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The 2012 Eastern Bering Sea Continental Shelf Bottom Trawl Survey: Results for Commercial Crab Species

by
R. J. Foy and C. E. Armistead

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

The eastern Bering Sea bottom trawl survey has been conducted annually since 1975 by the Resource Assessment and Conservation Engineering Division of the Alaska Fisheries Science Center, National Marine Fisheries Service. The purpose of this survey is to collect data on the distribution and abundance of crab, groundfish, and other benthic resources in the eastern Bering Sea. These data are used to estimate population abundances for the management of commercially important species in the region. In 2012, 376 standard stations were sampled on the eastern Bering Sea shelf and 20 stations were resampled in Bristol Bay at the end of the standard survey to account for the effects of cold water temperatures on female red king crab maturity. The 2012 biomass estimates reported in metric tons (t) and pounds (lb) with 95% confidence intervals (± 1.96 SE) for legal-sized males of commercial crab stocks in the eastern Bering Sea were as follows:

Commercial Crab Species	2012 Legal-sized Male Biomass (± 95% CI)	
	t	lb
Bristol Bay District red king crab (*Paralithodes camtschaticus*)	19,713 (11,764)	43,460,173 (25,935,098)
Pribilof District red king crab	4,360 (4,846)	9,611,595 (10,684,352)
Pribilof District blue king crab (*P. platypus*)	459 (579)	1,011,867 (1,275,901)
St. Matthew Island Section blue king crab	3,312 (1,915)	7,302,714 (4,222,199)
Southern Tanner crab (*Chionoecetes bairdi*), east of 166° W	10,734 (4,902)	23,663,739 (10,807,647)
Southern Tanner crab, east of 166° W ≥ 5.5 inches	4,534 (2,534)	9,995,378 (5,586,704)
Southern Tanner crab, west of 166° W	11,928 (3,618)	26,297,777 (7,977,050)
Southern Tanner crab, west of 166° W ≥ 5.0 inches	6,365 (2,405)	14,032,893 (5,302,845)
Snow crab, all districts (*C. opilio*)	104,456 (24,269)	230,285,399 (53,503,016)
Snow crab, all districts ≥ 4.0 inches	53,173 (15,618)	117,225,816 (34,431,363)

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INTRODUCTION

Survey History and Purpose

The eastern Bering Sea (EBS) bottom trawl survey has been conducted by scientists in the Resource Assessment and Conservation Engineering (RACE) Division of the Alaska Fisheries Science Center (AFSC), National Marine Fisheries Service (NMFS) since the early 1970s. Starting in 1975, surveys were conducted annually and were expanded to include Bristol Bay along with the majority of the Bering Sea continental shelf with the original purpose of assessing potential resource impacts of offshore oil development (Pereyra et al. 1976). The annual collection of data on the distribution and abundance of crab and groundfish resources provides fishery-independent estimates of population abundance and biological data for the management of commercially important species in the EBS. The crab species that have historically been assessed during the survey include: red king crab (*Paralithodes camtschaticus*), blue king crab (*P. platypus*), southern Tanner crab (*Chionoecetes bairdi*), snow crab (*C. opilio*), and hair crab (*Erimacrus isenbeckii*). The common name for *C. bairdi* changed from Tanner crab to southern Tanner crab in 2005 (McLaughlin et al. 2005) but will be referred to as Tanner crab in this document.

Prior to 1988, the total number of stations varied and gradually increased until standardized in 1988 (Fig. 1). Therefore, the pre-1988 estimates provided in this document for stocks that extend northwest of the Pribilof Islands are biased. Since 1988, 376 standard stations have been included in the survey covering a 140,350 square nautical mile (nmi^2) area of the EBS with station depths ranging from 20 to 200 m (Fig. 2). The annual EBS bottom trawl survey begins in the northeast section of Bristol Bay in early June and approximately 10 to 12 stations are sampled each day from two vessels. The standard survey is completed in late July at the western edge of the survey grid, northwest of St. Matthew Island. In some years when the reproductive cycle of red king crab is delayed due to colder water temperatures, a small portion of the inner Bristol Bay area is resampled after the conclusion of the standard survey (see Results: Bristol Bay District Red King Crab section).

Between 1994 and 2010, a survey station producing $\geq$ 100 legal-sized red king or Tanner crab males was considered a "hot spot". At each hot spot, additional tows were made within the station area and all crab species caught were sampled identical to the standard survey tow protocol described in the Methods section. In 2011, there was one station, G-21 (Fig. 2), with $\geq$ 100 legal-sized Tanner crab. In 2012, there were no stations with $\geq$ 100 legal-sized Tanner or red king crab.

Eastern Bering Sea Crab Stock Assessment Process

Crabs included in the federal Bering Sea and Aleutian Islands (BSAI) King and Tanner crab Fisheries Management Plan are managed by the Alaska Department of Fish and Game (ADF&G) with federal oversight by NMFS (NPFMC 1998). The annual stock assessment and fishery evaluation (SAFE) report prepared by the North Pacific Fishery Management Council's Crab Plan Team provides current biological, ecosystem, and economic data associated with these

species. The NMFS determines the procedure for setting overfishing levels and allowable biological catch while ADF&G sets the annual total allowable catch or guideline harvest level for each crab stock. Currently, the Crab Plan Team and the Council's Scientific and Statistical Committee review the assessment, biological, economic, and modeling data to recommend biological reference points associated with the status of crab stocks. Crab stock boundaries are defined by ADF&G management units for king crab and Tanner crab species (Bowers et al. 2010). Red king crab are split into Bristol Bay and Pribilof Islands stocks, blue king crab are split into Pribilof Islands and St. Matthew Island stocks for management purposes, while Tanner and snow crab fisheries are considered single stocks but are split into separate management fishery units defined by the ADF&G Board of Fisheries using 166 °W and 173 °W as the boundary for each east and west unit, respectively.

This report summarizes the 2012 survey results for commercially important crab resources in the EBS. Note that area swept estimates in this document may not match the final modeled population estimates in the SAFE reports because the models include additional population dynamics information. The results of the 2012 standard EBS bottom trawl survey are presented for these crab stocks as defined by the management units. Details of the survey design and fishing gear specifications in addition to the number and weights of the groundfish species sampled at each standard station during this survey will be reported in a separate NOAA Technical Memorandum (e.g., Lauth 2011).

METHODS

Survey Area and Sampling Logistics

The 2012 standard survey was conducted onboard the chartered fishing vessels FV *Alaska Knight* and FV *Aldebaran*, beginning 4 June in the northeast corner of Bristol Bay, moving westward, and finishing on 25 July. The vessels sampled in close proximity during the standard survey, with the FV *Alaska Knight* returning to Bristol Bay to resample 20 stations between 29 July and 02 August. These stations were resampled due to the delaying effects of cold water temperatures on the red king crab reproductive cycle (see Results: Bristol Bay District Red King Crab).

The survey stations are divided into multiple districts, which are defined by ADF&G commercial crab management units (Fig. 3). Management units are defined by registration areas and districts, which are further divided into strata with standard or high station densities. Standard-density strata have stations centered in 20 × 20 nmi (37.04 × 37.04 km) cells while high-density strata include additional stations at the corners of the 20 × 20 nmi cells. To calculate the total area for each stock strata the area for each 20 × 20 nmi cell is assumed to be 401 nmi^2 due a spherical projection of the grid surface in an area as large as the EBS. The king crab Registration Area T in Bristol Bay (south of 58 °39 ′N and east of 168 °W) is 54,536 nmi^2 and consists of 136 stations within the stratum. The king crab Registration Area Q in the Bering Sea is divided into the Northern District (north of 58° 39′ N) and the Pribilof District (south of 58° 39′ N and west of 168°W). The stratum for the St. Matthew Island section of the Northern District is divided into two sampling areas: 1) a high-density 7,218 nmi^2 area with 28 stations (one of which is not

trawlable but included in the total area surveyed) and 2) a standard-density 11,629 nmi^2 area with 29 stations creating a total of 57 stations within the St. Matthew Island Section stratum. The stratum of the Pribilof District is divided into two sampling areas: 1) a high-density 10,025 nmi^2 area with 41 total stations and 2) a standard-density 14,436 nmi^2 area with 36 stations creating a total of 77 stations within the stratum.

The fishing gear used in 2012 was identical to that of previous EBS annual bottom trawl surveys since 1982 with both vessels fishing a standard 83-112 Eastern otter trawl with an 83 ft (25.3 m) headrope and a 112 ft (34.1 m) footrope (Lauth 2011). The codend mesh size is is 8.9 cm stretched and the liner is 3.2 cm. The trawls on each vessel were rotated every 25-30 consecutive tows to mitigate potential impacts from changes in net configuration due to fishing. Each tow was approximately 0.5 h in duration and 1.5 nmi (2.8 km) in length at a speed of 3 knots (1.54 m/sec) and conducted in strict compliance with NMFS bottom trawl protocols established by the National Oceanic and Atmospheric Administration (Stauffer 2004).

Net mensuration equipment was used to monitor the net's fishing performance during each tow (Lauth 2011). A bottom contact sensor was attached to the center of the footrope to measure bottom contact of the net at 1-second intervals. The net mensuration system also consisted of an acoustic sensor attached to the headrope and two sensors attached to the port and starboard dandylines to measure net height and width during trawling operations. The bottom contact of the footrope and GPS data were used to calculate distance fished. Fishing power was assumed to be equal between the two vessels.

Surface and bottom water temperatures along with temperature-depth profiles were collected at 6-second intervals throughout the duration of each tow using a Seabird SBE-39 bathythermograph continuous data recorder (Sea-Bird Electronics Inc., Bellevue, WA) attached to the headrope of the net. The temperature measurement range of the SBE-39 is -5 to 35 ± 0.002 °C with pressure sensors measuring to a maximum depth of 1,000 ± 1 m and are calibrated every year by Sea-Bird Electronics. Bottom depth was also derived from this data by adding the net height from the net mensuration system to the headrope depth recorded by the SBE-39.

Biological Data Collection

All crab were removed from the catch, sorted by species and sex, and a total catch weight was obtained for each species. Tanner and snow crab hybrids are identified by a combination of characteristics including curve of the epistome margin, eye color, carapace shape, and space between or shape of the rostrum horns (Karinen and Hoopes 1971, Urban et al. 2002). A random subsample of the total catch occurred when an exceptionally large number (>300) of a species was caught in a tow. The subsample varied in size and composition depending on the particular tow. The subsample may have occurred at the level of the entire catch or at the level of a particular size and sex category once the catch was sorted. The total weight of the sampled crab and non-sampled crab were recorded and an expansion factor was calculated to determine the final number of each species in the catch.

Individual crab carapaces were measured (± 1 mm) to provide a size-frequency distribution of each sample. Crab sizes are reported as carapace width (CW) excluding spines for Tanner and snow crab, and carapace length (CL) for all king crab and hair crab (Donaldson and Byersdorfer 2005). Individual weights were collected on a subsample of each species to add to the existing length-weight data. Carapace shell condition was assessed for each crab sampled and assigned to one of six classes according to specific criteria (0 = premolt or molting, 1 = soft and pliable, 2 = new hardshell both firm and clean, 3 = oldshell slightly worn, 4 = oldshell worn, 5 = very oldshell). All female crab abdomens were evaluated to determine reproductive condition based on the size of the egg clutch (0 = immature, 1 = mature female no eggs, 2 = trace to 1/8, 3 = 1/4, 4 = 1/2, 5 = 3/4, 6 = full), the condition of the eggs (0 = no eggs, 1 = uneyed, 2 = eyed, 3 = dead, 4 = empty egg cases), and color of the eggs (0 = no eggs, 2 = purple, 3 = brown, 4 = orange, 5 = purple-brown, 6 = pink).

A standard project added in 2012 was to begin monitoring primary indicators of female reproductive potential for mature crabs throughout their distribution. For *Chionoecetes* spp. 15 mature female crab and for *Paralithodes* spp. 20 mature female crab were collected from each tow. Egg clutches were removed and sent back to the laboratory for an assessment of fecundity and condition.

Egg clutch and egg condition codes were used to assess the stage in the molt-mate cycle of mature female red king crab during the survey, where the presence of eyed embryos, empty egg cases, or absence of eggs (barren, hereafter) in mature-sized females were indications of an incomplete cycle while mature females brooding uneyed embryos indicated completion of the cycle. The ratio of females with eyed embryos, empty egg cases, and old shell barren to uneyed embryos was derived as a measurement of the molt-mate cycle progression during the survey.

Chela height and carapace width measurements (± 0.1 mm) were collected from a subsample (typically <10 crab per haul) of male *Chionoecetes* spp. crab caught at each station to determine morphometric molt to functional maturity based on the chela height to carapace width ratio (Stevens et al. 1993, Tamone et al. 2007). Functional maturity in male *Chionoecetes* spp. can be separated into two morphometric groups, small claw and large claw based on the frequency distribution of the chela height to carapace width ratio in the large and small claw categories (Tamone et al. 2007).

All crab carapaces were scanned for evidence of bitter crab syndrome or black mat fungus and recorded when present. Crabs with bitter crab syndrome were set aside for further testing by the Fisheries Resource Pathology Laboratory at the AFSC in Seattle, WA.

Crab Biomass Estimates

Crab density (number nmi^{-2}) was estimated at each station for legal males, or sublegal males, as well as mature and immature males and females of each stock. Maturity and legal size classes were based on literature values and State of Alaska regulations (Table 1). The area swept by the trawl (nmi^2) was calculated as the product of the distance traveled while the net had bottom contact by the mean net width over the duration of the tow. Prior to 2009, data reported in annual

survey assessment document used a fixed width of 15.2 m (0.008 nmi) in the area swept calculation to maintain consistency with historical calculations of crab abundances (Fig. 4). Since the 2009 publication of annual survey results, all population biomass estimates for the entire time series are calculated using the variable net width based on net mensuration data (Table 2). The effective width of the trawl typically ranges from 14.6 to 18.3 m when towing at a speed of 3 knots (Weinberg 2003; Fig. 4), and changes with the depth of the tow due to changes in scope of the trawl wire (Rose and Walters 1990). For 2012 and all historical data reported in this current document, crab densities were calculated using the mean net width recorded for the duration of each tow and a mean net width-inverse scope regression relationship was calculated when net width values were not recorded during a tow (Rose and Walters 1990). From 1975 to 1981, the net width estimates used for the area swept calculations were derived from a single width estimate calculated each year for a particular type of trawl used during the annual survey. From 1982 to 1987, the net width used in the area swept calculations was estimated using the inverse relationship between net scope and net width developed by Rose and Walters (1990). From 1988 to 2012, the net width was estimated using the net mensuration system described above, which measures the height and width of the net throughout the duration of the tow (Table 2, Fig. 4). Distance traveled by the trawl was determined from ship GPS positions recorded at the beginning and end of each tow.

All reported historical data and the current biomass estimates are calculated for the number of individual male and female crab species at each 1 mm size category using the weight-size relationships developed by the AFSC Kodiak Laboratory (Table 3). The weight-size relationships are described by the expression:

$$W = a\, L^{b}$$

where W is the total weight in grams, L is either CL or CW in mm, a is the intercept in log scale and b is the slope. Parameters a and b for the size-weight relationships are estimated from a linear regression fitted to log-transformed size-weight data.

The weights calculated at each 1 mm size category are summed within the legal male, sublegal male, mature and immature size categories for each species and sex caught at a station. The crab biomass within a district or section stratum was estimated by averaging crab densities from all stations within the defined district or section stratum and multiplied by the total area of the district or section stratum specific to that stock. Total biomass was calculated using a stratified design based on management units (standard-density, high-density, ADF&G defined districts, or section stratum). Population biomass estimates were calculated in each stratum and then summed among strata. Variance of the total biomass estimate for each size class was calculated by summing the variance of each stratum. The 95% confidence intervals were calculated using the standard error of the total population multiplied by 1.96. All biomass estimates and confidence intervals (± 95%) reported in this document are reported in metric tons (t) except in the Abstract where both metric tons and pounds are reported. Metric tons can be converted to pounds by

multiplying the biomass in tons by 2,204.62 for comparison with ADF&G reported values of total allowable catch (TAC) and guideline harvest levels (GHL).

In the Bristol Bay District, two tows were completed at A-04 due to the final position of the Z-04 tow which only has limited area within the trawlable depth range. At stations with multiple tows (i.e., station A-04), a single estimate of crab density was used by averaging all tows within the station prior to calculating total crab biomass.

In years with colder than average bottom water temperatures, (1999, 2000, and 2006 - 2011) a small number of standard Bristol Bay stations sampled at the beginning of the survey were resampled in late July to accurately assess the percentage of ovigerous red king crab females which had extruded a new clutch of uneyed embryos. In 2012, it was necessary to resample 20 Bristol Bay stations in late July due to the low number of newly molted, ovigerous female with clutches of uneyed embryos encountered in early June. These resample stations were selected based on the density of female red king crab at these stations during the first sampling event and from expected distributions based on previous Bristol Bay surveys. The 2012 total population estimates for Bristol Bay red king crab males were calculated using only standard tows from Leg 1 in June. Bristol Bay female red king crab biomass estimates were calculated by replacing data collected at the original stations with data collected at the resample stations in July due to crab movement into the sampling area during the time between the standard survey and the resampling event.

The population biomass estimates reported in this document are point estimates and have substantial uncertainty due to the expanse of the area being sampled and the distributions of the resource. These point estimates are least precise for small crabs due to gear selectivity, and for females of some stocks due to crab behavior. For example, female blue king crab prefer rocky habitat, which is difficult to sample with bottom trawls. For consistent analyses and due to a lack of available data, catchability is assumed to be near or equal to one.

Centers of Distribution

The centers of distribution for male and female crab from 1975 to 2012 were determined by averaging the latitude and longitude of each positive tow for a particular species. Latitude and longitude were weighted by the catch per unit effort (CPUE) for each size and sex class. For years with retows both tows were included separately.

RESULTS

Survey Overview

The 2012 EBS bottom trawl survey consisted of 396 bottom trawls (376 standard survey stations, and 20 resampled stations in Bristol Bay) conducted from 4 June to 02 August over an area of approximately 140,350 nmi^2 beginning in the southeast corner of Bristol Bay, moving northwest of St. Matthew Island and following the slope edge south to finish on 25 July. The latitude and longitude of the midpoint of each successful tow along with the duration (h), distance fished (km), bottom depth (m) and bottom temperatures (°C) are listed in the Appendix. The mean distance fished was 1.51 nmi (2.80 km, SD = 0.11 nmi) with a range of 0.78 to 1.77 nmi (1.44 to 3.27 km) and the mean fishing time was 30.5 minutes (SD = 2.26 min). The fishing depth of the 83-112 Eastern otter trawl ranged from 19 to 173 m with a mean gear depth of 78.0 m (SD = 33.6 m). The mean net width per tow ranged from 11.74 to 21.1 m and the average mean net width for all 396 successful tows was 16.7 m with a standard deviation of 1.6 m.

The bottom temperature at each station during the standard survey ranged from -1.7 to 7.0°C (Fig. 5). A cold pool of water < 2°C extended onto the middle shelf between the 50 and 100 m isobaths and all the way into the eastern edge of Bristol Bay with cold temperatures persisting northeast of the Pribilof Islands. Warmer bottom temperatures were evident between the 100 and 200 m isobaths in the southern area of the survey area and in shallow waters north of Bristol Bay. Cold water temperatures persisted in the northwestern area between the 50 and 200 m isobaths and the waters surrounding St. Matthew Island. In 2012, the average bottom water temperature during the first survey leg (4 to 20 June 2012) was 1.3 °C (SD = 1.5) which was colder than the average mean bottom water temperature during the same time period in 2011 (Mean = 2.6 °C, SD = 1.0), 2010 (Mean = 1.8 °C, SD = 1.6), 2009 (Mean 1.5 °C, SD = 0.5), 2008 (Mean = 1.4 °C, SD = 0.7), and 2007 (Mean = 1.8 °C, SD = 0.9). The bottom water temperatures at the 20 stations resampled in July ranged from 1.3 to 7.9 °C, with a mean of 3.8 °C (SD = 1.8) (Fig. 6).

The total mature male biomass of the six commercial crab stocks sampled during this survey has fluctuated dramatically from 1975 to the present (Fig. 7). Overall commercial crab mature male biomass decreased from approximately 300,000 t to below 100,000 t in the mid-1980s, increased to just below 500,000 t due to increases in snow and Tanner crab in the early 1990s, and has since leveled out around 200,000 t in the past 6 years (Fig. 7).

Seven special projects were conducted in addition to the standard assessment survey to collect specific biological data from particular crab species (Table 4). Four of the projects originated from the AFSC Shellfish Assessment Program: 1) assess the spatial variation in snow crab functional vs morphological male maturity, 2) evaluate adult and juvenile red king crab distribution at nearshore stations along the Alaska Peninsula, 3) collect specimens with rare or unusual pathological conditions, and 4) collect hemolymph samples at randomly selected stations to monitor bitter crab syndrome and for population genetics. For two University of Alaska projects, data were collected to evaluate the population genetics of Tanner crab and reproductive

biology of male snow crab. Samples were collected from female Tanner and snow crab to support an ADF&G project to validate preservation methods of reproductive tissues.

Nine survey stations were added to the standard survey design to assess adult and juvenile red king crab distribution in the nearshore waters of Bristol Bay. Over 300 male snow crab were analyzed for reproductive maturity with 151 samples returned to the Kodiak Laboratory to identify the presence or absence of spermatophores. Hemolymph samples were collected from 900 *C. opilio*, 293 *C. bairdi*, 1 *C. hybrid*, 132 *P. platypus*, and 1 *P. camtschaticus* to monitor bitter crab syndrome. Hemolymph samples were also collected from 95 Tanner crab for genetics research. All collections were completed within the guidelines stipulated by the ADF&G collection permit for each project.

Bristol Bay District Red King Crab

Red king crab were caught at 59 of the 156 stations (136 Bristol Bay district stations and 20 resample stations) in the Bristol Bay management district in 2012. The density of legal-sized male crab caught at a station ranged from 67 to 3,529 crab nmi^{-2} (see Appendix). Legal-sized male Bristol Bay red king crab were caught at 46 stations (Table 5, Appendix), resulting in a total biomass estimate (± 95% CI) of 19,713 ± 11,763 t (Tables 5 and 6) and a total abundance estimate (± 95% CI) of 6.7 ± 3.8 million crab (Table 7) in the Bristol Bay District. The majority of these males were concentrated in the central and southwest section of Bristol Bay along the Alaska Peninsula (Figs. 8 and 9). The 2012 estimated biomass of legal-sized males (Table 6) is higher than last year but still lower than the 20-year average of 24,033 ± 11,500 t.

Red king crab mature males were encountered at 53 of the 156 surveyed stations with 31% occurring at 2 stations (Fig. 10). All of the 318 mature males and 266 immature males caught were measured (Table 5). The estimated biomass of 24,656 ± 13,366 t for mature males (Tables 5 and 6) is 81% of the total male biomass in 2012 and the estimated biomass of immature male red king crab is 5,799 ± 3,430 t (Table 5). The majority of both size categories were centrally located in the Bristol Bay District (Figs. 8 and 9).

The 2011 juvenile size group (40 to 50 mm CL size category) was not encountered in 2012 and the remaining size distribution was similar to previous years (Fig. 11). In 2012, 48% legal-sized male were hardshell crabs and 36% were oldshell and very oldshell crabs with the majority of oldshell males caught in central Bristol Bay and at depths of 50 m or less (Fig. 12).

One objective of this multi-species bottom trawl survey is to assess the mature red king crab population when mature females are carrying newly extruded, uneyed embryos after completion of the molt-mate cycle (Otto 1986). Embryo development and larval hatching in female red king crab, followed by the molting and mating cycle, are delayed in years with cold bottom water temperatures (Shirley et al. 1990, Stevens and Swiney 2007, Chilton et al. 2011a). During years with colder than average bottom temperatures, (1999, 2000, and 2006 - 2011) the ratio of eyed to uneyed embryos encountered in mature females on the survey in June was higher compared to warmer years (2001-2005). In years with relatively warmer water temperatures, more than 94% of the mature females in June carried uneyed embryos (Chilton et al. 2011a). The eyed to uneyed

embryo ratio ranged from 6.54 to 0.42 in cold years, compared to 0.06 to 0.01 in the warmer years, indicating that a high number of females within the survey area did not complete the molting and mating cycle in early June. The ratio of eyed to uneyed embryos in mature females decreased dramatically when the Bristol Bay stations were resampled in cold years, ranging from 0.06 to < 0.01, and indicating that the majority of mature females completed the mating and molting cycle (Table 8).

The indication that the molting and mating cycle is delayed is determined during the first leg of the survey by high numbers of oldshell mature females either brooding eyed embryos, which were fertilized from the previous season, or with pleopods exhibiting empty egg cases. To determine whether we need to retow the Bristol Bay red king crab stations, the reproductive condition of the mature female red king crab and the change in abundance of males and females between survey legs during cold years are assessed.

Similar to the previous 6 years, the cold water temperatures in 2012 (Table 8) delayed the molting and mating cycle in mature female red king crab and only 35% of the 684 mature females sampled during the standard survey had extruded a new clutch of uneyed embryos. Bottom temperatures significantly increased from June (0.9 °C) to the retow in July (4.0 °C) which was followed by a significant change in the eyed to uneyed ratio during the survey (Table 8). In early June, the oldshell females with empty egg cases were distributed throughout Bristol Bay while the new, hardshell females with uneyed embryos were primarily distributed along the western edge of the stock (Fig. 13a). Among resurveyed female crab in late July, 76% were mature females and 99% of these were in new, hardshell condition with newly extruded uneyed embryos (Fig. 13b). These new, hardshell females had molted and mated over the 6-week period between the first sampling event in early June samples and the resample in late July (Fig. 13b). In 2012, the ratio of eyed to uneyed embryos decreased from 0.91 in early June during the standard survey to 0.00 in late July during the resampling event (Table 8). The total density of mature female red king crab caught at the 20 resample stations in early June was 2,484 crab nmi^{-2} compared to a total density of 2,456 crab nmi^{-2} at those same resample stations in late July (Figs. 14a and 14b). The distribution of stations with a higher density of mature females was farther north towards the central portion of Bristol Bay and deeper than 50 m. A similar shift in distribution was noted for mature male red king crab between June and July (Figs. 15a and 15b).

The 2012 biomass estimates for female red king crab were calculated by replacing data collected at the original stations in early June with data collected at the resample stations in late July. The 2012 mature female red king crab biomass estimate of 28,039 ± 18,669 t (Table 6) and abundance estimate of 21.1 ± 15.0 million crabs (Table 7) is 94% of the total female abundance with immature female red king crab biomass estimated at 1,903 ± 1,845 t (Tables 5 and 6). The majority of the mature female red king crab were caught in the central area of Bristol Bay and along the Alaska Peninsula while a high number of juvenile females were caught at the northeastern portion of the stock (Figs. 9 and 14). Immature female red king crab with new shells were between 50 and 95 mm while mature crabs were mostly new shell and 75% full (Fig. 16). The length distribution between June and July (retow) was similar with the addition of the 50-75 mm size class in July (Fig. 17). For males, the distribution of crab between June and July was slightly smaller with more old shell crab surveyed in July (Fig. 18).

