187	0	59,187	0.0005	0.9877
940	17,713	0	32,183	49,896	0.0005	0.9882
950	27,251	29,927	0	57,178	0.0005	0.9887
960	28,947	57,739	37,305	123,992	0.0011	0.9899
970	57,480	57,436	27,025	141,942	0.0013	0.9912
980	60,789	0	28,570	89,359	0.0008	0.9920
990	0	89,873	0	89,873	0.0008	0.9928
1000	28,709	50,103	0	78,812	0.0007	0.9936
1010	0	30,046	0	30,046	0.0003	0.9938
1020	0	17,465	29,560	47,025	0.0004	0.9943
1030	0	0	22,731	22,731	0.0002	0.9945
1040	0	28,947	0	28,947	0.0003	0.9948
1050	31,278	28,394	86,076	145,749	0.0013	0.9961

Appendix D Table 10. -- Continued.

Length (mm)	Males	Females	Unsexed	Total	Proportion	Cumulative proportion
1060	0	58,392	18,105	76,497	0.0007	0.9968
1070	17,713	30,058	0	47,770	0.0004	0.9972
1080	0	0	30,022	30,022	0.0003	0.9975
1090	0	58,049	0	58,049	0.0005	0.9981
1100	0	15,296	0	15,296	0.0001	0.9982
1110	16,507	0	55,580	72,087	0.0007	0.9989
1120	0	0	27,012	27,012	0.0002	0.9991
1150	0	30,586	0	30,586	0.0003	0.9994
1160	0	0	17,786	17,786	0.0002	0.9996
1180	0	16,801	0	16,801	0.0003	0.9998
1360	0	0	30,148	30,148	0.0002	1.0000
Total	28,333,736	29,971,711	49,901,592	108,207,040	1.0000	1.0000

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