The centers of distribution for mature male and female red king crab shifted north and east of the southwest Bristol Bay region from 1980 to 1987 (Fig. 19). From 1988 to 1991, the mature female distribution slightly shifted south before returning to the northeastern distribution while males remained in the northeast. Loher and Armstrong (2005) hypothesized that this shift during the late 1970s and early 1980s was due to warmer bottom temperatures. In more recent years from 2008 to 2012 when the cold pool extended onto the Bristol Bay shelf area, the distribution of mature females and males moved from the central area of Bristol Bay to the nearshore areas along the Alaska Peninsula supporting this hypothesis (Chilton et al. 2011b).

Pribilof District Red King Crab

Historically, red king crab were not abundant in the Pribilof District and landings were taken incidentally during the blue king crab fishery. The red king crab fishery first opened in 1993 while fishing for blue king crab was closed. A combined fishery for red and blue king crab occurred in the Pribilof District from 1995 through 1998, but due to low abundance of blue king crab, the combined fishery and the red king crab fishery have both remained closed since the 1998/1999 season (Gish 2006).

Red king crab were caught at 12 of the 77 stations in the Pribilof District; 10 stations in the high-density sampling area and 2 stations in the standard-density sampling area in 2012. The density of legal-sized males caught at a station ranged from 67 to 2,443 crab nmi^{-2} (Appendix; Fig. 20). Legal-sized male red king crab were caught at 9 of the 77 stations in the Pribilof District (Table 5) with a biomass estimate (± 95% CI) of 4,360 ± 4,846 t (Tables 5 and 9) and an abundance estimate (± 95% CI) of 1.2 ± 1.3 million crab (Table 10). Legal-size males represented 91% of the total male biomass but were below the average of 5,284 ± 5,905 t from the previous 20 years (Table 9). The majority of the legal-sized males were distributed around and to the northeast of St. Paul Island (Fig. 21).

Mature males were encountered at 9 of the 77 stations in the Pribilof District (Table 5); 9 stations in the high-density sampling area, and zero stations in the standard-density sampling area. All of the 65 mature and 19 immature males caught were measured (Table 5). Two stations accounted for 81% of all mature male red king crab caught (Fig. 22). The biomass estimate of mature males was 4,477 ± 5,031 t and represented 93% of the total male biomass (Table 9) with the remaining 7% represented by 336 ± 636 t of immature male red king crab (Table 5). Mature males were distributed around St. Paul Island in the nearshore shallow water stations and to the northeast of St. Paul Island (Figs. 21 and 22).

The 2012 size-frequency for red king crab males shows a similar number of oldshell and very oldshell legal-sized males compared to 2011 shell conditions (Fig. 23). In 2012, 51% of the legal-sized males were new hardshell crabs and distributed northeast of St. Paul Island. Forty-one percent of the legal-sized males were in oldshell and very oldshell condition and primarily distributed southeast of St. Paul Island (Fig. 24).

The 2012 biomass estimate of mature-sized red king crab females was 663 ± 710 t (Tables 5 and 9) and abundance was 0.4 ± 0.5 million crab (Table 10), representing 100% of the total female biomass collected during the survey. Female biomass estimates are imprecise due to the limited number of tows with positive crab catches (Appendix, Fig. 21). A majority of the mature females were carrying uneyed embryos with 43% of the mature females in new hardshell condition (Fig. 25). The majority of mature females with uneyed embryos were in the 130 mm to 140 mm CL size class.

The centers of distribution for both males and females have moved within a 40 nmi by 40 nmi region around St. Paul Island (Fig. 26). The center of the red king crab distribution moved to within 20 nmi of the northeast side of St. Paul Island as the population abundance increased in the 1980's and remained in that region until the 1990s. Since then, the centers of distribution have been located closer to St. Paul Island with the exception of 2000-2003 which was located towards the northeast.

Pribilof District Blue King Crab

Blue king crab were caught at 6 of the 77 stations in the Pribilof District; 6 stations in the high-density sampling area and zero stations in the standard-density sampling area in 2012 (Fig. 27). Legal-sized males were caught at one station northeast of St. Paul Island with a density of 73 to 442 crab nmi^{-2} (Appendix, Fig. 27). The 2012 biomass estimate (± 95% CI) of legal-sized males was 459 ± 579 t (Tables 5 and 11) and abundance was 0.16 ± 0.22 million crab (Table 12), representing 57% of the total male abundance. The biomass estimate was well below the average of 1,545 ± 1,264 t for the previous 20 years (Table 11).

Blue king crab mature males were caught at 4 of the 77 stations in the Pribilof District; 3 stations in the high-density sampling area and zero stations in the standard-density sampling area and 100% of the nine mature males caught were measured (Table 5; Fig. 29). One station accounted for 79% of the mature males in the survey (Fig. 29). The mature male biomass estimate of 644 ± 928 t (Tables 5 and 11) represents 80% of the total male abundance with 165 ± 323 t of immature male blue king crab estimated in the Pribilof District (Tables 5 and 11, Figs. 27 and 28).

In 2012, crabs caught in the 85 to 125 mm CL size range were not observed in the past few surveys.
The 145 mm to 155 mm CL size class surveyed in 2010 was not observed as larger crabs in 2012 (Fig. 30). Eight legal-sized male blue king crab were captured on the 2012 survey in the Pribilof District; six new hardshell males and two oldshell male were caught east of St. Paul Island (Fig. 31).

Five mature female blue king crab were caught at different stations in the Pribilof District high-density sampling area which extrapolated to a biomass estimate of 106 ± 91 t (Table 11) and an abundance estimate of 0.1 ± 0.1 million crab (Table 12), and represents 46% of the total female biomass (Fig. 28). Immature female blue king crab were caught at one station northeast of St. Paul Island in the Pribilof District high-density sampling area with a biomass estimate of

122 ± 240 t (Tables 5 and 11; Fig. 28). Estimates of female biomass are imprecise due to the preference of these crab for rocky habitat which is difficult to sample with bottom trawls. Blue king crab females are predominantly biennial spawners with only a portion of the female population carrying eyed embryos in a given year, while the remainder is in a non-embryo-bearing phase (Somerton and MacIntosh 1985). Four of the five mature female blue king crab sampled in the Pribilof District were brooding uneyed embryos, while 10 immature females were in new hardshell condition and one crab had empty egg cases with an old shell (Fig. 32). The majority of mature females with embryos had 100% full clutches.

The centers of distribution for both males and female blue king crab are located within a 40 nmi by 40 nmi region east of St. Paul Island (Fig. 33). The center of the blue king crab distribution moved to within 20 nmi of the northeast side of St. Paul Island as the population abundance decreased in the 1980s before moving easterly the 1990s. Since then, the centers of distribution have been located at the northeastern edge of the distribution.

St. Matthew Island Section, Northern District Blue King Crab

The blue king crab fishery in the St. Matthew Island Section of the Northern District opened in 2009 after a 10-year rebuilding plan. Blue king crab were caught at 37 of the 56 total stations in the St. Matthew Island Section sampling strata; 12 stations in the high-density sampling area and 25 stations in the standard-density sampling area. The density of legal-sized males caught at a station ranged from 56 to 1,162 crab nmi^{-2} and were captured primarily south and west of St. Matthew Island (Appendix, Figs. 34 and 35). Eighty-five legal-sized male blue king crab were caught in 2012 with a biomass estimate (± 95% CI) of 3,312 ± 1,915 t (Tables 5 and 13) and abundance estimate (± 95% CI) of 1.8 ± 1.0 million crab (Table 14) representing 51% of the total male biomass which was still slightly above the average of 3,126 ± 1,660 t from the previous 20 years (Table 13).

Mature male blue king crab were caught at 35 of the 59 stations surveyed in the St. Matthew Island Section sampling strata and 100% of the 164 mature and 67 immature males caught were measured, respectively (Table 5, Fig. 36). One station accounted for 26% of the mature male biomass (Fig. 36). The mature male biomass estimate in 2012 was 5,652 ± 3,668 t, representing 86% of the total male biomass (Table 13), while the immature male biomass was estimated at 907 ± 777 t (Table 5). The majority of the immature male blue king crab were distributed in the shallow waters surrounding St. Matthew Island while a majority of the mature males were caught southwest of St. Matthew Island (Fig. 35 and 36).

The 2009 100 to 110 mm CL male blue king crab cohort grew to 115 mm to 120 mm CL in 2010 and 135-145 mm CL in 2011 with increasing oldshell and very oldshell condition classes (Fig. 37). In 2012, this cohort did not grow but did increase the number of old shells. In 2012, 64% of the legal-sized males were new hardshell crabs, with the majority distributed south of St. Matthew Island, followed by 32% old shell and 1% in soft and molting condition (Fig. 38).

The 2012 mature female blue king crab biomass estimate was 75 ± 64 t (Table 13) and abundance was 0.1± 0.1 million crab (Table 14), representing 59% of the total female biomass

(Table 13), and the immature female blue king crab biomass estimate was 52 ± 60 t (Tables 5 and 13). Mature females were caught at four stations and immature females were caught at three stations in the St. Matthew Island Section sampling strata (Fig. 35). Two mature female were in new hardshell condition with uneyed embryos, one had empty egg cases, and two mature females were barren. The remaining eight females were new hardshell and immature in the 50 to 75 mm CL size classes (Fig. 39). The clutches of the mature females with embryos were 75% full.

The centers of distribution for both male and female blue king crab are located within a 30 nmi by 30 nmi region around St. Matthew Island (Fig. 40). The center of the blue king crab distribution has randomly moved within this region without a clear pattern of years proximal to each other.

Tanner Crab

In 2011, the ADF&G Board of Fisheries changed the legal-size limit of Tanner crab from ≥ 5.5 inches CW (138 mm, without spines) to ≥ 4.4 inches CW (110 mm, without spines) west of 166°W and ≥ 4.8 inches CW (120 mm, without spines) east of 166°W (Table 1). According to the regulatory harvest strategy of the State of Alaska (5 AAC 35.508), the annual TAC or GHL for Tanner crab in the area east of 166°W is determined by the biomass estimate of males ≥ 138 mm CW while the Tanner crab GHL in the area west of 166°W is determined by the biomass estimate of males ≥ 125 mm CW. The harvest strategy is based on the assumption that the commercial fishery will target these size categories (Zheng and Pengilly 2011), although the industry may self-impose retention of crab ≥ 5.5 inches CW and 5.0 inches CW (125 mm, without spines) east and west of 166°W, respectively. In this document, we have provided the 2012 abundance and biomass estimates for the two legal-size categories as well as for Tanner crab ≥ 5.5 inches CW east of 166°W and ≥ 5.0 inches west of 166°W (Tables 5, 15 - 18).

Tanner crab were caught at 73 of the 121 stations east of 166°W and 172 of the 255 stations west of 166°W with Tanner crab occurring at 41 and 18 stations in the high-density areas of the Pribilof District and St. Matthew Island Section, respectively (Appendix, Fig. 41).

Legal-sized Tanner crab were caught at 39 of the 121 stations east of 166°W and 94 of the 255 stations west of 166°W with no one particular station dominating the catch (Table 5, Figs. 42 and 43). Eighty-two percent of the legal-sized males caught east of 166°W were measured while 94% of the legal-sized males caught west of 166°W were measured (Table 5). The 2012 biomass estimate (± 95% CI) for legal male Tanner crab east of 166°W was 10,734 ± 4,902 t (Tables 5 and 15) and abundance was 14.5 ± 6.4 million crab (Table 16) with 42% of those males ≥ 5.5 inches CW with a biomass estimate of 4,534 ± 2,534 t (4.5 ± 2.5 million crab). The 2012 biomass of legal Tanner crab in the eastern area was substantially below the 20-year average biomass of 17,475 ± 9,290 t. The majority of the Tanner males ≥ 113 mm CW east of 166°W were distributed in the southwest section of Bristol Bay (Fig. 43).

The 2012 biomass estimate for legal male Tanner crab west of 166 °W was 11,928 ± 3,618 t (Table 17) and abundance was 19.9 ± 5.9 million crab (Table 18) with 53% of those males

≥ 5.0 inches CW with a biomass estimate of 6,365 ± 2,405 t (8.3 ± 2.9 million crab). The 2012 biomass of legal Tanner crab in the western area was substantially below the 20-year average biomass of 15,169 ± 7,713 t. The majority of Tanner males ≥ 103 mm CW west of 166°W were distributed to the southwest of the Pribilof Islands while sublegal males were distributed throughout the EBS shelf (Fig. 43).

In 2012, a total of 1,032 male Tanner crab chela height and carapace width measurements were collected on the EBS bottom trawl survey and added to chela height data used in previous years. The scatterplot of the allometric relationship between chela height and carapace width (Fig. 44) using the data collected in 2008, 2010, and 2012 (n = 4,603) graphically represents two distinct maturity groups; immature, small claw males with a ratio of less than 0.18 and mature, large claw males with a ratio greater than or equal to 0.18. The carapace widths for small claw males ranged from 14.0 to 137.3 mm compared to 61.4 to 177.1 mm for large claw males. Large claw males with carapace widths below the legal-size limit will not recruit to the fishery in the future, as morphometrically mature male *Chionoecetes* spp. crab will not molt again during their lifespan (Tamone et al. 2007).

In the area east of 166 °W, the male cohort around 30 mm in 2010 and 40 mm in 2011 grew to approximately 60 mm in 2012 (Fig. 45). A second mode around 65 mm in 2011 grew to 85 mm in 2012 and combined with the 100-150 mm old shell crabs observed in previous years (Fig. 45). In the area west of 166 °W the same size cohort growing from 30 mm in 2010 to 60 mm in 2012 was found (Fig. 46). In both areas, the relative number of old and very old shell crabs were lower in 2012 than the previous 2 years, and remain distributed in the southwest section of the EBS shelf at depths greater than 100 m (Fig. 47).

The 2012 mature female Tanner crab biomass estimate east and west of 166°W was 4,004 ± 2,214 t and 5,456 ± 972 t (18.5 ± 11.1 and 15.5 ± 5.5 million crabs), respectively. The immature female Tanner crab biomass east and west of 166°W was 10,235 ± 8,599 t and 7,053 ± 2,509 t, respectively (Tables 5, 15 - 18). Forty-two percent of the mature female population was distributed east of 166 °W in the central and southwestern area of the Bristol Bay District, while the immature females were distributed throughout the EBS shelf between the 50 and 200 m isobaths (Fig. 43). In the eastern area, only 3% of the mature females were softshell, while 78% were new-hardshell and 18% were oldshell and very oldshell (Fig. 48). Similar percentages were found in the western area with 61% new-hardshell and 35% were oldshell and very oldshell (Fig. 49). In the eastern region 68% of the mature females carried newly extruded embryos while 3% were brooding eyed embryos, 1% had not produced a new clutch and 3% were barren (Fig. 48). However, in the western region more crab were recently molted with 75% of the mature females carried newly extruded embryos while 1% were brooding eyed embryos, 2% had not produced a new clutch and 3% were barren (Fig. 49). The majority of mature female had 75% full clutches in both areas.

The centers of distribution for both males and female Tanner crab have moved within a 160 nmi by 100 nmi region east of the Pribilof Islands and west of Bristol Bay (Fig. 50). The center of the distribution moved from the eastern extent of the distribution in the 1970s to the western extent

in more recent years. However, with extreme cold temperatures in the past few years the centers of distribution for both males and females have tended back toward the east.

Snow Crab

Although the legal minimum size limit for male snow crab is 3.1 inches CW (78 mm), processors currently prefer a minimum size of 4.0 inches CW (102 mm). The density of male snow crab is reported for both legal (≥ 3.1 in. CW) and preferred (≥ 4.0 in. CW) size categories and listed by station in the Appendix. The biomass and abundance estimates for male snow crab are reported for both legal and preferred size categories in this report (Tables 19 and 20).

Snow crab were caught at 273 of the 376 stations in the combined areas of the Bristol Bay District, Pribilof District, and St. Matthew Island Section sampling strata (Fig. 51). Snow crab occurred at 40 stations in the high-density area of the Pribilof District and 27 stations in the high-density area St. Matthew Island Section sampling strata (Appendix).

Legal-sized snow crab were caught at 231 of the 376 standard stations (Fig. 52) and 68% of the legal-sized males caught were measured (Table 5). Legal-sized male snow crab estimated biomass (± 95% CI) was 104,456 ± 24,269 t (Tables 5 and 19) and abundance was 274.1 ± 60.9 million crab (Table 20) which was 55% of the total male abundance. This biomass is lower than the 20-year average legal male snow crab biomass of 165,776 ± 39,868 t. Fifty-one percent of those legal males were ≥ 4.0 inches CW with a biomass estimate of 53,173 ± 15,618 t (87.0 ± 25.7 million crab), while the biomass estimate of sublegal males was 86,719 ± 22,815 t. These legal-sized male snow crab were distributed throughout the EBS shelf with higher concentrations around the Pribilof Islands (Figs. 52 and 53). Approximately 66% of all legal male snow crab were east of 173°W in the ADF&G eastern management district compared to 70% in 2010 and 89% in 2011.

In 2011, a total of 1,130 male snow crab chela height and carapace width measurements were collected on the EBS bottom trawl survey. The scatterplot of the allometric relationship between chela height and carapace width using the data collected in 2011 and in 2009 (n = 1,303) graphically represents two distinct maturity groups for snow crab; immature males (small claw) with a ratio of < 0.20 and mature males (large claw) with a ratio of ≥ 0.20 (Fig. 54). The carapace widths for small claw males ranged from 21.3 to 121.2 mm compared to 40.6 to 151.6 mm for large claw males.

A high number of pre-recruit new hardshell males that appeared in the 45 to 50 mm size category in 2010 and advanced into the 55 to 65 mm size category in 2011, were again observed with a mode at 60 mm on the 2012 survey (Fig. 55). Among legal-sized male crab, 14% were in molting or softshell condition while 47% were in new-hardshell condition indicating a recent molt and distributed between the 50 and 100 m isobaths in the middle shelf of the EBS survey area as well as between the 100 and 200 m isobaths in the northwest area of the EBS shelf (Fig. 56). Thirty-eight percent of the legal-sized males were oldshell and very oldshell condition crabs and primarily distributed in the southeastern section of the EBS shelf (Fig. 56).

The mature female snow crab biomass estimate of 193,144 ± 74,898 t (Table. 19) and abundance estimate of 2,104.3 ± 883.5 million crab (Table 20) was 73% of the total female biomass. The immature female crab biomass estimate was 71,837 ± 31,962 t (Tables 5 and 20). Among sampled mature females; 37% were in new-hardshell condition, 62% were oldshell and very oldshell condition. Seventy six percent of the mature females were brooding new embryos while < 1% had unhatched embryos. Seven percent of the mature females had not produced a new clutch and 1% were barren (Fig. 57). The majority of mature females with embryos were 75% full.

With the exception of 1975 to 1979, the centers of distribution for both males and female snow crab have moved within a 120 nmi by 120 nmi region between St. Matthew Island and the Pribilof Islands (Fig. 58). The center of snow crab distribution moved dramatically to the northwest after 1979. Since then, the centers of distribution have moved throughout the distribution with males having a broader distribution while females are located more to the north.

Chionoecetes bairdi/opilio hybrids

Chionoecetes spp. hybrids were caught at 157 of the 376 stations (Fig. 59) in the combined areas of the Bristol Bay, Pribilof, and Northern Districts. *Chionoecetes* hybrids occurred at 32 stations in the Pribilof District high-density sampling area, and 20 stations in the high-density sampling area of the St. Matthew Island Section of the Northern District (Appendix).

In this document, *C.* hybrid size classes for legal males and mature females are based on the size categories for snow crab (see Snow Crab section and Table 1). The biomass estimates for legal-sized male *C.* hybrids combines both the preferred and legal size categories. The density of legal-sized male *C.* hybrids are listed by station in the Appendix and are separated into preferred (≥ 4.0 in. CW) and legal (≥ 3.1 in. CW) size categories.

Legal-sized male *C.* hybrids were caught at 102 stations (Fig. 60), throughout all ADF&G districts combined, resulting in a biomass estimate (± 95% CI) of 12,053 ± 5,094 t and were primarily distributed northeast of the Pribilof Islands between 50 and 100 m (Fig. 60). This is an increase of over 200% between 2011 and 2012 in adult biomass and is the highest encountered in the survey time series. Thirty-seven percent of those legal males were ≥ 4 inches in carapace width, with a biomass estimate of 4,457 ± 1,487 t. The 2012 sublegal male *C.* hybrid crab biomass estimate for all ADF&G districts combined was 5,537 ± 3,149 t, were distributed throughout the northeastern Bering Sea shelf at depths greater than 50 m (Fig. 60).

The 2012 mature female *C.* hybrid crab biomass estimate was 3,907 ± 1,579 t and the immature female crab biomass estimate was 208 ± 149 t. The majority of the mature female hybrid crab were primarily distributed south of St. Matthew Island and between 100 and 200 m in the northwestern area of the eastern Bering Sea shelf (Fig. 60).

Other Crab Stocks and Species of Interest

Northern District Red King Crab

Red king crab were caught at 26 stations in the Northern District outside of the current management units where red king crab are commercially fished (Fig. 61). The 2012 biomass estimates were calculated using an area of 10,426 nmi^2 based on the number of stations with catches of red king crab in the Northern District. Legal-sized males were caught at 17 of those stations (Fig. 61). The density of legal-sized males caught at a station ranged from 77 to 175 crab nmi^{-2} (Appendix). The 2012 biomass estimate (± 95% CI) of legal-sized males was 1,871 ± 614 t while the biomass estimate of mature and immature males was 2,333 ± 687 and 357 ± 201 t, respectively. The biomass estimate of mature female red king crab was 741 ± 329 t while the biomass estimate of immature females was 8 ± 17 t. The majority of both legal males and mature female red king crab were caught in depths < 50 m at stations south and west of Nunivak Island (Fig. 61).

Northern District Blue King Crab

Blue king crab were caught at six stations (Fig. 62) not included in the blue king crab biomass estimates for the Pribilof District or the St. Matthew Island section sampling strata of the Northern District. Three mature males and one immature female were caught in the Northern District while one immature female was caught just east of the Pribilof management district (Appendix, Fig. 62).

Hair Crab

In 2012, a total of 599 hair crab were captured at 83 of the 376 stations (Fig. 63) throughout all districts combined on the EBS bottom trawl survey. Historically, hair crab have been concentrated just north of the Alaska Peninsula and near the Pribilof Islands. In recent years, the abundance of hair crab north of 58°N has been increasing, particularly west of Nunivak Island.

In this report, legal male hair crab are defined as > 3.25 inches CW (≥ 83 mm CL) which was specified in the previous Pribilof District fishery. The 2012 density of legal male hair crab caught at a station ranged from 64 to 2,285 crab nmi^{-2} resulting in a biomass estimate of 2,867 ± 1,122 t (Table 21) and abundance of 4.6 ± 1.8 (Table 22). The female hair crab biomass estimate is presented for all sizes combined. Legal male hair crab were primarily concentrated in the central Bristol Bay area, near St. Paul Island and distributed along the 50 m isobath near Nunivak Island (Fig. 63).

The 2012 pre-recruit male hair crab biomass estimate (± 95% CI) was 3,618 ± 1,514 t and the female hair crab biomass estimate was 612 ± 237 t (Table 21). A high number of pre-recruit males and females were caught west of Nunivak Island in the northeast section of the standard survey (Fig. 63). The density of both pre-recruit male and female hair crab has increased in these two areas over the last 4 years with an increasing number of females occurring west of Nunivak Island (Chilton et al. 2011b).

The Pribilof District hair crab fishery has been closed since 2000 due to a shift in the distribution of legal males to the Northern District and, after one year of experimental fishing with minimal vessel participation, the Northern District fishery was closed in 2001 (Bowers et al. 2010). Since 2005 the biomass estimates of both size classes of male hair crab have increased. The 2012 biomass estimate for legal-sized male hair crab was higher than the 20-year average of 1,796 ± 853 t (Table 21).

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Table 1. -- Definition of carapace size classes for crab species caught in National Marine Fisheries Service eastern Bering Sea standard survey. Carapace length (CL) is measured for *Paralithodes* spp. and *Erimacrus isenbeckii*, while carapace width (CW spines) is measured for *Chionoecetes* species.

	Immature	Mature	Legal male
Paralithodes camtschaticus			
Bristol Bay District			
males	<120 mm	≥ 120 mm	≥ 135 mm CL or ≥ 6.5 in. CW
females	<90 mm	≥ 90 mm	
Pribilof District			
males	<120 mm	≥ 120 mm	≥ 135 mm CL or ≥ 6.5 in. CW
females	< 90 mm	≥ 90 mm	
P. platypus			
Pribilof District			
males	<120 mm	≥ 120 mm	≥ 135 mm CL or ≥ 6.5 in. CW
females	< 100 mm	≥ 100 mm	
St. Matthew Island			
males	< 105 mm	≥ 105 mm	≥ 120 mm CL or ≥ 5.5 in. CW
females	< 80 mm	≥ 80 mm	
Chionoecetes bairdi			
East of 166° W			
males			≥ 120 mm or ≥ 4.8 in. CW[1]
females	< 85 mm	≥ 85 mm	
West of 166° W			
males			≥ 110 mm or ≥ 4.4 in. CW[1]
females	< 80 mm	≥ 80 mm	
Chionoecetes opilio		≥ 95 mm	≥ 78 mm or ≥ 3.1 in. CW[2]
	<50 mm	≥ 50 mm	≥ 50 mm
Erimacrus isenbeckii			
males			≥ 83 mm[3] CL or > 3.25 in. CW
females			

[1] The legal minimum size limit for *C. bairdi* is ≥ 4.8 inches CW (120 mm) east of 166° W and ≥ 4.4 inches CW (110 mm) west of 166° W (ADF&G reg. **5 AAC 35.520(b)(1)**).

[2] The legal minimum size limit for *C. opilio* is 3.1 inches CW (78 mm), although processors currently prefer a minimum size of 4.0 inches CW (102 mm).

[3] Legal-sized male crab for *E. isenbeckii* are larger than a minimum size of 3.25 inches CW (≥ 83 mm CL) defined by Alaska Department of Fish and Game permit guidelines.

Table 2. -- History of methods for determining trawl on bottom and estimating net width on National Marine Fisheries Service eastern Bering Sea bottom trawls.

Year	Net width (m)	Trawling methodology
1975		First and only year tow duration = 1 hour
1976-2012		Tow duration = 30 minutes
1975-1995		Brake set and haul back of winch drum wire defined trawl contact with seafloor (net on bottom)
1996-2012		Began using bottom contact sensors to determine trawl contact with seafloor
1975 - 1980	12.2	Mean width of 400-mesh eastern trawl*
1981	18.0	Mean width* of 83-112 eastern trawl for Vessel 1
1981	13.4 or 14.3	Mean width* of 400-mesh eastern trawl measurements different on haul 1-112 and 114-156 for Vessel 37*
1982 - 1987	Variable with each tow	Rose and Walters (1990) calculated the 83-112 net width based on an inverse relationship to net scope
1988 - 2001	Variable with each tow	All survey vessels used ScanMar acoustic sensors on the 83-112 trawl net
2001 - 2012	Variable with each tow	All survey vessels used NetMind acoustic sensors on the 83-112 trawl net

*Single value used for net width when calculating area swept.

Table 3. --Weight-size regression relationships used to calculate biomass of crab species caught in National Marine Fisheries Service eastern Bering Sea bottom trawl surveys.

Species	Number collected	*a*	*b*
Red king crab males	1086	0.000403	3.141334
Ovigerous red king crab	1010	0.003593	2.666076
Non-ovigerous RKC	201	0.000408	3.127956
Blue king crab males	409	0.000508	3.106409
Blue king crab females[1]	n/a	0.02065	2.2700
St. Matthew males	386	0.000502	3.107158
Tanner crab males	1030	0.00027	3.022134
Ovigerous Tanner crab	331	0.000441	2.898686
Non-ovigerous Tanner	487	0.000562	2.816928
Snow crab males	1107	0.000267	3.097253
Ovigerous snow crab	588	0.001158	2.827784
Non-ovigerous snow crab	344	0.001047	2.708367
Hair crab males[2]	703	0.00071731	3.02
Hair crab females[2]	178	0.00119453	2.86

[1] Unpublished data. Available from Kodiak Laboratory, Alaska Fisheries Science Center, 301 Research Court Kodiak AK 99615.

[2] Armetta and Stevens (1987).

Table 4. --Special projects related to crab species conducted on National Marine Fisheries Service eastern Bering Sea bottom trawl survey in 2012.

Project Title	Principle Investigator	Agency
Distribution of Bristol Bay red king crab in nearshore waters of the Alaska Peninsula	Bob Foy	RACE[1]-SAP[2]
Snow crab male maturity identification	Bob Foy	RACE[1]-SAP[2]
Pathological specimen voucher	Pam Jensen and Frank Morado	RACE[1]-SAP[2]
Bitter crab syndrome and population genetics of *Paralithodes* and *Chionoecetes* spp.	Frank Morado	RACE[1]-SAP[2]
Validation of preservation methods of reproductive tissue of *Chionoecetes* spp.	Laura Stichert	ADF&G[3]
Male snow crab reproductive biology	Sherry Tamone	UAS[4]
Population genetics of Tanner crabs	Sarah Hardy	UAF[5]

[1] Alaska Fisheries Science Center, Resource Assessment and Conservation Engineering Division, Seattle, Washington.
[2] AFSC, Resource Assessment and Conservation Engineering Division, Shellfish Assessment Program, Kodiak, Alaska.
[3] State of Alaska, Department of Fish and Game.
[4] University of Alaska Southeast.
[5] University of Alaska Fairbanks.

Table 5. --Summary of 2012 National Marine Fisheries Service eastern Bering Sea bottom trawl survey details for seven commercial crab stocks. Size categories are defined in Table 1.

		Number of tows in district	Tows with crab	Number of crab measured	Number of crab caught	Biomass (t)	CI (± 95%)
Bristol Bay District Red King Crab	Immature male	136	30	266	266	5,799	3,430
	Mature male	136	53	318	318	24,656	13,366
	Legal male	136	46	219	219	19,713	11,764
	Immature female	136	15	176	176	1,903	1,845
	Mature female	136	40	644	644	28,040	18,669
Pribilof Island District Red King Crab	Immature male	77	2	19	19	336	636
	Mature male	77	9	65	65	4,477	5,031
	Legal male	77	9	61	61	4,360	4,846
	Immature female	77	0	0	0	0	0
	Mature female	77	7	23	23	663	710
Pribilof Island District Blue King Crab	Immature male	77	1	9	9	165	323
	Mature male	77	4	13	13	644	928
	Legal male	77	4	8	8	459	579
	Immature female	77	1	10	10	122	240
	Mature female	77	5	5	5	106	91
St. Matthew Island Blue King Crab	Immature male	56	19	67	67	907	777
	Mature male	56	35	164	164	5,652	3,668
	Legal male	56	25	85	85	3,312	1,915
	Immature female	56	3	8	8	52	60
	Mature female	56	5	5	5	75	64
Tanner Crab east of 166°W	Immature male	121	67	2,228	5,727	30,889	21,120
	Mature male	121	44	586	787	14,649	6,797
	Legal male	121	39	412	502	10,734	4,902
	Immature female	121	61	1,503	3,512	10,235	8,599
	Mature female	121	42	417	635	4,004	2,214
Tanner Crab west of 166°W	Immature male	255	161	4,850	9,511	19,737	6,712
	Mature male	255	105	1,123	1,242	15,027	4,271
	Legal male	255	94	813	862	11,928	3,618
	Immature female	255	143	3,211	5,698	7,053	2,509
	Mature female	255	89	557	661	5,456	972
Snow Crab	Immature male	376	240	16,391	50,946	123,677	29,542
	Mature male	376	188	3,924	4,833	67,497	18,907
	Legal male	376	231	7,230	10,701	104,456	24,269
	Immature female	376	183	5,762	62,348	71,837	31,962
	Mature female	376	196	8,180	79,667	193,143	74,898

Table 6. --Time series of biomass estimates (t) for Bristol Bay District red king crab (*Paralithodes camtschaticus*) by size category (CL) and sex from the National Marine Fisheries Service eastern Bering Sea bottom trawl surveys. The 95% confidence intervals (CI) are 1.96 SE.

Length	Immature male < 120 mm	Mature male ≥ 120 mm	Mature male ± CI	Legal male ≥ 135 mm	Immature female < 90 mm	Mature female ≥ 90 mm	Mature female ± CI
1975	51,868	90,276	29,852	60,026	23,626	39,514	25,130
1976	77,658	114,833	29,855	71,170	20,778	61,012	35,817
1977	83,496	150,193	55,524	94,684	13,129	106,413	37,247
1978	52,941	143,700	65,068	96,358	10,809	104,669	40,494
1979	24,478	131,619	48,206	94,312	6,150	74,790	22,065
1980	37,194	122,361	60,234	98,940	12,765	52,526	30,132
1981	26,984	36,083	7,894	24,336	7,670	39,558	12,443
1982	49,074	22,220	8,345	9,838	22,193	37,106	14,474
1983	24,971	9,582	2,440	2,809	6,911	6,022	2,345
1984	64,784	14,117	7,164	6,830	38,569	9,665	7,828
1985	12,395	13,606	4,013	5,210	2,409	3,727	1,828
1986	11,975	27,390	26,390	12,678	1,804	4,021	2,268
1987	15,827	29,162	14,064	17,600	6,409	12,048	7,604
1988	9,018	24,679	8,806	18,296	584	14,313	11,744
1989	7,860	38,901	15,998	28,678	887	9,679	6,395
1990	5,676	29,435	10,316	22,490	2,589	13,559	11,135
1991	6,217	61,403	67,982	53,217	1,715	11,881	10,525
1992	6,562	17,838	6,651	13,393	787	8,547	4,250
1993	6,902	28,283	9,042	19,183	736	12,504	6,149
1994	3,479	19,240	6,588	13,023	577	6,491	2,791
1995	6,141	20,372	14,360	15,159	1,396	6,918	3,299
1996	8,749	17,631	7,148	14,682	4,444	9,706	5,373
1997	26,230	31,679	13,031	26,699	668	18,084	12,686
1998	12,608	32,386	10,211	18,906	1,533	27,643	13,942
1999	4,367	35,215	11,419	26,376	1,446	12,003	5,442
2000	7,971	29,950	6,511	21,180	2,008	15,930	8,610
2001	8,643	18,557	5,622	14,965	1,331	17,589	10,493
2002	11,695	32,469	12,371	24,588	4,952	14,664	7,910
2003	11,010	42,629	16,149	32,165	3,507	28,445	12,691
2004	19,417	39,676	12,686	33,470	4,634	24,260	11,459
2005	16,446	37,090	13,714	27,643	5,273	34,955	14,979
2006	12,733	36,953	15,679	29,273	4,263	24,696	4,995
2007	13,463	42,543	16,015	33,451	1,341	27,532	6,853
2008	14,166	39,411	11,195	28,013	983	35,764	19,492
2009	8,298	34,262	24,416	22,542	594	28,758	18,146
2010	5,641	30,248	9,246	21,346	386	40,797	21,869
2011	7,864	19,599	6,024	15,412	3,760	37,486	19,011
2012	5,799	24,656	13,366	19,713	1,903	28,040	18,669

Table 7. --Time series of abundance estimates (in millions) for Bristol Bay District red king crab (*Paralithodes camtschaticus*) by size category (CL) and sex from the National Marine Fisheries Service eastern Bering Sea bottom trawl surveys. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 120 mm	Mature male ≥ 120 mm	Mature male ± CI	Legal male ≥ 135 mm	Immature female < 90 mm	Mature female ≥ 90 mm	Mature female ± CI
1975	102.8	42.3	14.2	23.4	76.9	54.9	33.6
1976	117.2	55.6	15.2	28.2	53.5	84.1	43.8
1977	113.0	72.0	26.0	37.1	43.5	145.9	48.4
1978	89.5	67.9	30.7	38.5	44.5	144.6	54.2
1979	41.1	58.7	22.0	35.7	21.9	96.7	29.4
1980	71.2	50.1	24.6	35.8	46.5	74.9	48.4
1981	48.1	16.2	3.5	8.9	26.6	50.2	15.6
1982	109.2	11.8	4.8	3.9	72.9	50.6	21.3
1983	46.2	5.7	1.5	1.3	23.3	9.1	3.9
1984	145.5	7.7	3.8	3.1	109.5	17.1	14.7
1985	16.7	7.6	2.2	2.3	6.3	6.3	3.1
1986	15.1	14.7	14.5	5.5	5.2	6.3	3.6
1987	23.8	14.4	6.9	7.2	16.7	18.1	11.3
1988	11.0	11.2	3.9	7.3	1.6	20.6	17.3
1989	10.8	17.3	6.8	11.1	3.3	14.1	9.6
1990	9.1	12.6	4.2	8.3	7.5	16.8	13.8
1991	9.7	24.1	25.8	19.2	4.7	14.8	14.3
1992	8.3	7.4	2.9	4.6	2.0	10.4	5.0
1993	8.3	12.6	4.1	6.9	2.3	14.5	7.4
1994	7.0	8.5	2.9	4.8	3.3	6.5	2.8
1995	10.9	9.1	6.9	5.9	4.6	7.6	3.6
1996	17.4	7.1	2.8	5.2	12.9	11.1	6.1
1997	32.3	12.3	4.8	9.1	1.7	24.9	20.3
1998	16.7	15.3	5.0	6.7	5.2	32.5	17.9
1999	8.9	15.6	5.1	10.3	5.8	13.6	6.0
2000	12.6	13.6	3.1	8.2	5.3	17.6	9.1
2001	11.9	7.3	2.2	5.1	3.8	21.2	13.0
2002	22.8	13.5	5.2	8.6	17.0	17.3	9.8
2003	18.6	18.0	6.5	11.6	9.8	31.5	14.4
2004	34.6	15.5	4.8	11.5	16.9	28.2	12.5
2005	31.3	15.5	5.4	9.6	18.2	40.6	19.0
2006	22.9	15.8	6.4	11.1	13.1	28.1	5.9
2007	17.3	17.7	6.3	12.2	3.4	32.3	7.9
2008	16.5	16.9	4.6	9.8	2.5	40.1	20.2
2009	9.1	15.7	11.0	8.5	1.5	30.1	17.3
2010	6.5	13.5	4.0	8.0	1.0	31.5	17.4
2011	37.2	8.1	2.3	5.6	33.4	28.5	14.6
2012	7.9	9.6	4.8	6.7	6.0	21.1	15.0

Table 8. -- Average bottom water temperatures collected at stations with mature female Bristol Bay red king crab (*Paralithodes camtschaticus*) on the National Marine Fisheries Service eastern Bering Sea bottom trawl survey and the ratio of eyed to uneyed embryos in mature red king crab females with the warm years highlighted in gray. Bristol Bay stations were sampled twice during the cold years. An * indicates statistical significance within the year using a two sample t-test, alpha = 0.95 and $P < 0.001$.

Sample event	Average bottom temperature (°C)	Standard deviation (n = stations)	Two sample t-test values	Eyed to uneyed embryo ratio
May 1999	0.1	0.8 (41)	t = -11.9	6.54
July 1999	2.5*	0.8 (31)		0.02
May 2000	1.7	0.5 (49)	t = -9.2	1.45
July 2000	4.6*	1.6 (23)		0.01
June 2001	3.5	0.3 (40)		0.01
June 2002	3.4	0.6 (52)		0.06
June 2003	4.2	0.4 (51)		0.01
June 2004	3.9	0.5 (61)		0.03
June 2005	4.3	0.5 (49)		0.01
June 2006	2.2	0.7 (69)	t = -12.5	0.59
July 2006	4.2*	0.8 (30)		0.01
June 2007	1.8	0.9 (68)	t = -7.4	0.86
July 2007	3.4*	1.0 (32)		0.01
June 2008	1.4	0.7 (76)	t = -9.5	0.45
July 2008	3.6*	1.1 (32)		0.00
June 2009	1.5	1.6 (73)	t = -8.6	0.42
July 2009	4.5*	1.5 (32)		0.00
June 2010	2.0	0.9 (40)	t = -10.9	0.64
July 2010	4.8*	1.0 (23)		0.03
June 2011	2.9	0.8 (46)	t = -8.6	0.80
July 2011	5.9*	1.1 (20)		0.06
June 2012	0.9	1.2 (40)	t = -8.4	0.91
July 2012	4.0*	1.3 (15)		0.00

Table 9. -- Time series of biomass estimates (t) for Pribilof District red king crab (*Paralithodes camtschaticus*) by size category (CL) and sex from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 120 mm	Mature male ≥ 120 mm	Mature male ± CI	Legal male ≥ 135 mm	Immature female < 90 mm	Mature female ≥ 90 mm	Mature female ± CI
1975	0	0	0	0	10	0	0
1976	0	162	318	162	0	80	118
1977	137	116	227	0	15	104	204
1978	0	1,228	1,986	1,228	0	42	82
1979	0	859	661	790	0	76	108
1980	5	1,312	1,354	1,312	0	195	247
1981	0	299	343	299	0	97	148
1982	18	1,440	1,970	1,440	0	673	1,007
1983	26	518	542	486	0	216	205
1984	0	261	283	233	0	67	75
1985	0	60	118	60	0	0	0
1986	0	135	185	135	0	57	111
1987	0	53	103	53	0	25	49
1988	693	104	204	43	312	420	718
1989	656	1,498	2,671	854	405	1,442	1,961
1990	5,918	897	1,632	109	21	1,754	2,375
1991	624	4,335	6,765	1,295	70	3,790	4,468
1992	266	3,238	3,785	2,479	22	2,591	4,658
1993	276	9,687	17,497	9,017	9	4,829	6,789
1994	548	9,052	13,170	7,994	3	3,393	5,024
1995	572	24,282	20,572	22,428	28	6,171	6,180
1996	66	2,323	1,692	2,292	0	1,456	2,117
1997	1,472	6,056	7,393	5,843	6	1,436	1,597
1998	406	2,282	1,610	1,749	3	1,259	1,885
1999	3,260	5,422	7,092	4,394	2,510	2,252	3,258
2000	153	4,239	3,104	3,773	8	727	891
2001	2,280	8,434	12,995	5,663	0	4,333	8,450
2002	8	6,916	9,299	6,894	0	571	576
2003	0	5,280	6,807	5,184	2	1,642	2,922
2004	146	3,563	4,114	3,563	139	844	881
2005	53	1,219	1,398	1,219	0	2,207	3,393
2006	97	6,762	4,735	6,484	0	1,406	1,690
2007	201	7,176	5,489	6,947	7	2,527	2,563
2008	324	5,375	5,335	5,022	22	2,076	2,827
2009	43	2,454	3,066	2,088	0	546	590
2010	30	3,107	2,336	2,881	0	468	379
2011	44	3,834	4,872	3,751	3	814	1,165
2012	336	4,477	5,031	4,360	0	663	710

Table 10. -- Time series of abundance estimates (in millions) for Pribilof District red king crab (*Paralithodes camtschaticus*) by size category (CL) and sex from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 120 mm	Mature male ≥ 120 mm	Mature male ± CI	Legal male ≥ 135 mm	Immature female < 90 mm	Mature female ≥ 90 mm	Mature female ± CI
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976	0.0	0.1	0.1	0.1	0.0	0.1	0.1
1977	0.2	0.1	0.1	0.0	0.0	0.2	0.3
1978	0.0	0.4	0.6	0.4	0.0	0.1	0.1
1979	0.0	0.3	0.2	0.2	0.0	0.1	0.1
1980	0.0	0.4	0.4	0.4	0.0	0.2	0.2
1981	0.0	0.1	0.1	0.1	0.0	0.1	0.1
1982	0.0	0.3	0.4	0.3	0.0	0.5	0.7
1983	0.0	0.1	0.1	0.1	0.0	0.2	0.1
1984	0.0	0.1	0.1	0.0	0.0	0.0	0.1
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	0.1	0.0	0.0	0.0	0.1
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.1
1988	1.9	0.1	0.1	0.0	1.6	0.4	0.8
1989	1.1	0.8	1.4	0.4	1.0	2.0	2.6
1990	5.7	0.6	1.1	0.0	0.1	2.4	3.2
1991	0.7	2.4	3.8	0.6	0.3	4.3	5.1
1992	0.4	1.5	1.8	1.0	0.1	2.8	5.2
1993	0.3	3.5	6.4	3.1	0.0	4.5	6.4
1994	0.6	3.1	4.6	2.5	0.0	3.2	4.5
1995	0.6	7.1	5.9	6.0	0.1	5.3	5.2
1996	0.1	0.6	0.4	0.5	0.0	1.1	1.6
1997	1.6	1.6	1.7	1.4	0.0	1.3	1.4
1998	0.4	0.8	0.6	0.4	0.0	1.1	1.6
1999	7.2	1.9	2.2	1.3	6.9	3.4	5.7
2000	0.1	1.5	1.2	1.3	0.0	0.7	0.8
2001	2.5	3.7	6.1	1.9	0.0	4.4	8.6
2002	0.0	1.9	2.5	1.9	0.0	0.4	0.4
2003	0.0	1.5	2.0	1.4	0.0	1.2	2.1
2004	1.4	0.8	0.9	0.8	1.1	0.5	0.6
2005	0.1	0.2	0.3	0.2	0.0	1.3	2.0
2006	0.1	1.4	1.0	1.2	0.0	0.9	1.0
2007	0.2	1.6	1.4	1.5	0.0	1.7	1.7
2008	0.4	1.3	1.2	1.1	0.1	1.7	2.4
2009	0.0	0.9	1.2	0.7	0.0	0.3	0.3
2010	0.0	0.9	0.7	0.8	0.0	0.3	0.2
2011	0.0	1.0	1.3	1.0	0.0	0.5	0.6
2012	0.4	1.2	1.5	1.2	0.0	0.4	0.5

Table 11. -- Time series of biomass estimates (t) for blue king crab (*Paralithodes platypus*) by size category (CL) and sex in the Pribilof District from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 120 mm	Mature male ≥ 120 mm	Mature male ± CI	Legal male ≥ 135 mm	Immature female < 100 mm	Mature female ≥ 100 mm	Mature female ± CI
1975	7,342	34,051	33,248	24,267	1,254	10,912	14,772
1976	3,761	9,543	7,723	8,595	3,178	2,594	4,126
1977	3,382	38,756	58,267	36,706	2,313	11,259	19,765
1978	2,518	15,798	17,245	12,291	321	6,171	8,918
1979	1,320	13,261	6,655	11,198	1,296	2,843	2,706
1980	1,593	14,782	9,167	12,418	679	62,997	111,482
1981	2,218	10,675	3,524	9,617	1,624	8,298	7,358
1982	1,049	6,584	2,450	6,185	613	8,763	11,923
1983	876	4,867	1,708	4,069	384	9,864	15,159
1984	99	1,615	779	1,342	44	2,536	1,922
1985	36	959	501	687	3	520	457
1986	3	1,368	812	1,340	11	2,383	4,271
1987	175	2,659	2,144	2,529	128	785	908
1988	154	766	794	766	219	478	459
1989	1,162	752	940	752	1,032	714	658
1990	2,075	3,121	2,706	1,411	1,582	2,224	1,701
1991	1,254	4,203	3,221	3,025	660	2,119	1,651
1992	1,655	3,982	3,308	2,790	1,106	1,543	1,400
1993	991	4,072	2,491	2,841	455	1,636	1,465
1994	550	3,028	2,051	2,491	334	4,524	3,969
1995	863	7,696	8,198	6,307	362	4,482	3,835
1996	643	4,221	2,223	3,522	166	5,418	5,356
1997	347	2,940	1,591	2,515	189	2,840	2,390
1998	630	2,453	1,230	2,191	420	1,761	1,588
1999	146	1,476	1,020	1,201	113	2,755	2,480
2000	103	1,902	1,103	1,588	23	1,439	1,304
2001	79	1,454	2,093	1,329	0	1,816	2,571
2002	0	618	613	588	0	1,401	2,129
2003	17	638	501	610	21	1,286	1,880
2004	33	97	111	44	3	118	120
2005	297	313	435	313	477	370	413
2006	68	137	163	115	30	522	732
2007	163	254	397	170	41	216	350
2008	193	42	82	42	178	493	637
2009	232	452	632	170	30	595	979
2010	97	322	290	202	81	352	428
2011	0	461	763	399	15	22	43
2012	165	644	928	459	122	106	91

Table 12. -- Time series of abundance estimates (in millions) by size category (CL) and sex for blue king crab (*Paralithodes platypus*) in the Pribilof District from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 120 mm	Mature male ≥ 120 mm	Mature male ± CI	Legal male ≥ 135 mm	Immature female < 100 mm	Mature female ≥ 100 mm	Mature female ± CI
1975	8.2	15.0	14.7	8.9	2.1	10.8	14.5
1976	5.0	3.5	2.9	3.0	5.0	3.1	5.1
1977	4.2	13.0	19.0	11.8	4.1	10.7	18.6
1978	2.4	6.1	5.9	3.9	0.5	5.5	7.4
1979	4.4	5.3	2.7	4.0	4.6	2.6	2.5
1980	2.4	5.6	3.8	4.2	1.2	55.0	95.7
1981	4.6	3.9	1.3	3.3	3.9	7.2	6.2
1982	1.4	2.3	0.8	2.0	1.2	7.6	9.9
1983	1.0	1.8	0.7	1.3	0.7	9.1	13.7
1984	0.4	0.6	0.3	0.5	0.3	2.3	1.7
1985	0.1	0.4	0.2	0.3	0.1	0.5	0.4
1986	0.0	0.5	0.3	0.5	0.0	2.1	3.7
1987	0.6	0.9	0.7	0.8	0.4	0.7	0.8
1988	1.2	0.2	0.2	0.2	0.9	0.4	0.4
1989	3.5	0.2	0.3	0.2	3.0	0.8	0.8
1990	2.9	1.7	1.5	0.6	3.1	2.3	1.7
1991	1.9	2.0	1.4	1.2	1.3	2.2	1.7
1992	2.4	1.9	1.6	1.2	2.3	1.7	1.5
1993	1.5	1.8	1.1	1.1	0.9	1.8	1.5
1994	0.6	1.3	0.8	0.9	0.5	4.6	4.0
1995	1.1	3.1	3.3	2.2	0.7	4.5	3.9
1996	0.7	1.7	0.9	1.3	0.3	5.0	4.8
1997	0.5	1.2	0.7	0.9	0.3	2.6	2.2
1998	0.9	0.9	0.5	0.8	0.7	1.6	1.5
1999	0.2	0.6	0.4	0.4	0.2	2.6	2.4
2000	0.2	0.7	0.4	0.5	0.0	1.3	1.2
2001	0.1	0.5	0.7	0.4	0.0	1.7	2.5
2002	0.0	0.2	0.2	0.2	0.0	1.2	1.9
2003	0.0	0.2	0.2	0.2	0.1	1.1	1.7
2004	0.1	0.0	0.1	0.0	0.1	0.1	0.1
2005	2.0	0.1	0.1	0.1	2.3	0.3	0.3
2006	0.1	0.1	0.1	0.0	0.1	0.4	0.6
2007	0.2	0.1	0.2	0.0	0.1	0.2	0.3
2008	0.2	0.0	0.0	0.0	0.3	0.5	0.7
2009	0.3	0.2	0.4	0.1	0.1	0.5	0.9
2010	0.1	0.1	0.1	0.1	0.1	0.3	0.4
2011	0.0	0.2	0.3	0.1	0.0	0.0	0.0
2012	0.2	0.3	0.4	0.2	0.2	0.1	0.1

Table 13. -- Time series of biomass estimates (t) for blue king crab (*Paralithodes platypus*) by size category (CL) and sex in the St. Matthew Island Section sampling stratum of the Northern District from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 105 mm	Mature male ≥ 105 mm	Mature male ± CI	Legal male ≥ 120 mm	Immature female < 80 mm	Mature female ≥ 80 mm	Mature female ± CI
1978	2,669	5,387	4,125	3,004	279	143	140
1979	2,560	5,835	4,472	3,500	206	1,025	1,662
1980	2,270	7,586	7,052	4,945	245	938	1,611
1981	470	5,821	4,609	4,483	39	125	109
1982	1,612	13,947	8,641	11,280	131	296	471
1983	1,054	8,129	4,496	6,382	34	1,645	2,194
1984	463	3,486	1,289	2,946	32	228	305
1985	362	2,608	1,109	2,223	39	95	93
1986	227	1,170	891	668	78	34	66
1987	441	1,842	1,029	1,174	156	84	73
1988	625	2,582	1,226	1,722	291	443	414
1989	2,701	4,388	2,152	3,137	684	1,041	830
1990	1,003	5,423	2,809	4,314	206	143	167
1991	1,467	5,559	2,666	3,754	339	454	724
1992	1,116	5,737	2,296	4,223	298	198	262
1993	1,876	7,692	2,451	5,729	447	1,798	3,279
1994	820	5,305	1,830	3,886	30	197	155
1995	929	4,465	1,512	3,160	139	64	54
1996	1,152	7,762	3,662	5,700	310	487	778
1997	1,199	9,137	5,899	6,723	196	498	767
1998	802	6,828	4,803	5,025	172	280	272
1999	242	1,302	465	1,067	83	24	34
2000	281	1,721	1,041	1,407	15	75	66
2001	432	2,297	1,147	1,776	99	89	100
2002	106	1,502	948	1,258	1	89	120
2003	482	1,126	697	841	68	365	467
2004	394	1,227	689	1,044	143	117	110
2005	400	1,276	901	932	42	103	113
2006	937	2,946	2,064	2,254	36	123	115
2007	2,339	4,153	2,829	2,028	214	81	80
2008	1,757	3,335	1,879	2,471	152	103	129
2009	1,689	4,622	2,390	2,351	208	202	178
2010	3,974	8,141	5,955	4,317	206	362	672
2011	1,699	9,516	10,167	5,701	104	51	52
2012	907	5,652	3,668	3,312	52	75	64

Table 14. -- Time series of abundance estimates (in millions) for blue king crab (*Paralithodes platypus*) by size category (CL) and sex in the St. Matthew Island Section sampling stratum of the Northern District from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 105 mm	Mature male ≥ 105 mm	Mature male ± CI	Legal male ≥ 120 mm	Immature female < 80 mm	Mature female ≥ 80 mm	Mature female ± CI
1978	5.3	4.0	3.3	1.8	0.8	0.3	0.3
1979	4.5	4.4	3.5	2.2	0.6	1.7	2.8
1980	4.3	5.3	5.4	2.9	0.8	1.6	2.8
1981	0.9	3.6	2.6	2.3	0.1	0.2	0.2
1982	3.1	8.5	5.6	6.0	0.4	0.5	0.8
1983	2.1	5.0	2.9	3.4	0.3	2.7	3.5
1984	1.3	2.0	0.7	1.5	0.2	0.4	0.5
1985	0.7	1.5	0.7	1.1	0.2	0.2	0.2
1986	0.6	0.8	0.7	0.4	0.3	0.1	0.1
1987	1.0	1.3	0.8	0.7	0.5	0.2	0.1
1988	1.5	1.8	0.9	1.0	0.9	0.9	0.8
1989	6.2	3.0	1.5	1.8	2.2	2.0	1.6
1990	1.9	3.4	1.8	2.3	0.6	0.3	0.3
1991	3.3	3.9	1.9	2.2	1.0	0.8	1.3
1992	2.2	3.7	1.5	2.3	0.9	0.4	0.5
1993	4.2	5.1	1.7	3.3	1.2	2.7	4.9
1994	1.4	3.6	1.3	2.3	0.1	0.3	0.3
1995	1.7	2.9	1.0	1.7	0.5	0.1	0.1
1996	2.4	5.0	2.5	3.1	1.0	0.8	1.2
1997	2.3	6.0	4.2	3.8	0.6	0.8	1.2
1998	2.1	4.5	3.4	2.8	0.5	0.5	0.4
1999	0.5	0.8	0.3	0.6	0.3	0.0	0.1
2000	0.5	1.0	0.6	0.7	0.1	0.1	0.1
2001	0.8	1.4	0.7	0.9	0.3	0.2	0.2
2002	0.2	0.9	0.5	0.6	0.0	0.1	0.2
2003	1.2	0.7	0.5	0.5	0.2	0.6	0.8
2004	0.9	0.7	0.5	0.6	0.4	0.2	0.2
2005	0.9	0.8	0.6	0.5	0.1	0.2	0.2
2006	1.8	1.9	1.4	1.2	0.1	0.2	0.2
2007	4.5	3.2	2.3	1.2	0.8	0.2	0.2
2008	3.8	2.3	1.3	1.5	0.6	0.2	0.3
2009	3.4	3.6	2.0	1.4	0.6	0.4	0.3
2010	6.2	5.7	4.6	2.5	0.6	0.8	1.4
2011	2.6	6.5	7.2	3.2	0.3	0.1	0.1
2012	1.6	3.8	2.6	1.8	0.2	0.1	0.1

Table 15. -- Time series of biomass estimates (t) for Tanner crab (*Chionoecetes bairdi*) by size category (CW) and sex from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys, east of 166° W. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 113 mm	Mature male ≥ 113 mm	Mature male ± CI	Legal male ≥ 120 mm	Immature female < 85 mm	Mature female ≥ 85 mm	Mature female ± CI
1975	36,470	182,962	178,986	174,004	20,781	29,224	11,173
1976	22,364	103,826	27,195	97,166	12,953	55,558	16,852
1977	23,421	85,373	25,900	78,490	13,601	47,898	30,259
1978	11,128	63,680	18,878	58,229	6,223	25,751	14,471
1979	3,897	27,760	7,713	26,134	3,272	6,795	3,212
1980	8,271	41,545	25,844	38,041	4,131	18,268	13,018
1981	4,507	18,159	7,283	15,748	3,031	11,689	6,002
1982	5,416	11,174	3,961	9,509	2,506	11,692	5,364
1983	3,261	10,285	4,820	8,806	2,359	7,148	3,712
1984	1,999	11,333	3,376	10,194	1,295	6,301	4,009
1985	1,720	6,677	3,098	6,146	801	4,714	3,943
1986	4,842	5,384	3,191	4,286	3,313	3,681	1,793
1987	17,684	11,326	4,675	10,033	18,397	10,855	6,155
1988	24,407	31,965	29,716	22,929	10,298	29,619	17,339
1989	37,420	66,357	21,162	54,096	25,787	22,228	6,857
1990	23,905	58,652	20,725	53,184	24,040	22,635	10,978
1991	25,674	63,636	40,678	54,786	20,447	35,255	19,440
1992	15,684	76,423	48,676	68,294	5,020	14,846	7,175
1993	8,330	46,589	18,006	41,993	2,599	6,864	2,924
1994	3,230	29,865	10,034	27,285	2,750	6,525	3,633
1995	1,982	18,103	8,558	16,731	3,265	7,115	4,508
1996	3,381	16,849	10,867	15,867	4,737	6,910	4,645
1997	3,335	6,006	2,075	5,236	3,200	2,327	971
1998	3,168	5,410	1,623	4,421	1,873	1,364	564
1999	8,347	6,461	3,051	4,590	3,267	2,737	2,170
2000	5,216	11,386	7,017	9,150	2,866	3,456	2,627
2001	5,598	10,717	4,627	9,289	5,965	1,616	839
2002	4,298	10,287	4,570	9,253	5,143	1,322	655
2003	6,206	11,150	5,092	9,424	2,903	2,078	964
2004	3,385	9,182	5,233	7,951	886	1,053	425
2005	5,213	12,412	5,336	10,563	5,317	2,747	1,857
2006	14,970	13,627	5,585	11,067	6,139	5,707	4,445
2007	12,252	16,310	8,947	12,271	3,713	7,331	6,411
2008	9,340	23,387	10,912	19,346	3,478	4,902	2,640
2009	4,049	11,545	4,737	9,512	3,268	4,393	3,765
2010	3,871	11,509	5,463	9,752	1,246	1,613	1,509
2011	11,962	11,952	6,325	10,207	4,939	1,727	1,006
2012	30,889	14,650	6,797	10,734	10,235	4,004	2,214

Table 16. -- Time series of abundance estimates (in millions) for Tanner crab (*Chionoecetes bairdi*) by size category (CW) and sex from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys, east of 166° W. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 113 mm	Mature male ≥ 113 mm	Mature male ± CI	Legal male ≥ 120 mm	Immature female < 85 mm	Mature female ≥ 85 mm	Mature female ± CI
1975	198.8	200.0	175.1	181.0	106.8	72.7	26.7
1976	127.4	122.3	31.3	108.3	84.4	132.6	40.3
1977	99.8	102.7	29.8	88.2	59.9	116.9	73.4
1978	46.4	78.8	22.6	67.3	29.4	63.4	37.2
1979	47.0	33.1	8.9	29.7	41.1	16.4	7.7
1980	39.9	50.2	30.4	42.8	21.7	43.8	31.3
1981	28.4	25.0	10.5	20.0	20.9	29.0	15.3
1982	27.8	16.0	5.9	12.5	15.7	29.3	13.6
1983	38.6	15.2	7.1	12.1	32.1	16.3	8.4
1984	20.1	14.7	4.2	12.3	14.6	13.7	8.4
1985	11.9	8.5	3.7	7.4	6.0	10.2	7.9
1986	57.2	7.6	3.8	5.3	45.5	8.8	4.0
1987	145.3	15.7	5.8	12.9	118.7	29.5	17.6
1988	131.4	48.4	41.1	29.4	69.2	70.2	40.9
1989	302.6	97.2	30.3	71.2	254.3	55.0	16.7
1990	181.2	72.4	23.9	61.0	168.3	55.4	26.6
1991	125.8	87.7	60.5	69.2	105.3	86.9	49.1
1992	56.4	105.7	67.0	88.5	24.1	35.4	16.9
1993	31.9	63.9	25.1	54.3	13.2	16.1	6.8
1994	12.9	39.4	13.4	34.0	13.6	15.7	9.0
1995	13.0	24.0	11.0	21.1	19.7	17.6	11.3
1996	29.7	21.6	13.7	19.6	30.1	17.3	11.5
1997	39.8	7.9	2.6	6.3	42.5	6.0	2.5
1998	25.3	7.9	2.4	5.8	17.1	3.5	1.5
1999	49.6	10.0	4.7	6.1	25.7	7.4	5.8
2000	31.8	16.8	10.0	12.1	21.0	8.6	6.5
2001	115.2	14.5	5.6	11.5	110.6	4.3	2.1
2002	48.6	13.1	5.3	10.9	45.5	3.4	1.7
2003	42.7	14.8	5.8	11.2	21.0	5.3	2.4
2004	18.2	12.3	5.3	9.7	9.9	2.5	1.0
2005	41.6	17.4	6.4	13.5	46.7	7.0	4.7
2006	86.9	19.8	7.6	14.4	40.4	15.2	12.2
2007	58.9	25.0	13.0	16.4	27.2	18.2	15.1
2008	40.2	33.5	13.8	25.0	19.8	12.9	7.0
2009	38.6	16.5	5.9	12.3	38.5	11.0	9.0
2010	47.4	16.4	7.4	12.7	44.3	6.8	6.1
2011	139.1	16.5	7.5	12.8	98.8	7.8	4.4
2012	168.6	23.0	10.7	14.5	100.8	18.5	11.1

Table 17. -- Time series of biomass estimates (t) for Tanner crab (*Chionoecetes bairdi*) by size category (CW) and sex from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys, west of 166° W. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 103 mm	Mature male ≥ 103 mm	Mature male ± CI	Legal male ≥ 110 mm	Immature female < 80 mm	Mature female ≥ 80 mm	Mature female ± CI
1975	5,795	76,943	55,207	74,419	3,583	22,340	15,986
1976	5,952	49,117	19,776	47,276	7,591	16,595	12,410
1977	10,408	41,561	22,318	40,254	29,549	21,949	7,746
1978	11,996	13,989	6,649	12,851	17,662	15,112	4,998
1979	13,693	19,713	5,864	17,142	16,062	28,398	10,937
1980	63,270	39,360	13,201	28,633	76,198	100,494	19,195
1981	34,733	28,350	8,189	19,037	39,467	58,732	13,799
1982	14,664	35,066	12,970	25,998	62,460	92,704	17,934
1983	7,674	17,209	6,637	13,430	15,422	27,310	7,392
1984	5,648	12,661	4,796	10,056	9,546	18,434	6,682
1985	2,495	4,210	1,467	3,230	3,319	4,858	1,635
1986	6,177	5,846	4,167	3,353	2,601	3,466	1,434
1987	7,919	8,771	4,047	7,142	6,480	6,135	1,402
1988	18,909	22,199	12,805	18,235	14,229	15,244	6,333
1989	15,788	29,782	13,083	25,497	12,638	16,308	4,521
1990	15,704	40,385	19,188	36,030	12,985	31,766	20,848
1991	17,700	38,813	14,113	34,951	17,066	30,239	8,528
1992	12,254	27,907	12,237	24,822	12,566	28,648	9,195
1993	7,145	12,887	5,014	11,097	5,942	11,251	2,856
1994	5,104	11,859	4,024	10,351	4,642	8,727	3,435
1995	3,750	13,403	7,360	12,161	5,464	13,633	5,342
1996	2,902	8,002	6,287	6,814	3,186	7,182	4,188
1997	1,960	3,633	1,205	2,926	1,615	2,724	1,177
1998	2,975	3,618	1,248	2,650	3,241	2,437	828
1999	4,311	2,345	974	1,709	4,348	3,457	1,048
2000	3,997	2,815	858	2,029	3,872	2,571	958
2001	7,971	5,001	2,110	4,020	9,326	7,246	2,683
2002	8,496	4,384	1,623	3,087	9,372	5,394	1,368
2003	12,268	8,267	3,857	6,547	14,291	10,896	2,221
2004	12,809	13,593	7,103	9,896	11,015	6,528	1,386
2005	18,588	27,877	10,733	24,158	23,549	16,511	4,278
2006	33,025	41,618	18,696	35,464	29,041	28,795	5,449
2007	36,383	47,741	27,327	37,785	14,553	15,739	2,967
2008	15,566	32,589	17,699	26,871	8,995	13,823	3,867
2009	9,558	23,406	9,319	20,175	6,860	8,282	2,192
2010	8,108	20,506	7,567	17,783	3,998	3,877	1,065
2011	13,198	26,124	17,353	23,259	6,556	5,125	842
2012	19,737	15,027	4,271	11,928	7,053	5,456	972

Table 18. -- Time series of abundance estimates (in millions) for Tanner crab (*Chionoecetes bairdi*) by size category (CW) and sex from National Marine Fisheries Service eastern Bering Sea bottom trawl surveys, west of 166° W. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 103 mm	Mature male ≥ 103 mm	Mature male ± CI	Legal male ≥ 110 mm	Immature female < 80 mm	Mature female ≥ 80 mm	Mature female ± CI
1975	34.4	104.5	69.6	97.3	20.2	52.6	41.6
1976	97.4	62.8	23.8	57.6	104.8	39.1	36.1
1977	169	49.2	22.4	45.6	274.0	36.0	24.1
1978	153.6	19.4	8.7	16.3	172.9	29.6	16.0
1979	109.7	33.2	9.8	26.1	93.2	51.8	35.0
1980	479.1	77.8	26.1	48.0	414.8	125.7	61.2
1981	186.2	59.6	17	33.5	207.0	91.0	47.1
1982	74.2	71.3	26.2	46.0	321.1	127.5	58.0
1983	108	34.6	13.5	24.0	156.6	49.8	23.4
1984	64.9	25.5	9.6	18.2	88.0	38.6	21.3
1985	28.6	8.4	2.9	5.7	30.5	9.1	5.2
1986	49.4	13.5	10.5	6.5	25.4	7.1	4.2
1987	91.2	16.2	6.6	11.6	76.8	11.3	4.5
1988	197.2	39.8	21.1	28.8	137.1	30.2	19.8
1989	157.1	50.3	19.5	38.4	113.9	31.9	13.5
1990	129.5	65.6	29.3	53.4	102.0	69.0	57.2
1991	162.8	65.2	22.4	54.3	133.9	59.4	25.3
1992	111.6	45.3	15.8	36.7	96.5	61.2	28.5
1993	58.1	23.4	8.4	18.4	46.0	23.0	9.0
1994	47.3	21.1	6.7	16.9	45.6	19.4	10.4
1995	33.6	23.5	12.7	20.1	39.4	28.7	16.0
1996	24.3	15	11.1	11.7	26.2	15.0	12.9
1997	24.6	7.3	2.3	5.3	26.0	5.6	3.5
1998	49.1	7.4	2.5	4.7	46.4	4.9	2.6
1999	83.4	4.9	2.2	3.2	83.1	6.7	3.2
2000	71.2	6	1.8	3.8	58.2	5.8	2.9
2001	145.2	9.8	3.7	7.0	135.6	12.6	8.1
2002	128.8	9.1	3.2	5.4	120.6	10.1	4.3
2003	171.5	16.4	7.2	11.6	156.0	16.3	7.0
2004	207.5	29.2	15.9	18.9	185.8	11.9	4.2
2005	241.1	49.5	17.8	39.2	246.1	30.2	13.5
2006	284.9	74.8	28.4	57.5	216.6	41.4	16.7
2007	283.1	92.6	48.5	64.6	138.6	27.7	8.9
2008	110.8	62.2	29.9	46.2	76.6	25.5	11.8
2009	98.3	42.7	16.6	33.7	84.6	16.0	6.7
2010	113.2	37.2	13.1	29.6	100.3	12.6	5.8
2011	186.6	42.9	22.9	34.8	163.1	14.8	4.6
2012	223.8	28.7	8.1	19.9	132.2	15.5	5.5

Table 19. --Time series of biomass estimates (t) for eastern Bering Sea snow crab (*Chionoecetes opilio*) by size category (CW) and sex from National Marine Fisheries Service bottom trawl surveys, all ADF&G districts combined. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 95 mm	Mature male ≥ 95 mm	Mature male ± CI	Legal male ≥ 78 mm	Immature female < 50 mm	Mature female ≥ 50 mm	Mature female ± CI
1980	229,658	112,156	23,117	189,234	68,026	260,950	140,114
1981	160,377	38,715	7,935	96,180	23,008	144,871	45,737
1982	251,534	66,073	19,393	177,666	17,878	161,179	47,003
1983	182,804	68,051	18,258	162,470	19,896	86,298	32,808
1984	114,957	112,003	30,107	173,278	23,412	45,606	16,700
1985	43,840	55,857	11,895	79,401	6,872	7,985	3,081
1986	82,583	59,566	14,357	84,972	25,726	29,501	10,552
1987	263,362	110,614	23,086	182,229	103,492	191,911	58,150
1988	323,998	143,031	53,053	244,099	55,820	194,829	62,097
1989	376,717	147,971	29,304	299,545	84,169	270,382	131,495
1990	307,535	356,511	99,367	533,863	56,654	207,679	75,475
1991	288,981	342,610	103,124	471,500	100,717	239,877	87,868
1992	194,661	178,707	39,022	240,544	83,985	154,161	51,594
1993	267,444	98,923	21,198	142,909	131,310	129,262	38,630
1994	284,738	57,849	11,650	109,755	116,084	129,423	37,003
1995	359,485	60,743	19,825	155,270	83,813	160,727	42,361
1996	337,632	144,002	52,199	312,019	51,765	90,375	23,432
1997	207,510	232,831	56,874	362,785	39,995	92,988	33,764
1998	99,597	164,505	30,683	219,565	32,219	73,582	36,071
1999	43,374	67,232	13,595	86,773	12,008	33,562	13,500
2000	75,974	53,757	15,470	76,333	26,947	104,784	104,992
2001	164,874	56,352	10,620	105,477	17,572	97,135	52,856
002	82,408	56,095	26,889	100,723	7,102	35,224	18,692
2003	80,476	44,514	10,041	72,353	21,070	47,252	28,272
2004	88,141	44,320	14,384	61,831	52,756	50,109	26,079
2005	181,819	50,388	9,605	106,237	50,125	103,619	34,344
2006	122,465	90,094	61,110	141,290	21,923	77,362	25,977
2007	137,947	98,824	35,074	160,504	17,157	87,063	37,408
2008	112,950	79,654	16,881	123,295	11,265	61,862	23,212
2009	97,311	103,550	30,632	149,714	34,333	68,026	26,916
2010	146,348	107,131	27,491	136,140	110,403	131,999	46,658
2011	149,221	112,016	25,828	146,275	72,308	236,886	84,721
2012	123,677	67,497	18,907	104,456	71,837	193,144	74,898

Table 20. -- Time series of abundance estimates (in millions) for eastern Bering Sea snow crab (*Chionoecetes opilio*) by size category (CW) and sex from National Marine Fisheries Service bottom trawl surveys, all ADF&G districts combined. The 95% confidence intervals (CI) are 1.96 SE.

Year	Immature male < 95 mm	Mature male ≥ 95 mm	Mature male ± CI	Legal male ≥ 78 mm	Immature female < 50 mm	Mature female ≥ 50 mm	Mature female ± CI
1980	2543.0	212.7	46.3	515.9	1595.4	3452.5	1934.9
1981	1547.4	80.4	17.1	313.3	481.7	1886.4	613.6
1982	1821.9	145.5	43.8	592.9	364.2	2050.4	628.6
1983	1496.6	150.2	40.6	511.2	553.8	1157.5	453.0
1984	1203.4	223.4	58.9	455.4	635.1	586.4	219.8
1985	447.8	106.0	22.6	196.2	209.1	110.0	43.3
1986	1148.7	111.8	26.7	212.8	712.5	403.1	145.5
1987	3755.5	220.7	47.1	501.8	2474.7	2517.7	761.9
1988	3642.0	274.3	92.8	678.3	1308.2	2492.2	805.5
1989	3162.1	301.8	60.7	907.9	1775.4	3513.8	1902.2
1990	2265.4	728.1	207.9	1380.1	1348.3	2651.0	1026.7
1991	3320.3	610.4	174.8	1085.4	2645.9	3147.6	1275.0
1992	3077.7	313.8	67.7	553.4	2355.9	1876.9	639.8
1993	4749.8	182.5	39.8	355.9	3536.0	1710.7	516.7
1994	4114.9	107.2	21.3	321.1	3235.5	1645.1	438.3
1995	3608.6	125.8	43.7	508.3	1933.3	2171.0	562.2
1996	2309.3	302.4	105.1	959.0	1120.4	1243.9	325.7
1997	1205.2	447.0	99.2	946.4	858.4	1279.9	465.6
1998	778.4	308.6	56.2	514.9	711.0	1009.8	496.8
1999	419.9	124.4	23.3	197.9	294.6	439.3	181.8
2000	962.3	101.8	30.5	189.8	632.5	1388.5	1379.4
2001	1523.5	110.9	22.5	311.4	441.7	1264.2	695.7
2002	598.6	115.0	54.7	284.8	161.8	462.4	261.4
2003	1073.8	88.1	20.2	196.0	592.1	630.3	391.8
2004	1491.1	80.0	23.8	148.0	1625.3	683.0	371.2
2005	1892.6	89.3	16.5	313.8	1201.2	1427.9	477.3
2006	1173.4	171.5	118.5	375.9	585.8	914.7	305.5
2007	1258.3	194.5	64.5	432.0	378.1	1075.9	484.2
2008	1008.0	154.2	31.2	324.8	425.6	715.6	299.2
2009	1055.8	195.8	57.1	371.7	979.5	827.9	340.7
2010	2464.3	187.4	44.8	297.0	3375.4	1440.1	490.9
2011	1829.7	194.6	45.7	331.3	1682.9	2629.4	914.8
2012	1384.8	123.5	34.3	274.1	1717.2	2104.3	883.5

Table 21. -- Time series of biomass estimates (t) for hair crab (*Erimacrus isenbeckii*) by size category (CL) and sex from National Marine Fisheries Service bottom trawl surveys, all ADF&G districts combined. The 95% confidence intervals (CI) are 1.96 SE.

Year	Sublegal males < 83 mm	Legal males ≥ 83 mm	Legal male ± CI	Total female	Total female ± CI
1980	612	12172	8498	370	338
1981	699	12052	5423	159	83
1982	180	7107	3941	194	69
1983	67	4537	1331	296	151
1984	470	2657	839	123	89
1985	83	2081	1041	60	51
1986	207	1478	786	100	69
1987	354	1079	606	207	109
1988	638	643	350	284	88
1989	3032	507	252	114	127
1990	4412	803	440	246	148
1991	1376	793	433	229	129
1992	898	591	299	120	53
1993	1111	2296	1588	248	148
1994	1329	2420	1223	193	133
1995	1638	5948	3260	189	98
1996	1316	3159	1738	275	132
1997	583	3110	1288	176	56
1998	213	1991	797	359	241
1999	185	1674	503	305	123
2000	324	2865	1255	330	180
2001	131	1283	521	564	243
2002	65	1368	528	101	64
2003	355	676	272	222	47
2004	202	467	184	83	71
2005	325	209	131	271	133
2006	351	662	413	1174	950
2007	579	1266	517	355	167
2008	621	1341	629	464	174
2009	1156	1904	729	512	269
2010	893	1572	670	468	186
2011	1750	2119	933	375	161
2012	3618	2867	1122	612	237

Table 22. -- Time series of abundance estimates (in millions) for hair crab (*Erimacrus isenbeckii*) by size category (CL) and sex from National Marine Fisheries Service bottom trawl surveys, all ADF&G districts combined. The 95% confidence intervals (CI) are 1.96 SE.

Year	Sublegal males < 83 mm	Legal males ≥ 83 mm	Legal male ± CI	Total female	Total female ± CI
1980	1.9	15.4	10.1	1.9	2.2
1981	2.0	15.1	7.3	0.6	0.4
1982	0.5	8.8	4.9	0.8	0.2
1983	0.3	5.9	1.7	0.9	0.5
1984	1.6	3.4	1.1	0.5	0.3
1985	0.3	2.5	1.3	0.3	0.2
1986	0.7	1.8	1.0	0.4	0.3
1987	1.6	1.4	0.7	0.9	0.4
1988	4.0	0.8	0.4	1.4	0.7
1989	12.8	0.7	0.4	0.5	0.6
1990	16.5	1.2	0.7	1.0	0.6
1991	4.7	1.3	0.7	1.2	0.7
1992	3.0	1.1	0.6	1.0	0.4
1993	3.8	3.9	2.6	2.0	1.0
1994	5.0	4.1	2.1	1.3	1.1
1995	5.9	8.4	4.5	1.0	0.6
1996	4.1	5.1	2.7	1.0	0.5
1997	1.7	4.6	1.8	1.3	0.2
1998	0.6	2.9	1.1	1.3	0.8
1999	0.6	2.3	0.7	1.2	0.4
2000	1.0	4.1	1.7	1.2	0.7
2001	0.5	1.8	0.7	2.2	1.0
2002	0.3	2.0	0.8	0.5	0.3
2003	1.3	0.9	0.4	1.0	0.3
2004	0.6	0.7	0.3	0.3	0.2
2005	1.0	0.3	0.2	0.8	0.5
2006	1.2	1.0	0.7	4.7	4.6
2007	2.3	1.9	0.7	1.3	0.9
2008	2.3	2.2	1.0	2.0	0.6
2009	3.9	3.1	1.1	2.0	1.2
2010	3.2	2.4	1.0	2.2	1.1
2011	6.9	3.5	1.4	1.6	0.6
2012	11.8	4.6	1.8	2.8	0.9

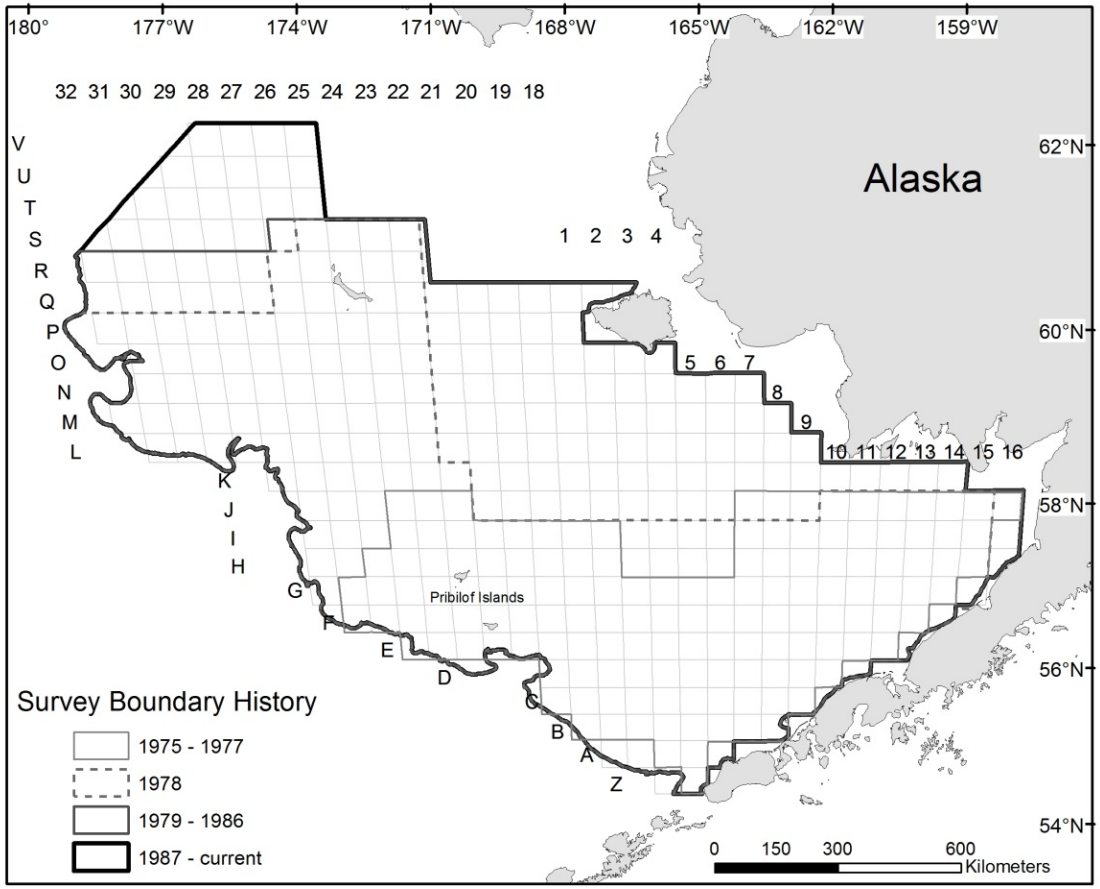


Figure 1. -- National Marine Fisheries Service eastern Bering Sea bottom trawl survey boundary from 1975 to present indicating four major stanzas in total coverage.

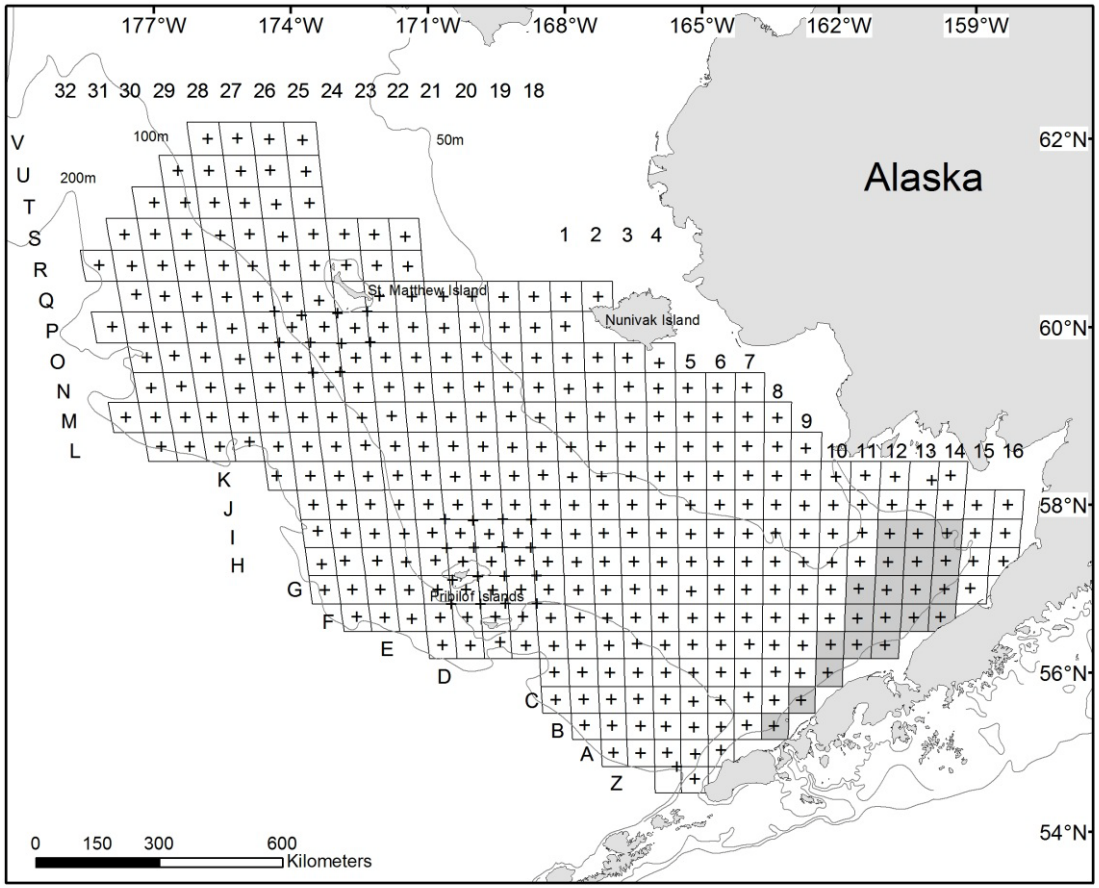


Figure 2. -- National Marine Fisheries Service eastern Bering Sea standard bottom trawl area surveyed by FV *Alaska Knight* and FV *Aldebaran* from 4 June to 25 July 2012. Shaded area depicts Bristol Bay resample stations, 29 July to 2 August 2012.

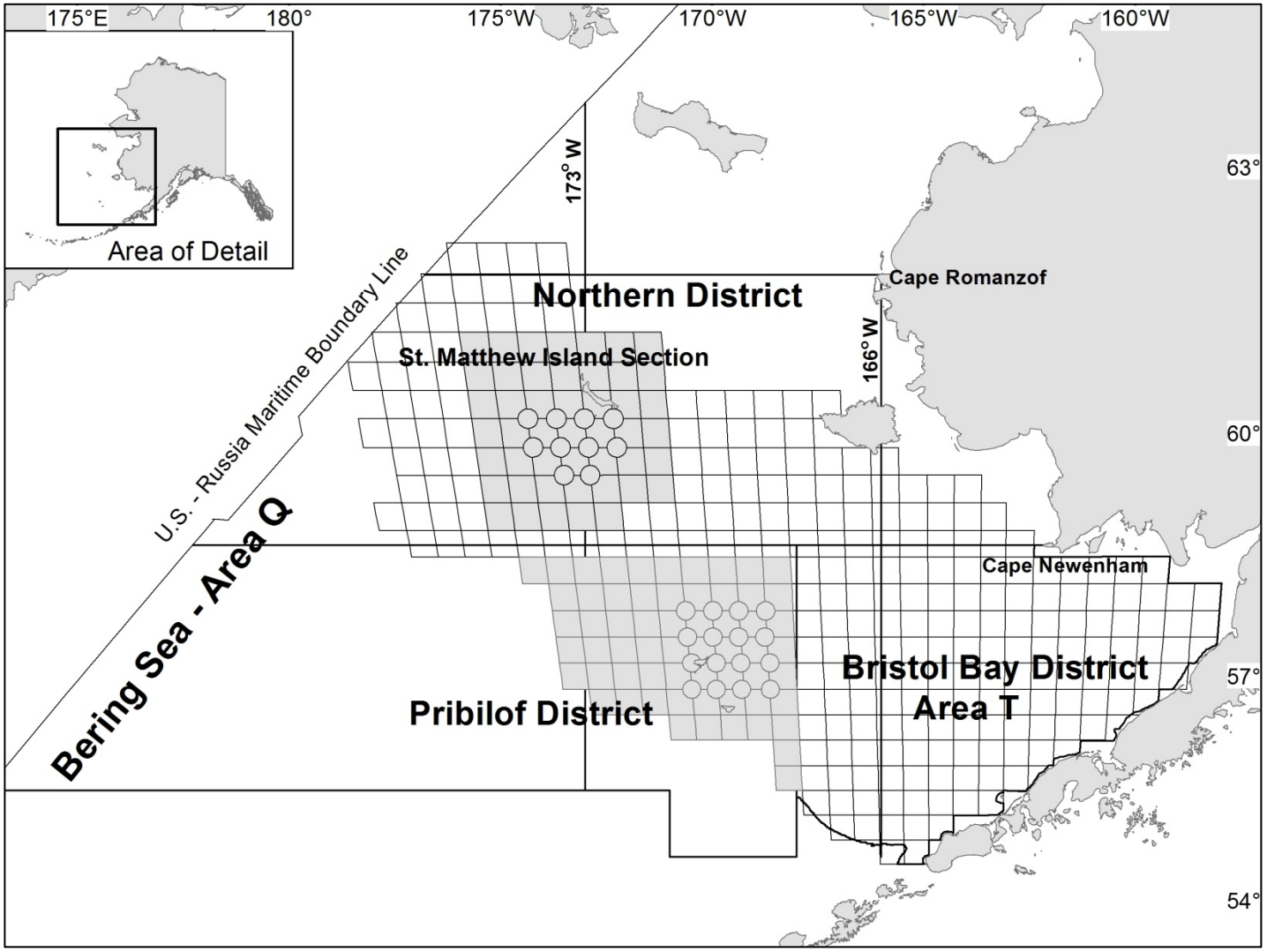


Figure 3. -- Alaska Department of Fish and Game commercial crab management units within the 2012 eastern Bering Sea bottom trawl survey area. Grey areas represent stations included in in the Pribilof District and St. Matthew Island Section, Northern District sampling strata and circles represent the high-density sampling areas.

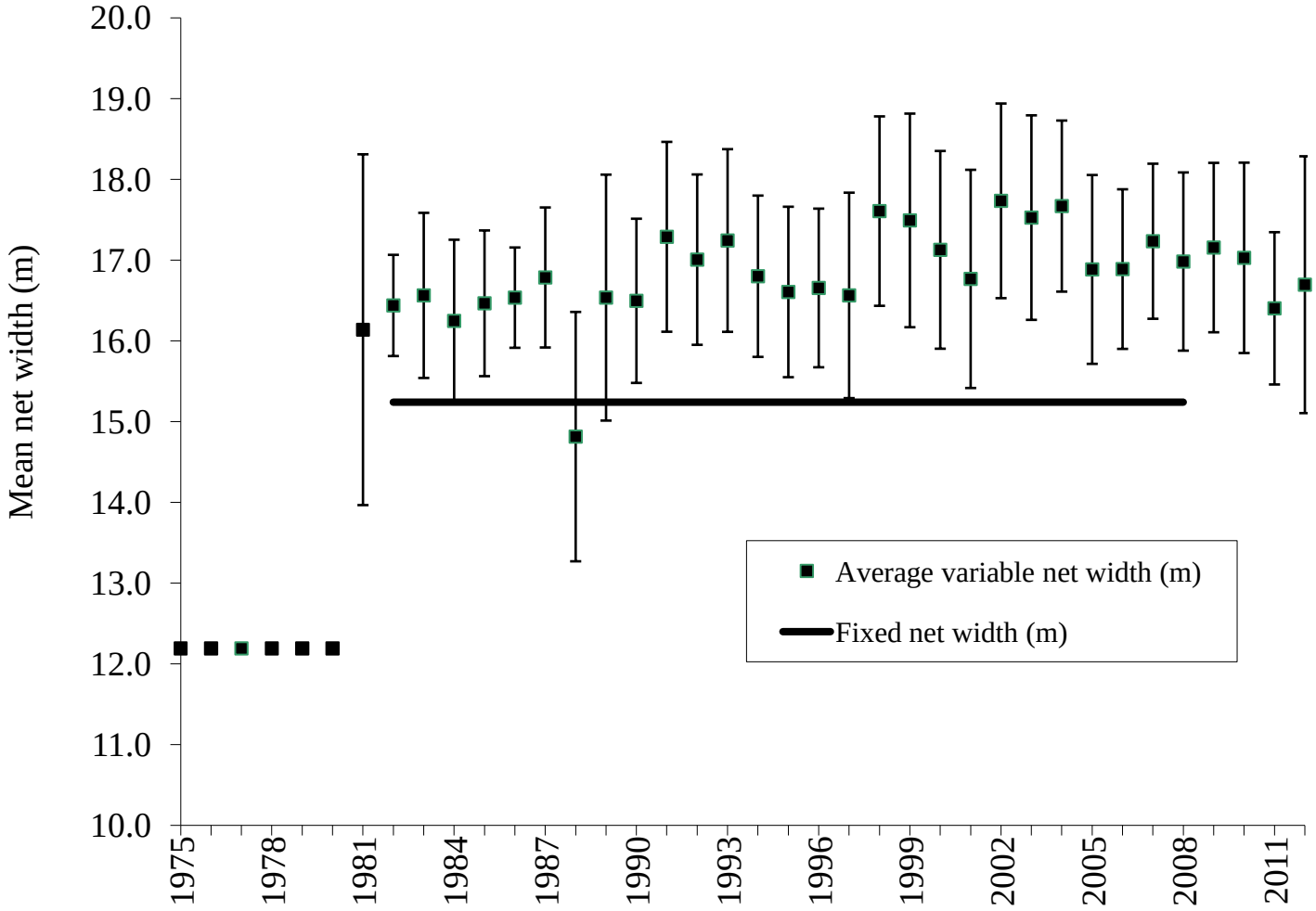


Figure 4. -- Fixed and average variable net widths (SD) used to calculate area swept by National Marine Fisheries Service eastern Bering Sea standard bottom trawls from 1975 to the present.

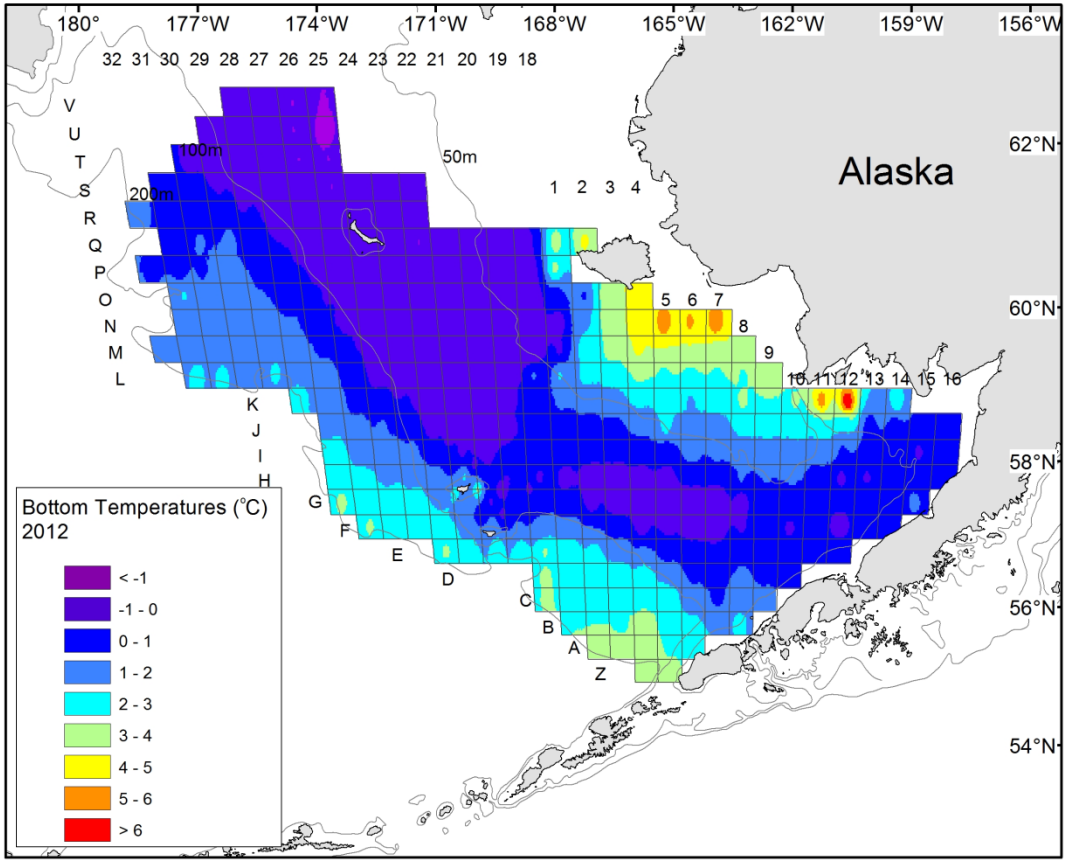


Figure 5. -- Bottom temperatures (°C) measured at stations from the National Marine Fisheries Service eastern Bering Sea bottom trawl survey, beginning 4 June 2012 in Bristol Bay and ending on 25 July 2012 at the western edge of the survey. This figure does not reflect the 20 stations resampled in Bristol Bay from 29 July to 2 August 2012.

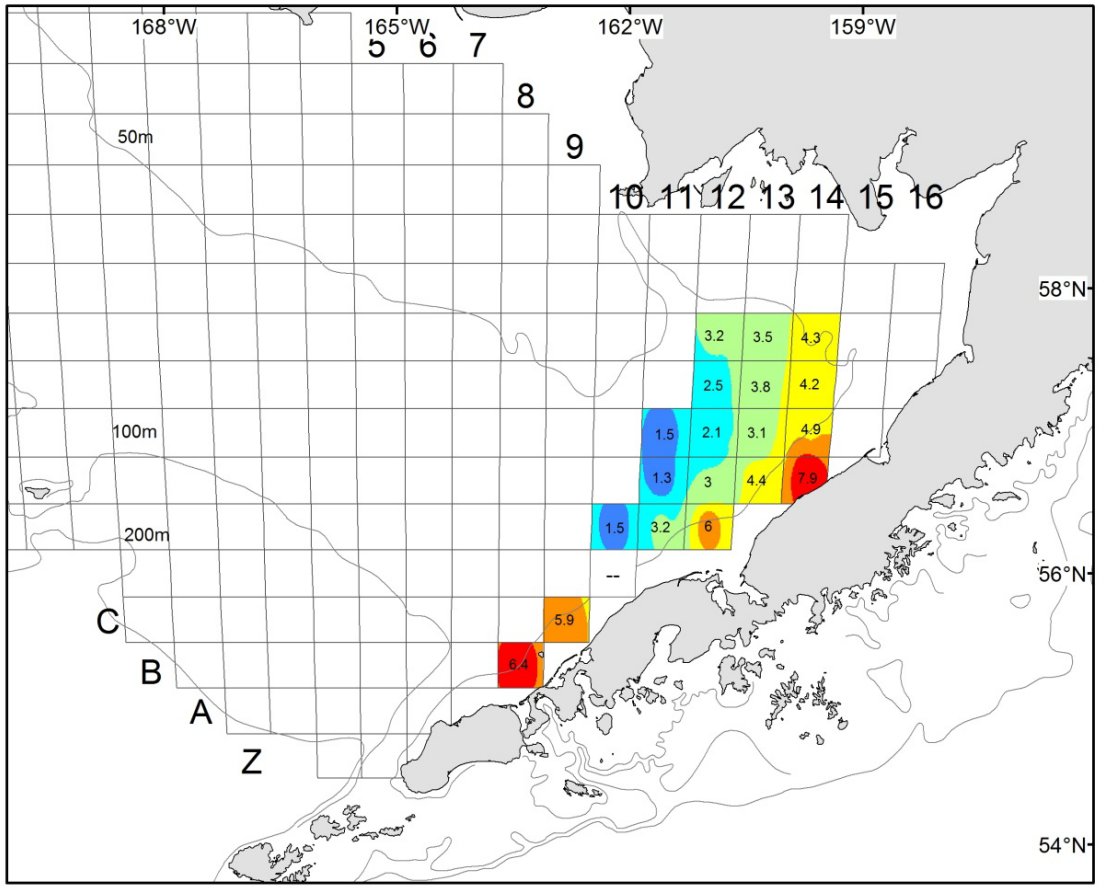


Figure 6. -- Bottom temperatures (°C) measured at the 20 resample stations in Bristol Bay, surveyed from 29 July to 2 August 2012.

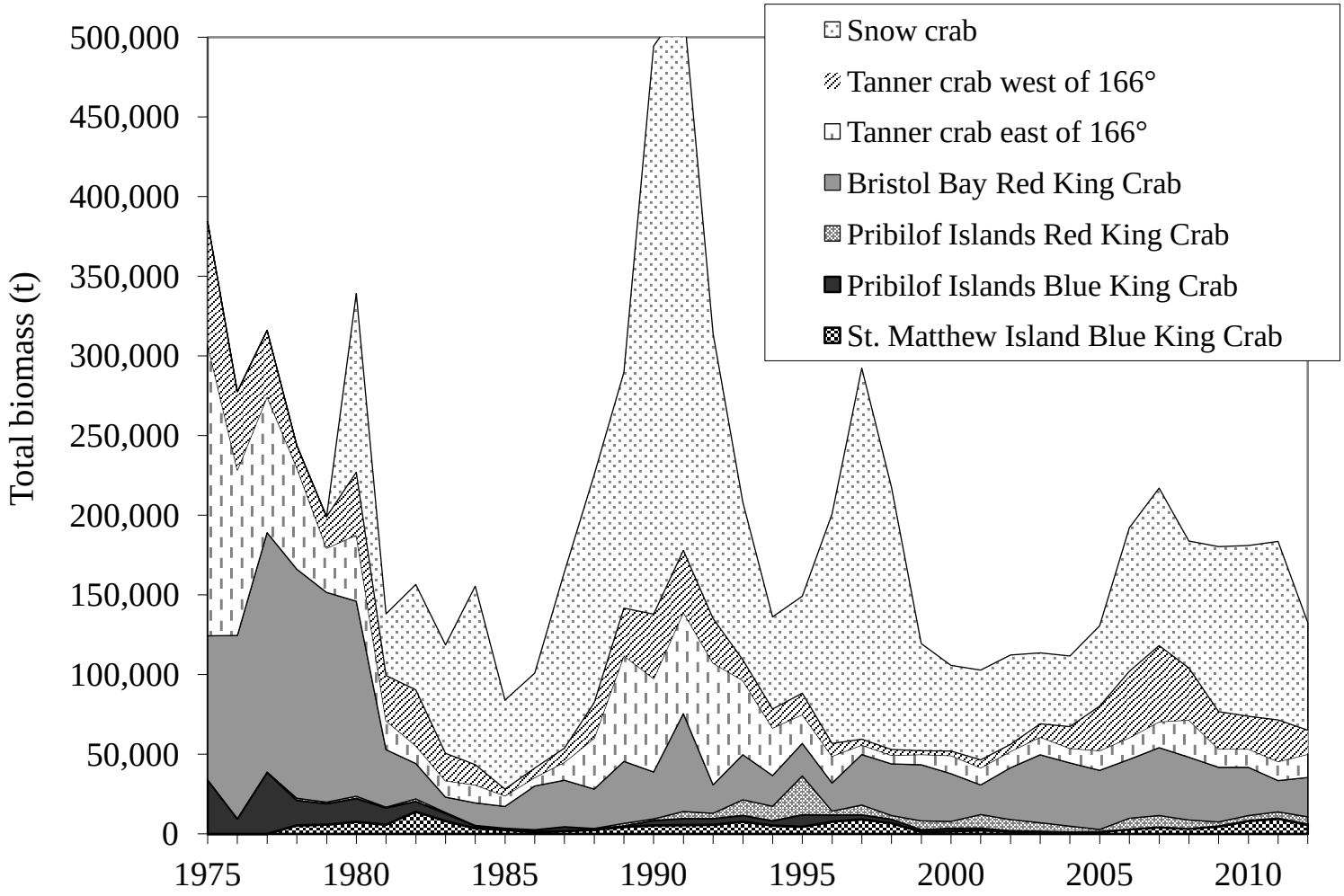


Figure 7. -- Historical mature male biomass for six commercial species caught on National Marine Fisheries Service eastern Bering Sea bottom trawl surveys.

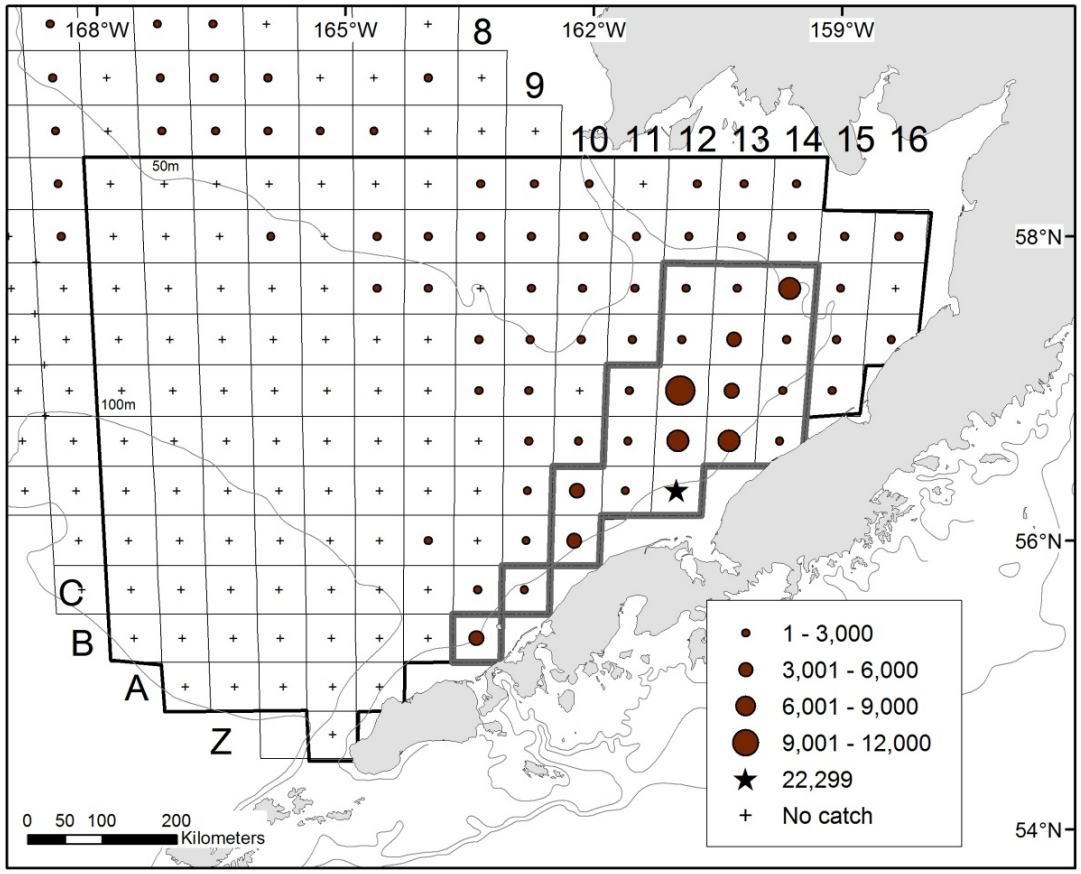


Figure 8. -- Total density (number nmi^{-2}) of red king crab (*Paralithodes camtschaticus*) at each station sampled in the 2012 Bristol Bay District. Data depicted by circles are equal interval densities, while stars are densities larger than the standard scale. Outlined area depicts the management district and the resurveyed stations outlined in grey within the management district.

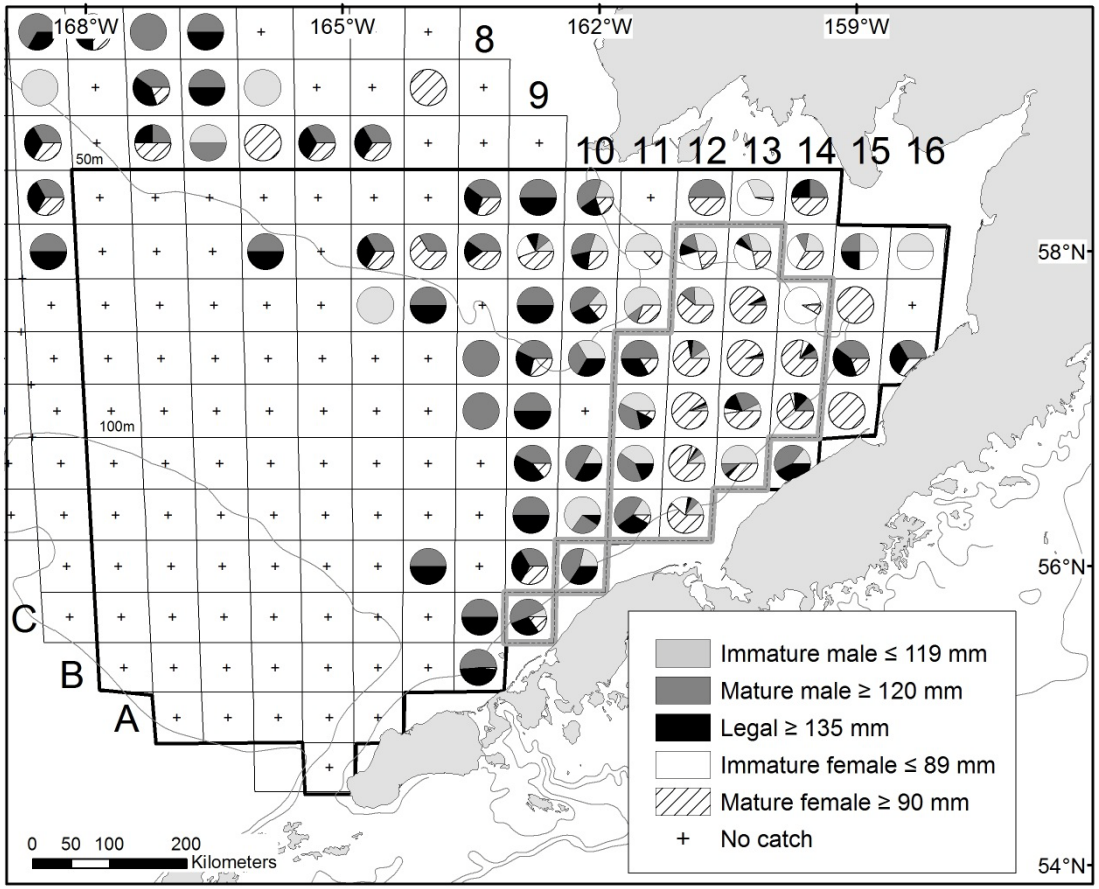


Figure 9. -- Percentage of male and female red king crab (*Paralithodes camtschaticus*) size classes caught at each station of the Bristol Bay District in 2012. Outlined area depicts management district and the 20 resurveyed stations are outlined in grey.

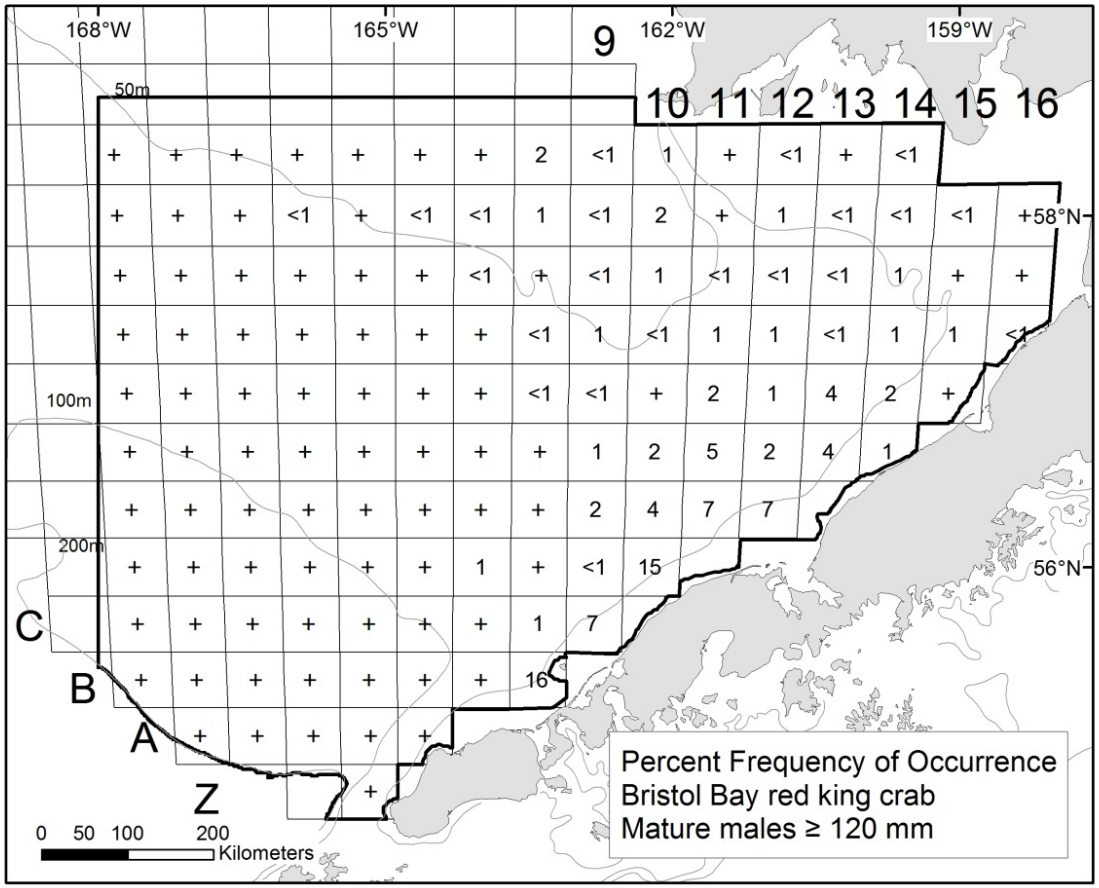


Figure 10. -- Percent frequency of occurrence of mature male red king crab (*Paralithodes camtschaticus*) at stations sampled in the 2012 Bristol Bay District.

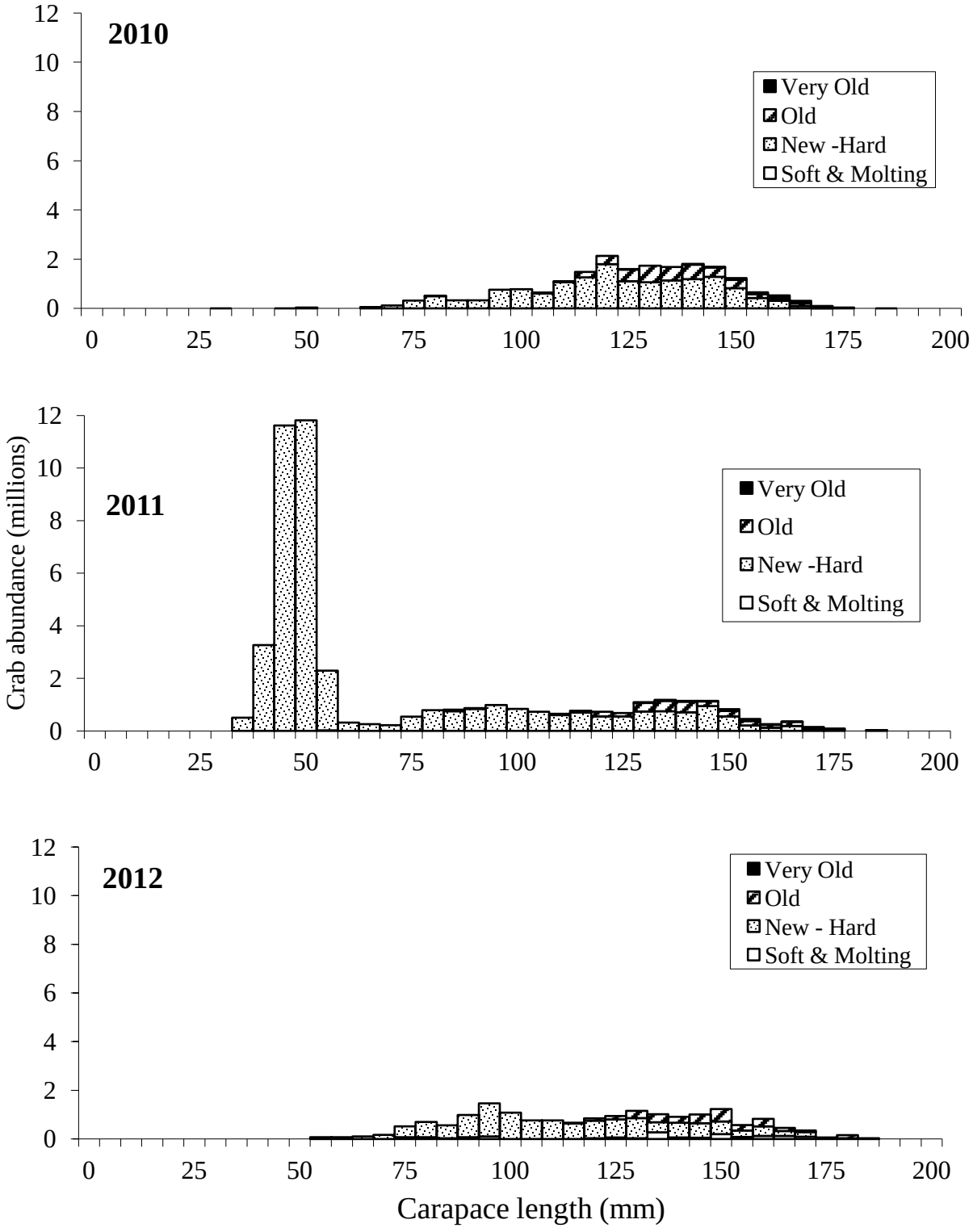


Figure 11. -- Size-frequency by shell condition of Bristol Bay District male red king crab (*Paralithodes camtschaticus*) by 5 mm length classes, 2010-2012.

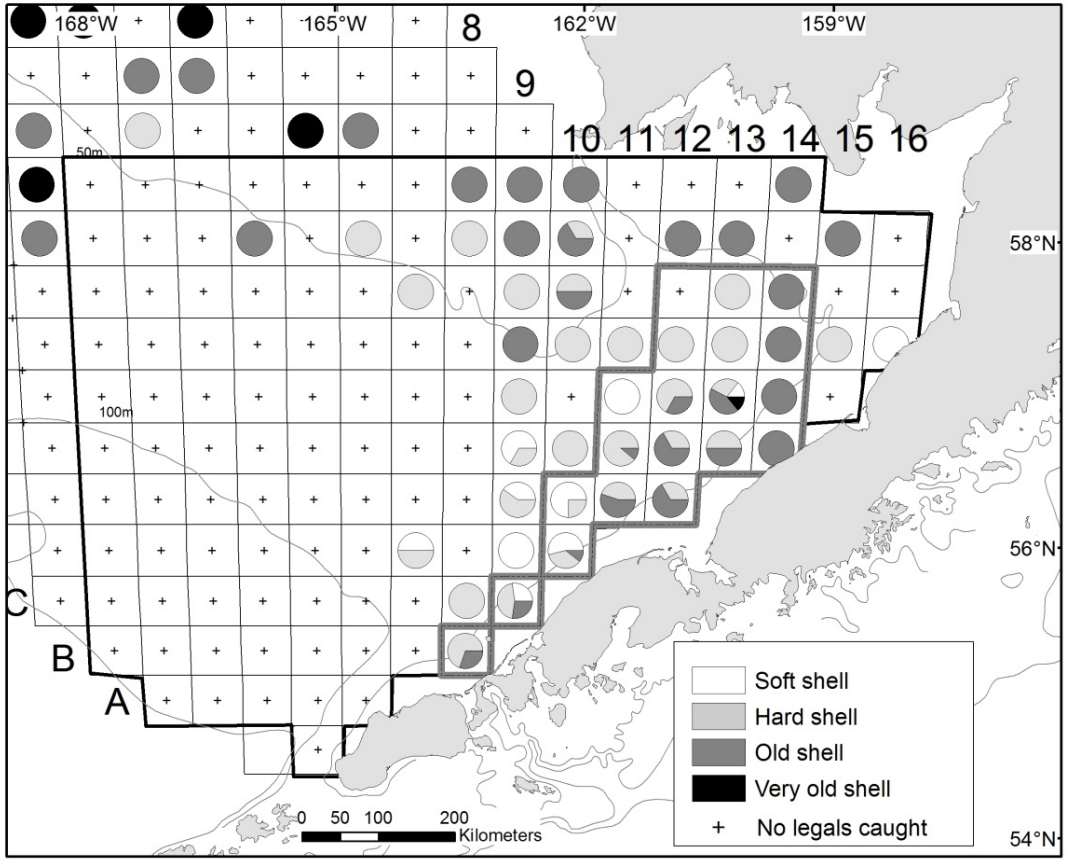
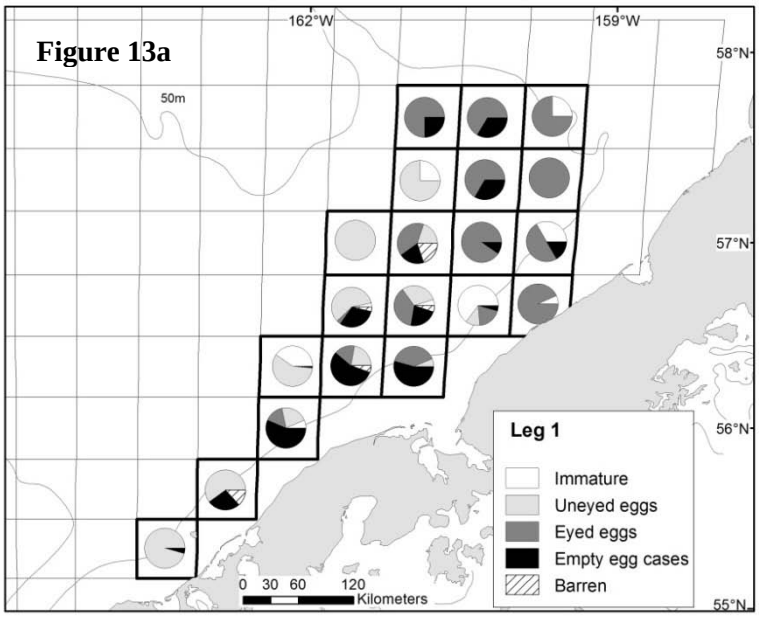


Figure 12. -- Distribution of legal-sized male red king crab (*Paralithodes camtschaticus*) caught at each station in the 2012 Bristol Bay District and distinguished by shell condition. Outlined area depicts management district and the 20 resurveyed stations are outlined in grey.



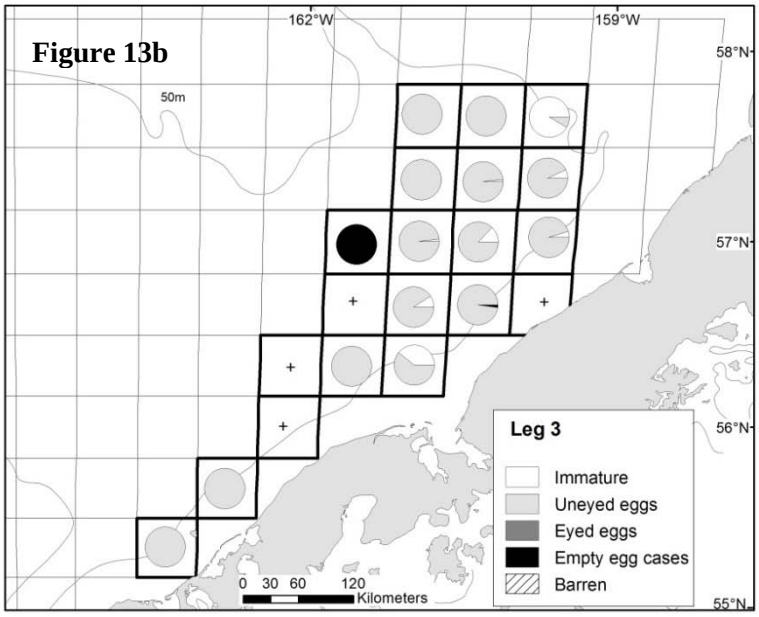
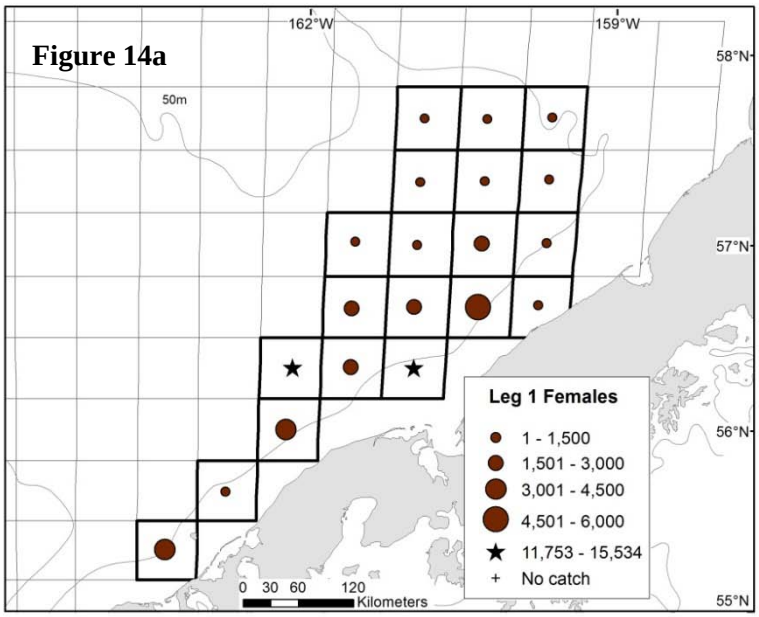


Figure 13. -- Distribution and egg condition of female red king crab (*Paralithodes camtschaticus)* caught (a) Leg 1 (4 - 22 June 2012) and (b) Leg 3 (29 July to 2 August) in the Bristol Bay District. Outline depicts the 20 stations resampled in late July on Leg 3.



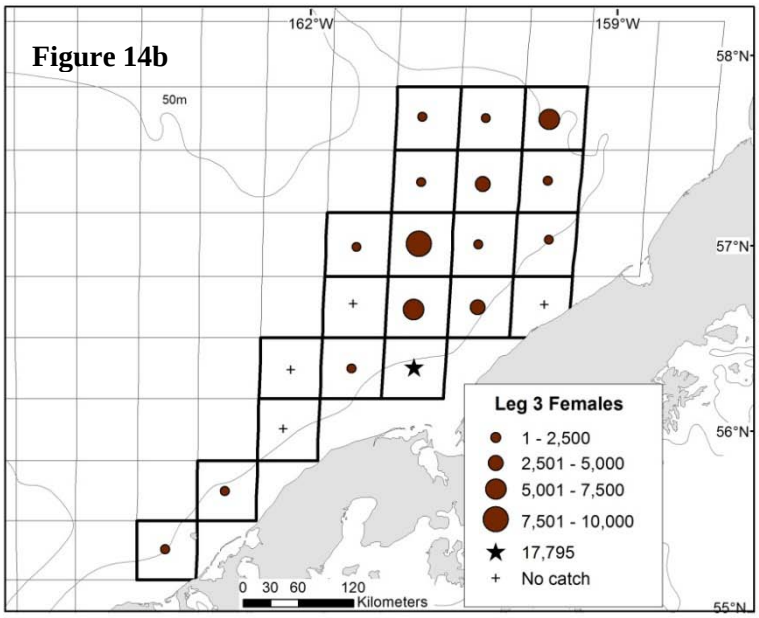
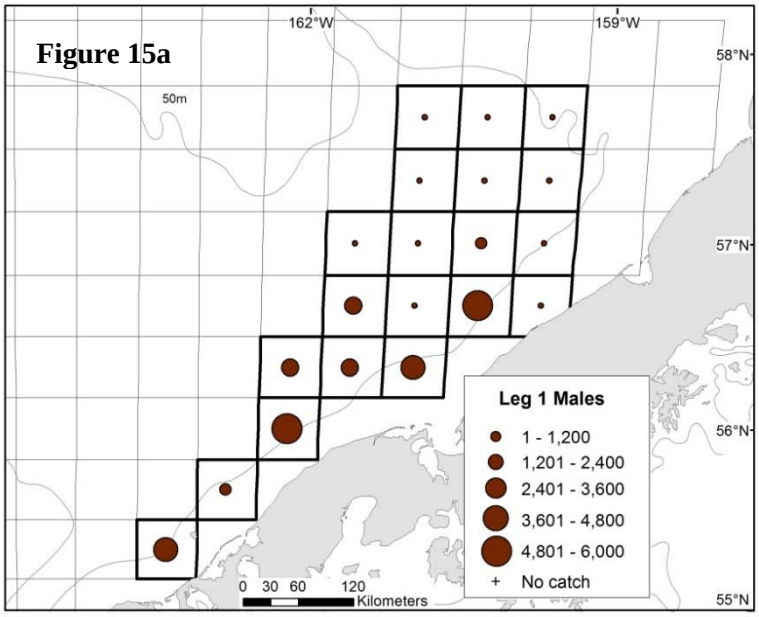


Figure 14. -- Total density (number nmi^{-2}) of female red king crab (*Paralithodes camtschaticus*) at each station sampled during (a) Leg 1 (4 - 22 June 2012) and (b) Leg 3 (29 July to 2 August) in the Bristol Bay District.



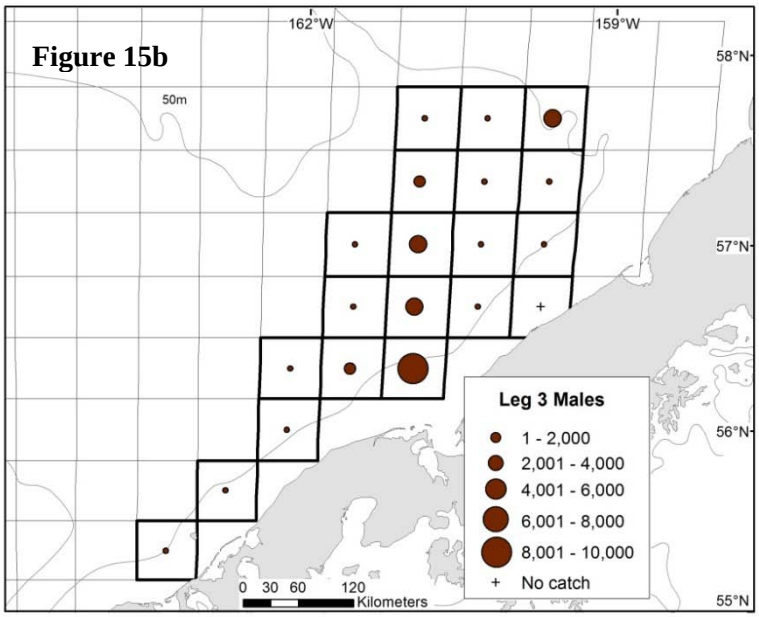


Figure 15. -- Total density (number nmi^{-2}) of male red king crab (*Paralithodes camtschaticus*) at each station sampled during (a) Leg 1 (4 - 22 June 2012) and (b) Leg 3 (29 July to 2 August) in the Bristol Bay District.

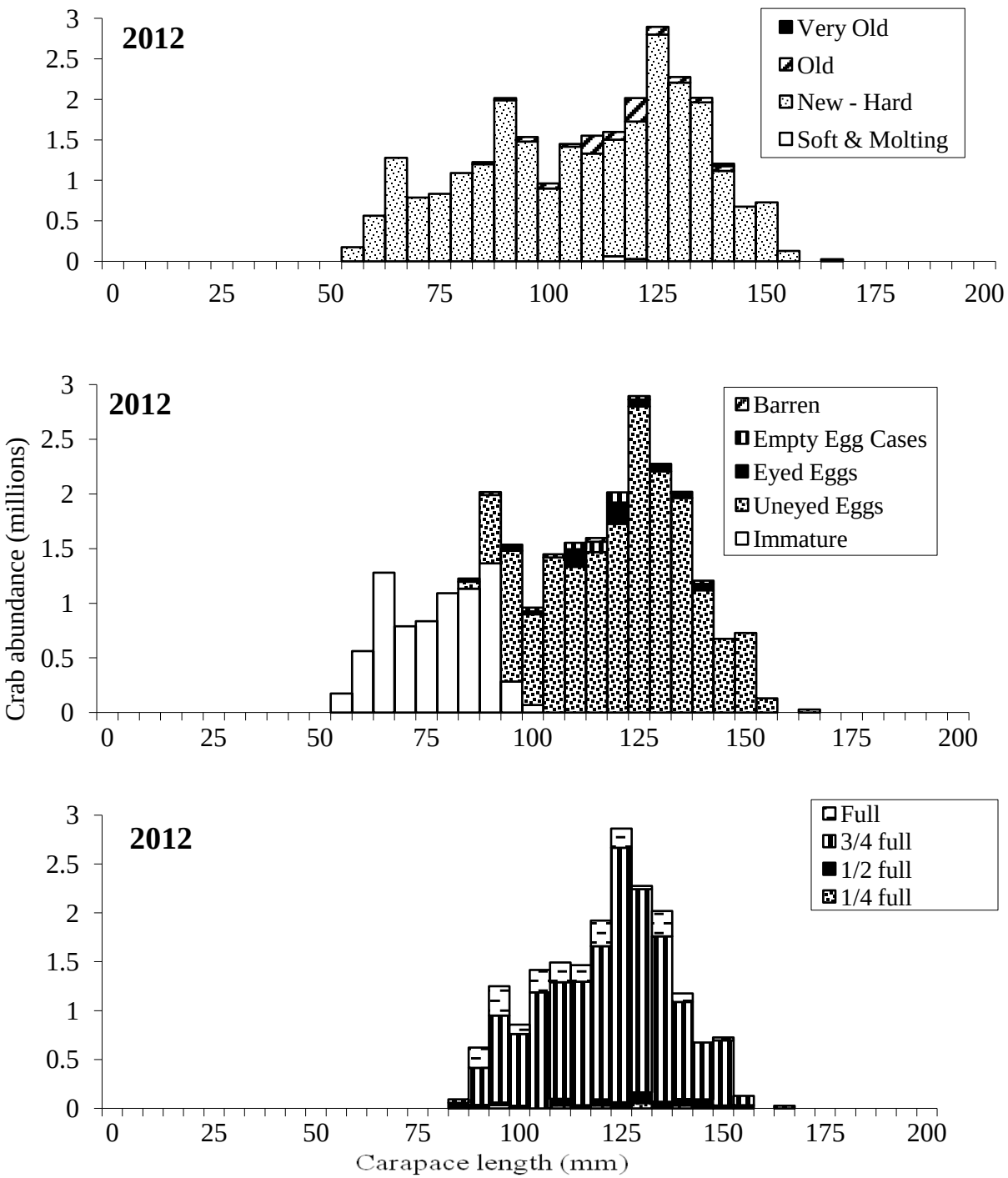
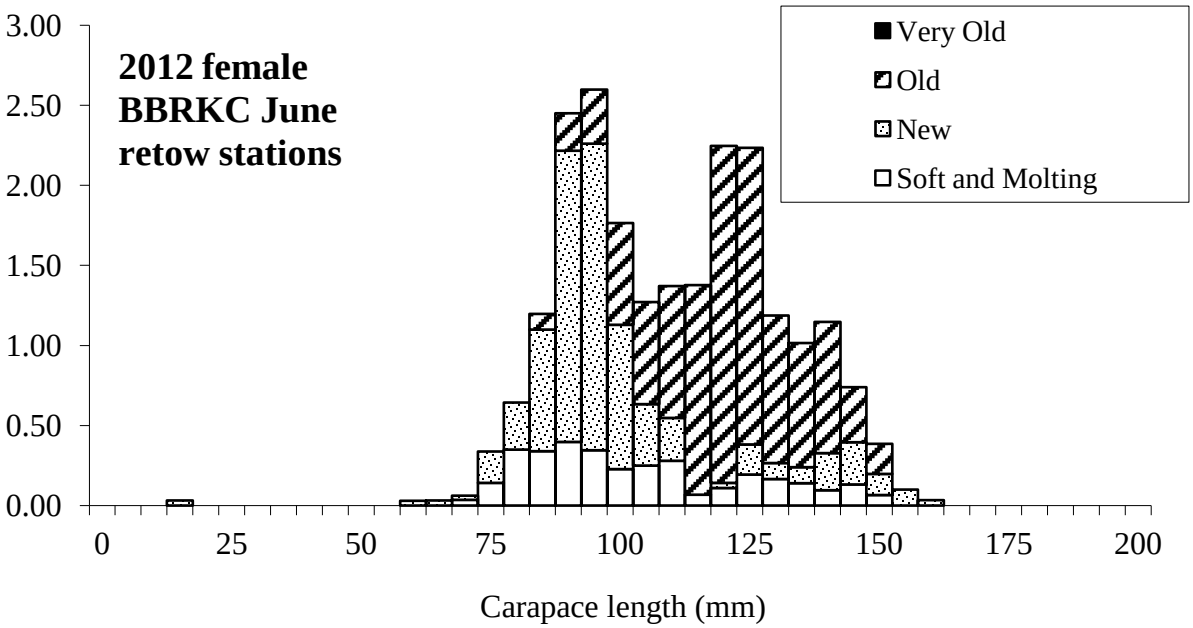


Figure 16. -- Size-frequency by shell condition, egg condition, and clutch fullness of Bristol Bay District female red king crab (*Paralithodes camtschaticus*) by 5 mm length classes in 2012.



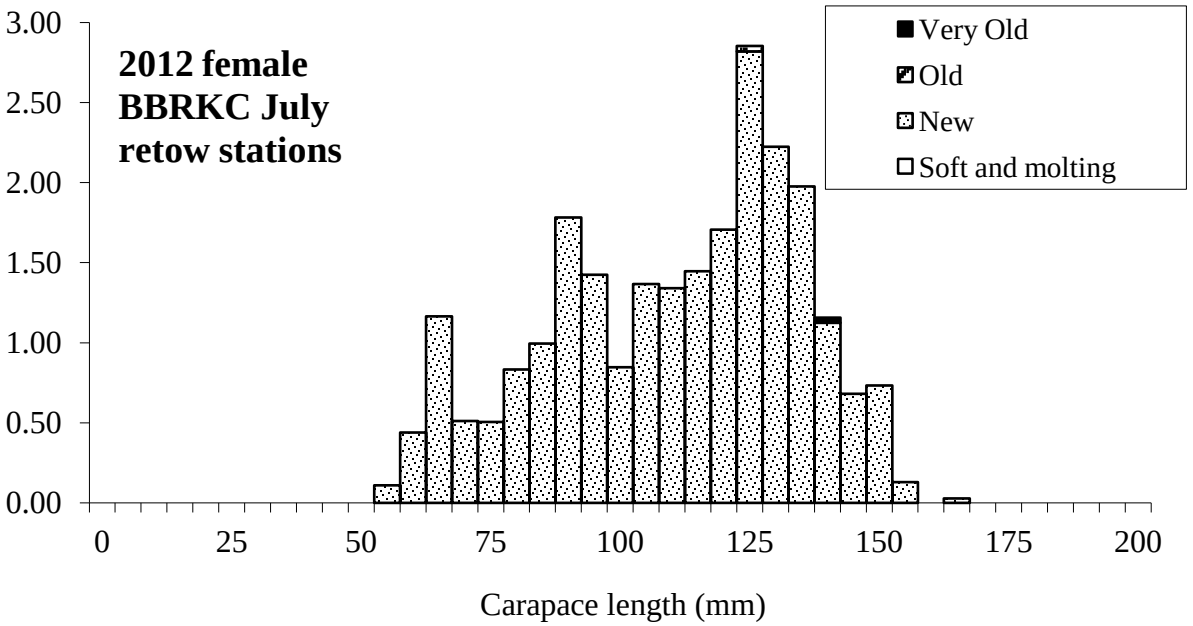


Figure 17. -- Size-frequency by shell condition of Bristol Bay District female red king crab (*Paralithodes camtschaticus*) by 5 mm length classes for June and July retow stations in 2012.

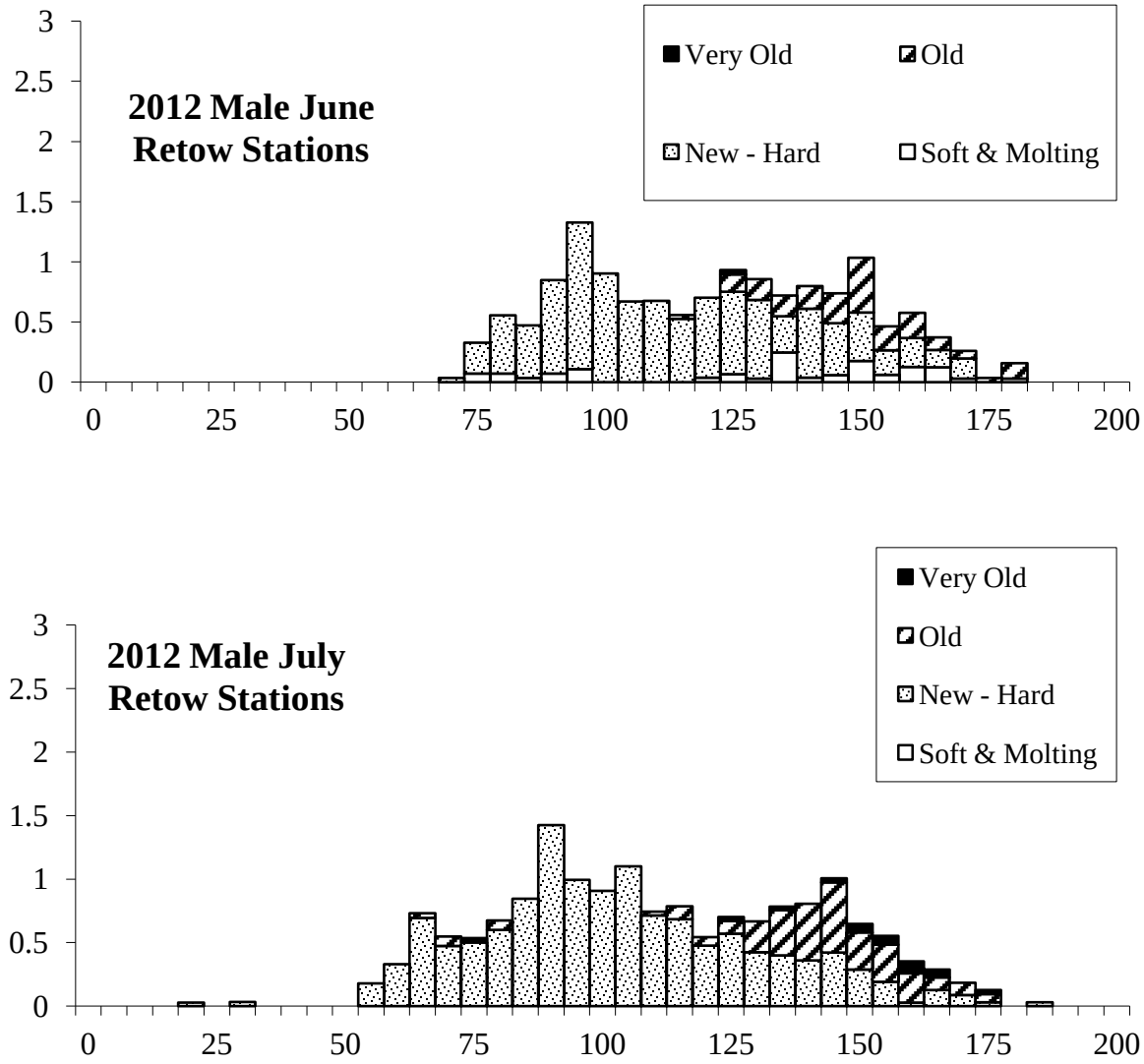
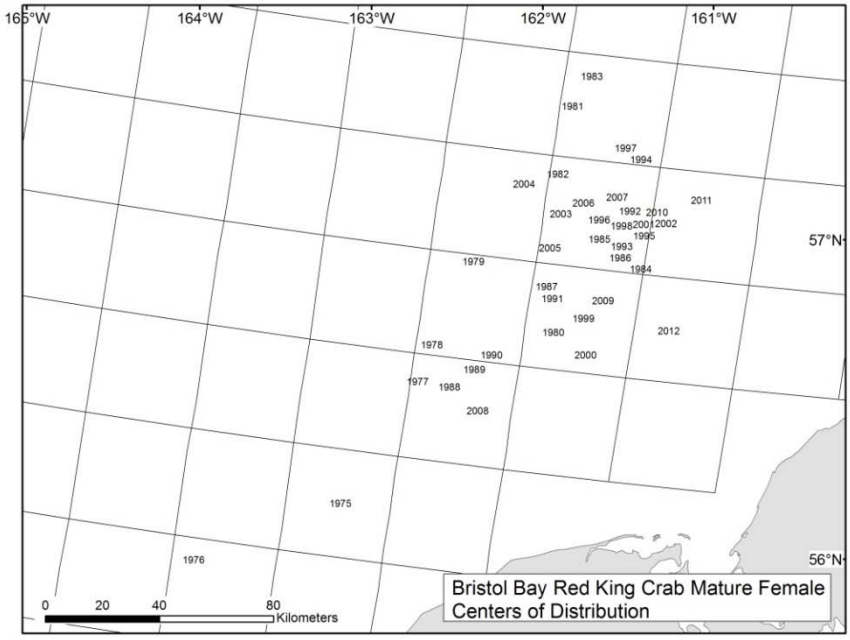


Figure 18. -- Size-frequency by shell condition of Bristol Bay District female red king crab (*Paralithodes camtschaticus*) by 5 mm length classes for June and July retow stations in 2012.



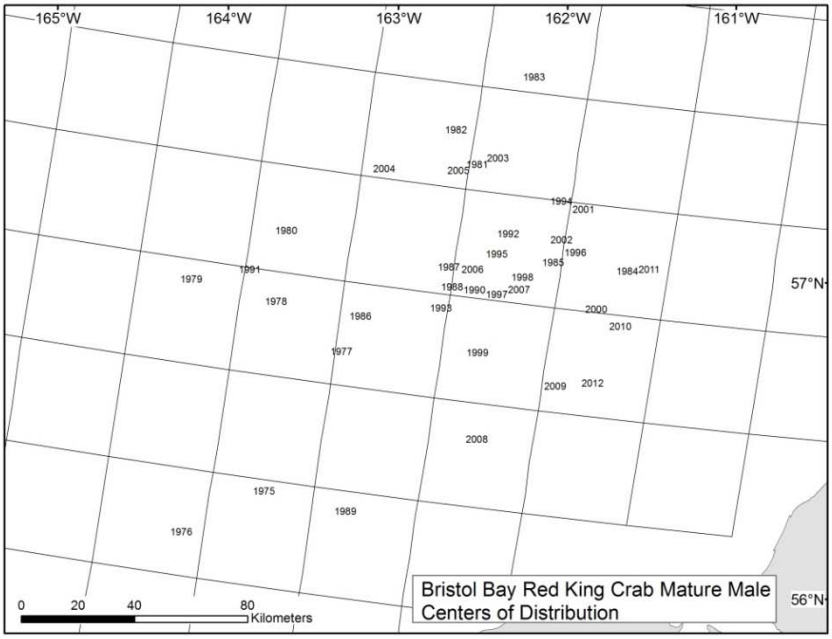


Figure 19. -- Centers of stock distribution of Bristol Bay District female and male red king crab (*Paralithodes camtschaticus*) from 1975 to 2012.

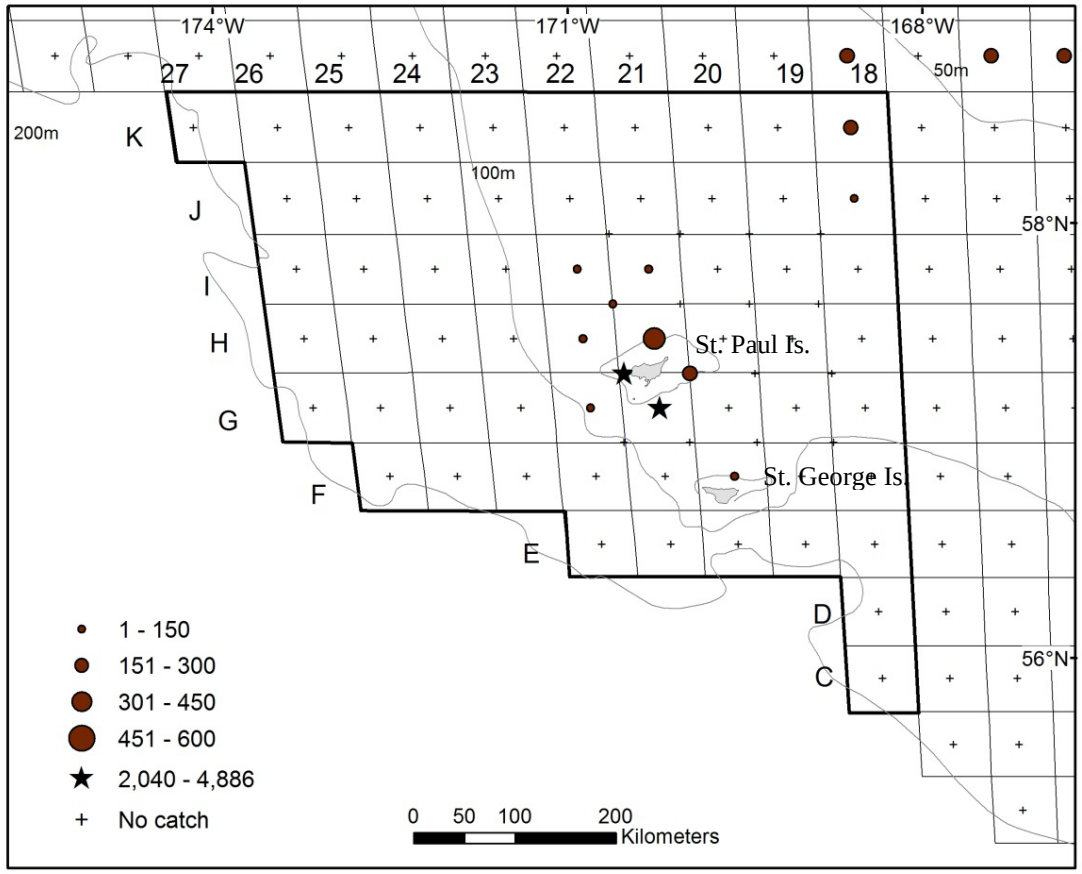


Figure 20. -- Total density (number nmi^{-2}) of red king crab (*Paralithodes camtschaticus*) at each station sampled in the Pribilof District in 2012. Data depicted by circles are equal interval densities and outlined area depicts stations within the management district.

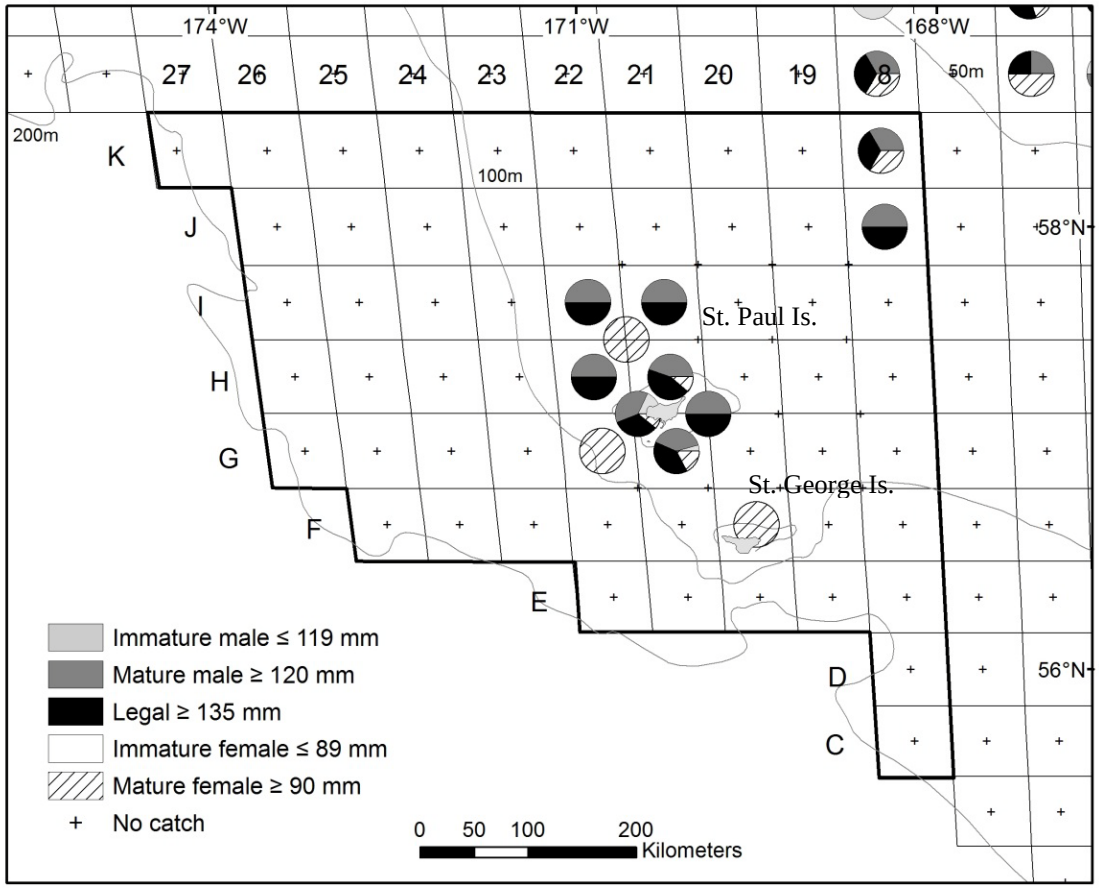


Figure 21. -- Percentage of male and female red king crab (*Paralithodes camtschaticus*) size classes at each station of the Pribilof District in 2012. The outlined area depicts stations within the management district.

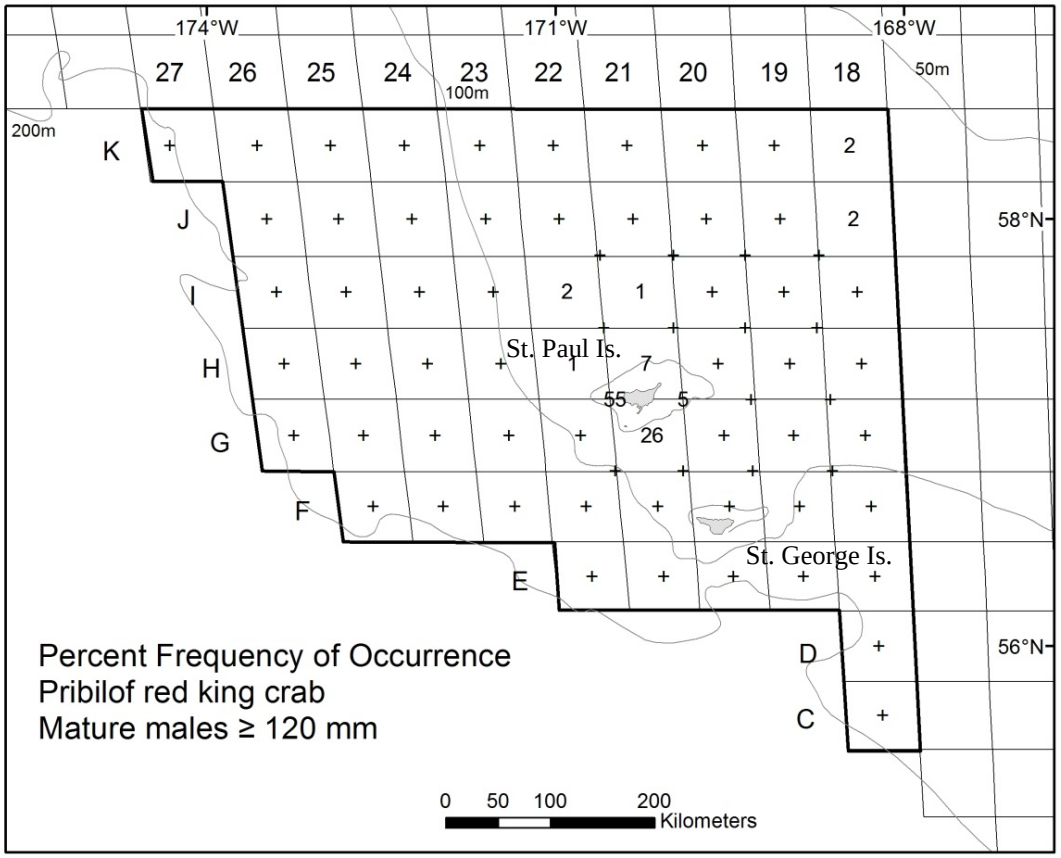


Figure 22. -- Percent frequency of occurrence of mature male red king crab (*Paralithodes camtschaticus*) at stations sampled in the 2012 Pribilof District.

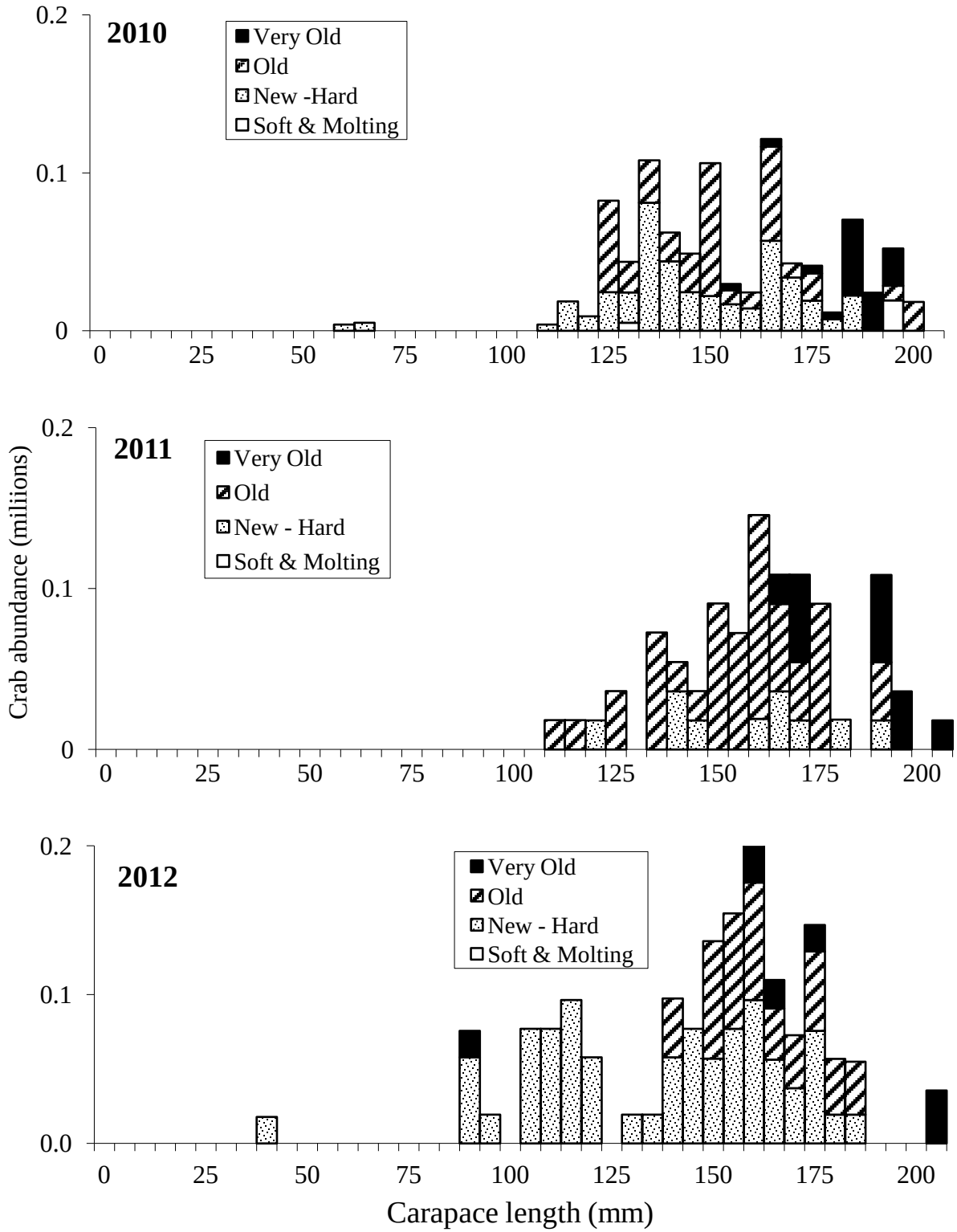


Figure 23. -- Size-frequency by shell condition of Pribilof District male red king crab (*Paralithodes camtschaticus*) by 5 mm length classes, 2010-2012.

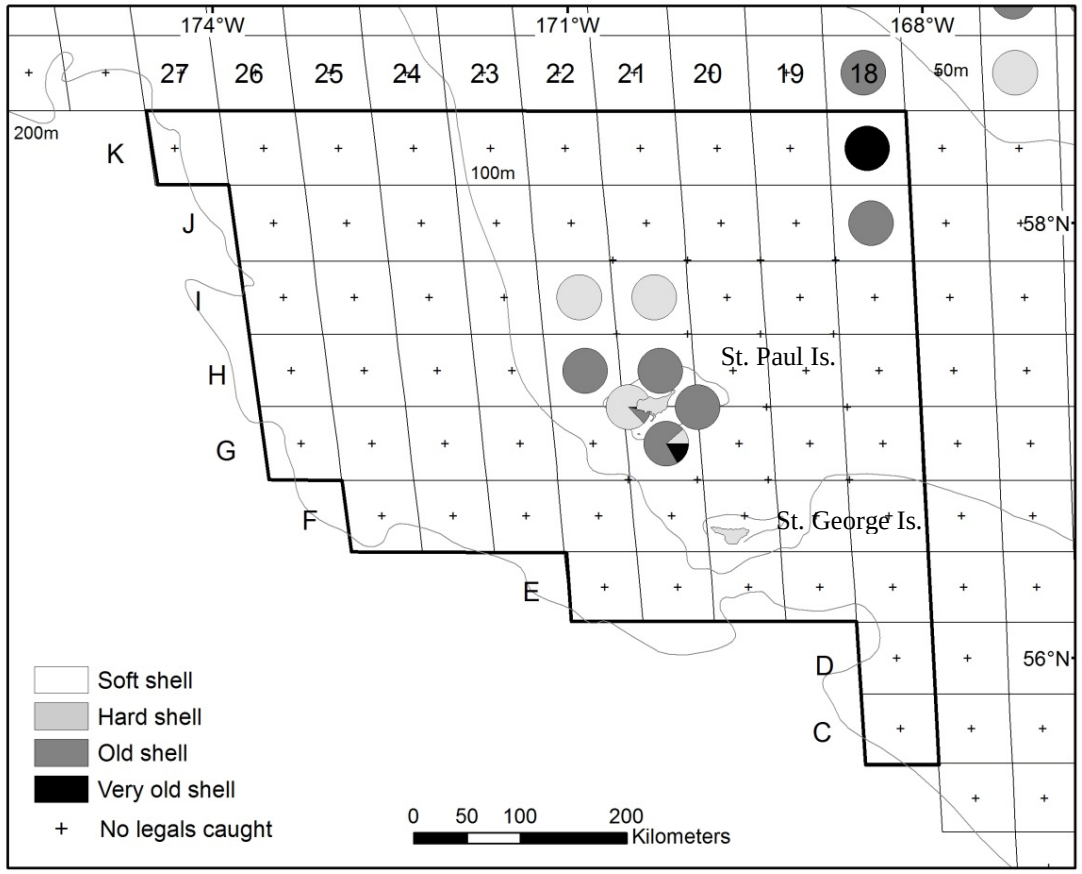


Figure 24. -- Distribution of legal-sized male red king crab (*Paralithodes camtschaticus*) caught at each station of the Pribilof District in 2012 and distinguished by shell condition. The outlined area depicts stations within the management district.

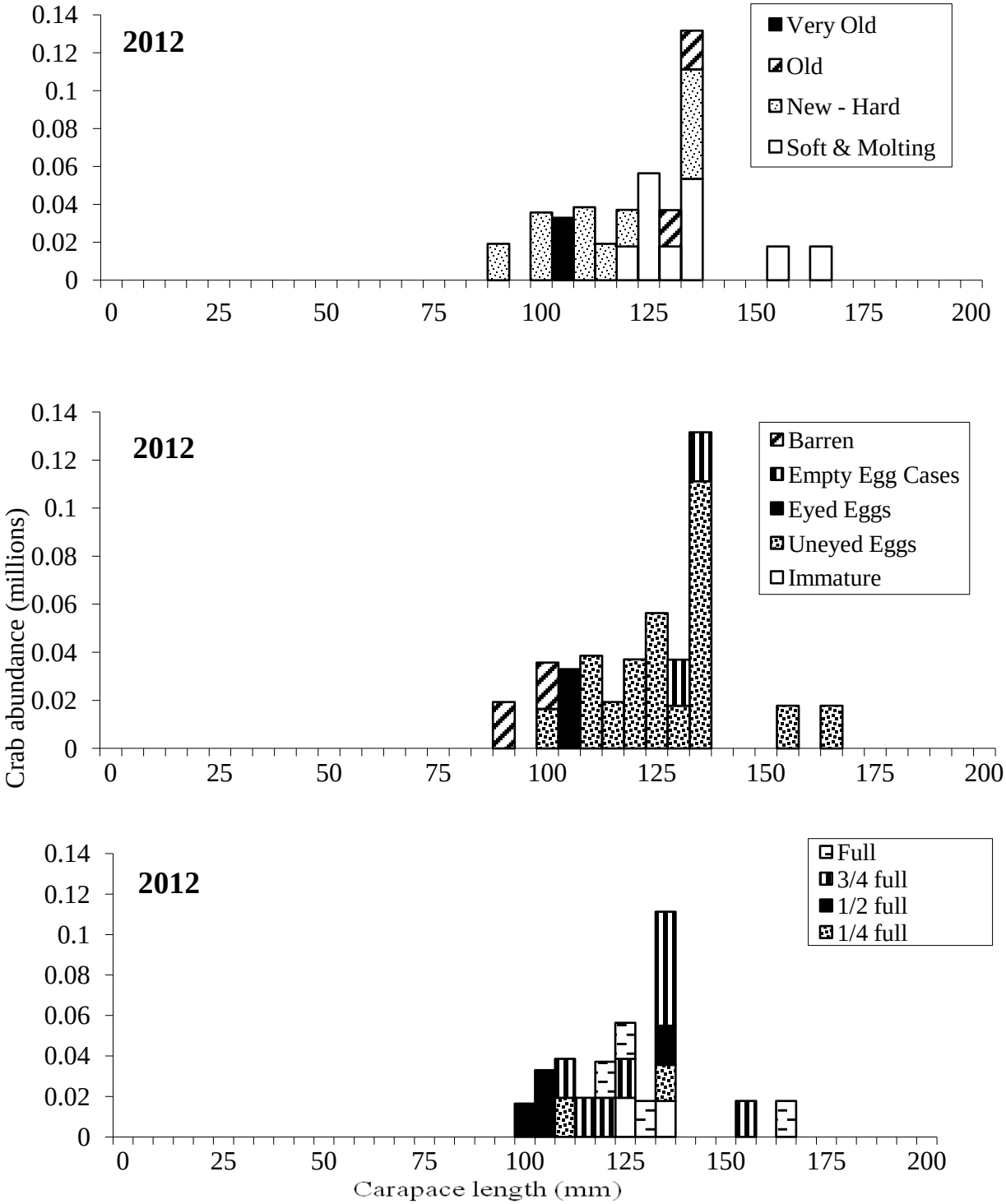


Figure 25. -- Size-frequency by shell condition, egg condition, and clutch fullness of Pribilof District female red king crab (*Paralithodes camtschaticus*) by 5 mm length classes in 2012.

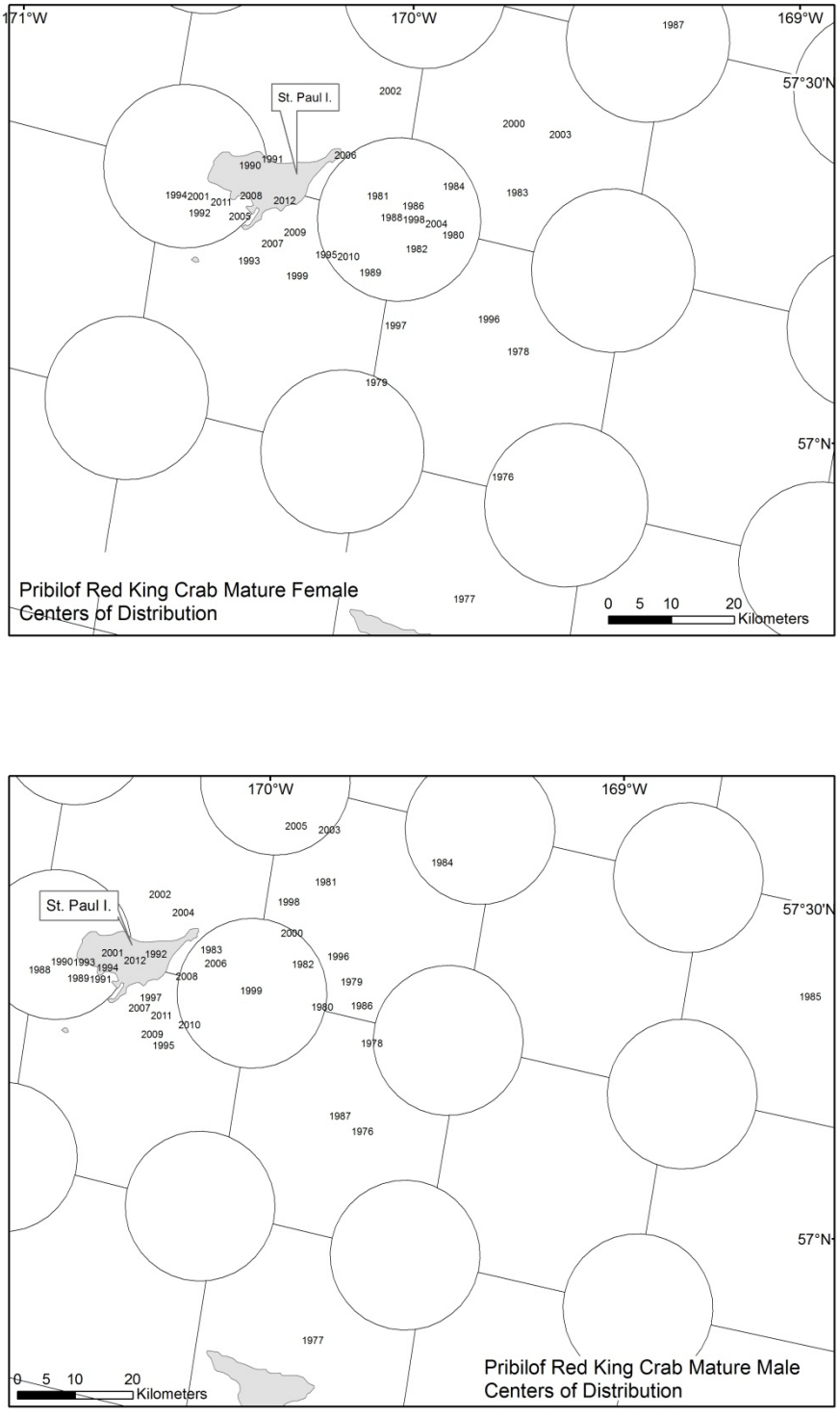


Figure 26. -- Centers of stock distribution of Pribilof Islands female and male red king crab (*Paralithodes camtschaticus*) from 1975 to 2012.

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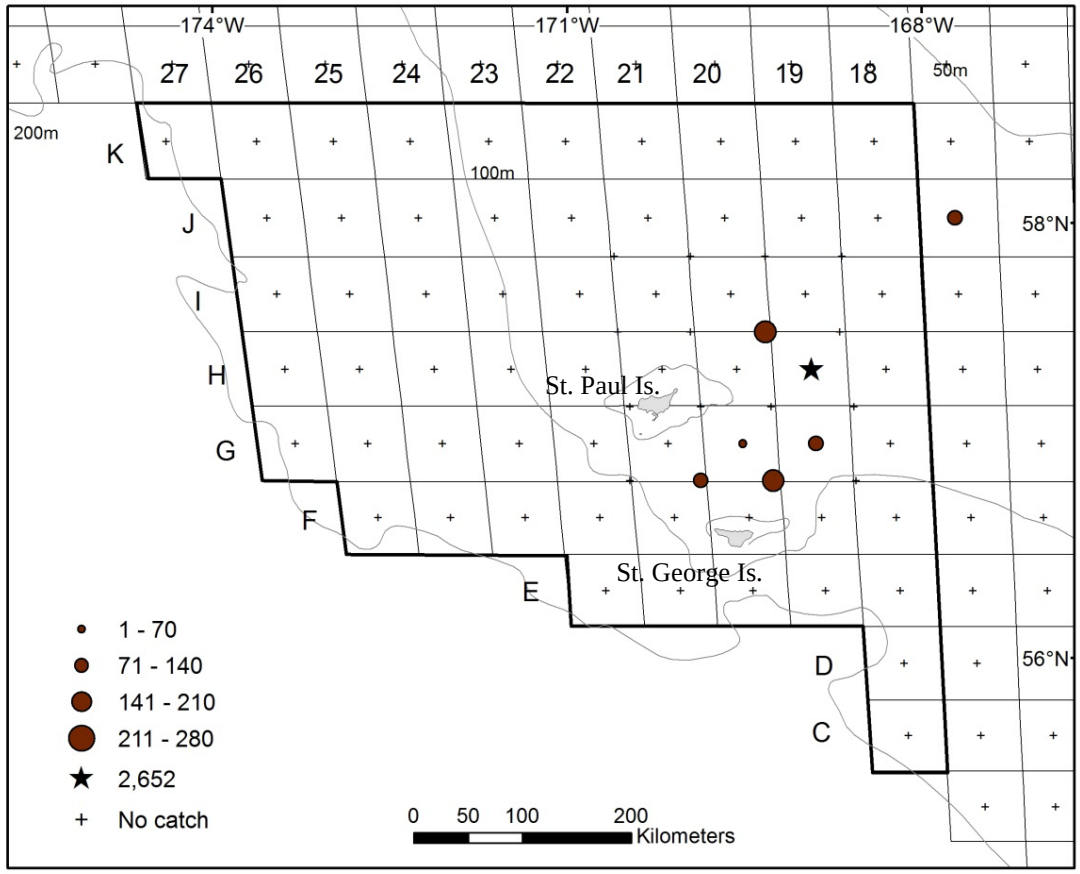


Figure 27. -- Total density (number nmi^{-2}) of blue king crab (*Paralithodes platypus*) at each station sampled in the Pribilof District in 2012.The outlined area depicts the management district.

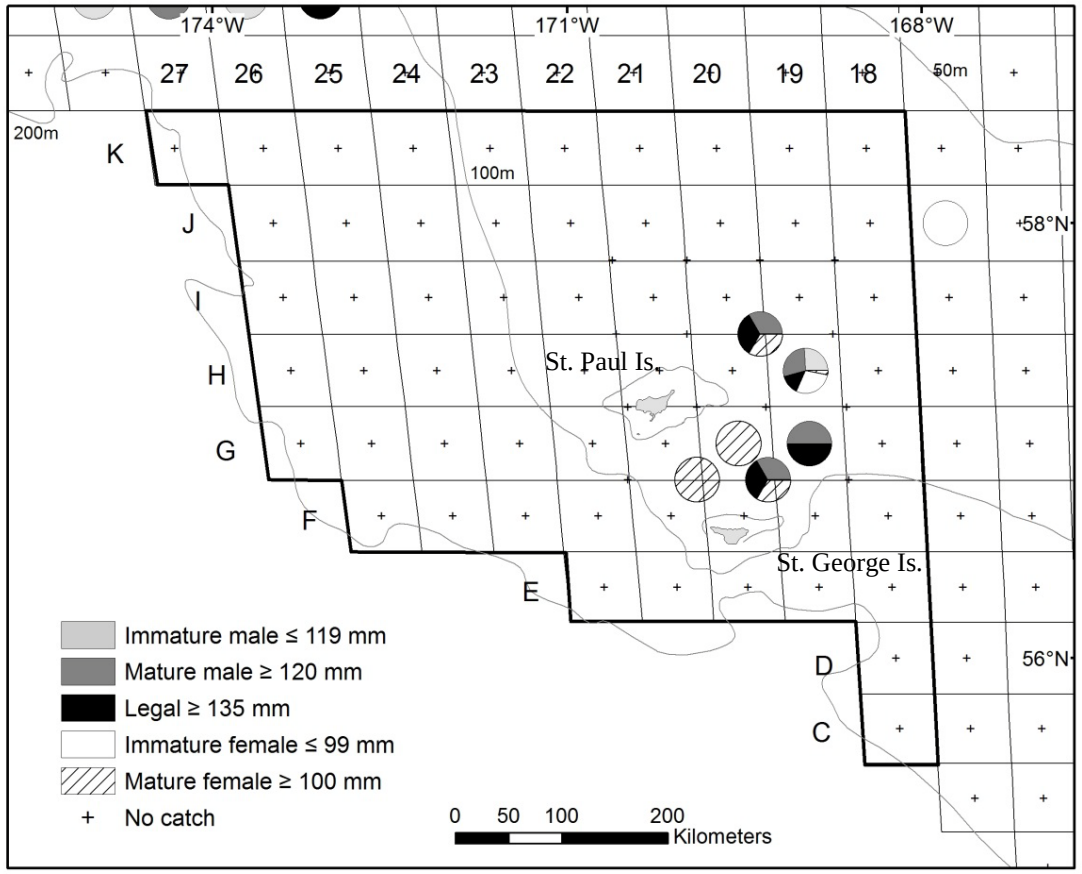


Figure 28. -- Percentage of male and female blue king crab (*Paralithodes platypus*) size categories at each station of the Pribilof District in 2012. The outlined area depicts stations within the management district.

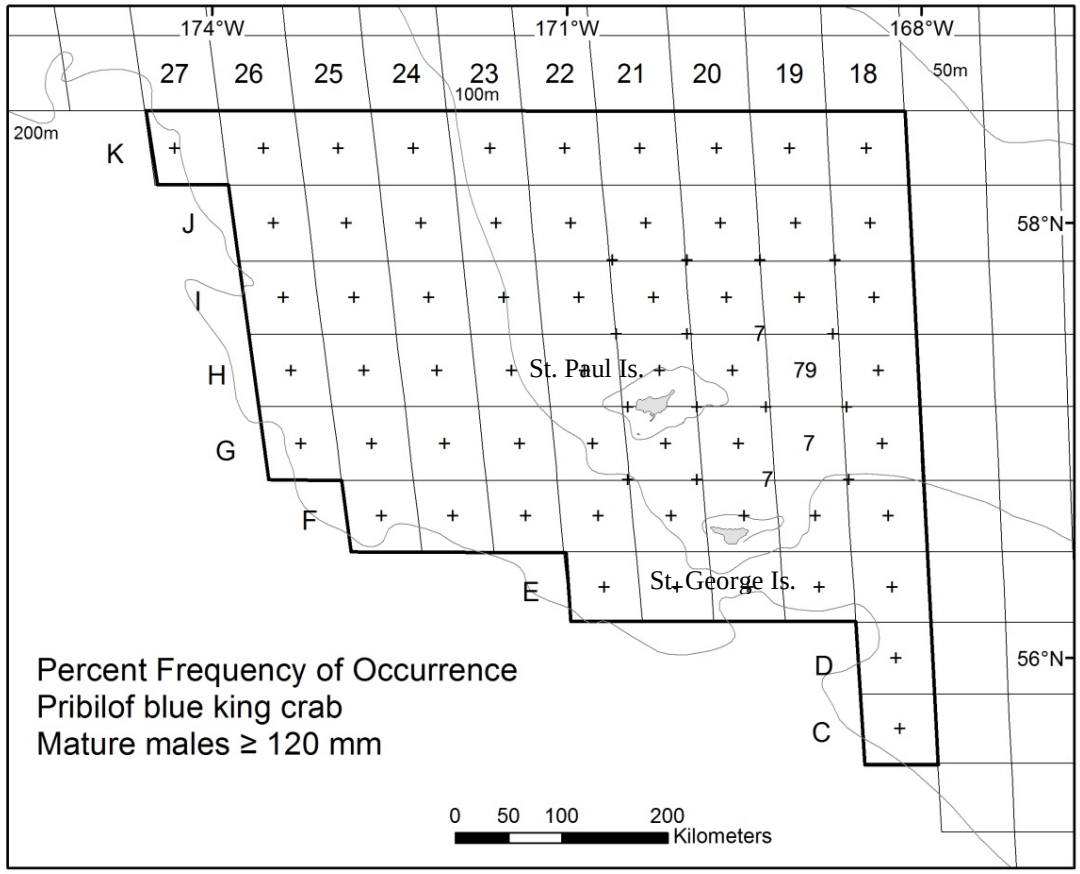


Figure 29. -- Percent frequency of occurrence of mature male blue king crab (*Paralithodes platypus)* at stations sampled in the 2012 Pribilof District.

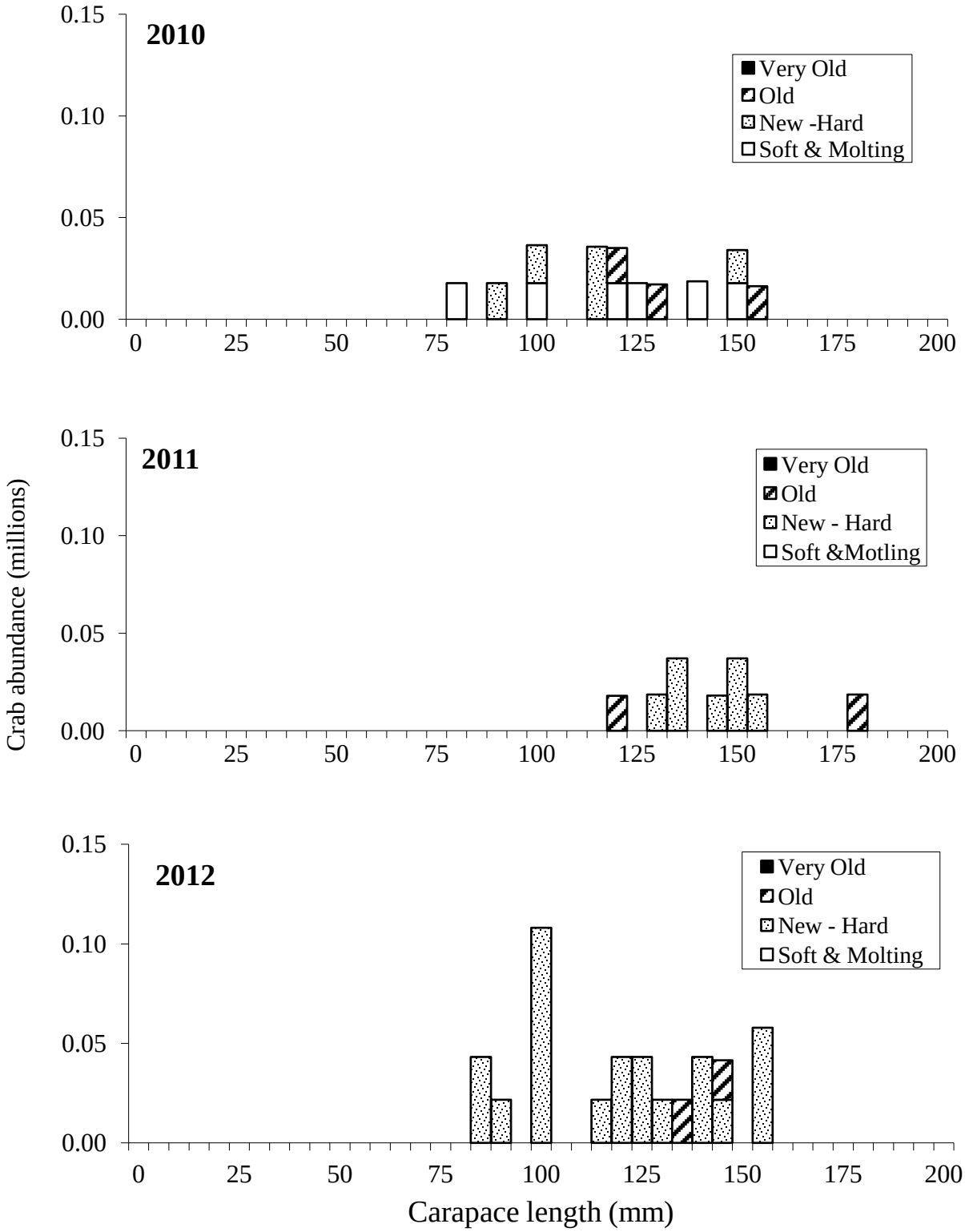


Figure 30. -- Size-frequency by shell condition of Pribilof District male blue king crab (*Paralithodes platypus*) by 5 mm length classes, 2010-2012.

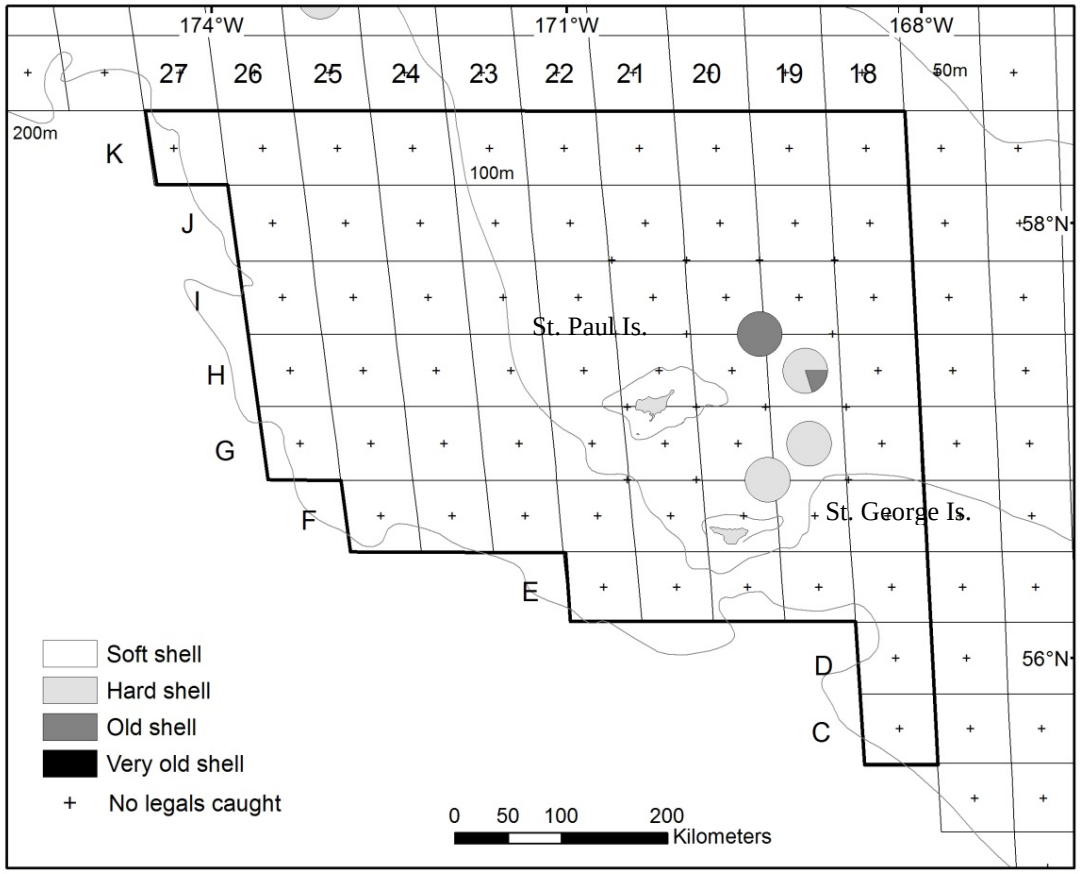


Figure 31. -- Distribution of legal-sized male blue king crab (*Paralithodes platypus*) caught at each station of the Pribilof District in 2012 and distinguished by shell condition. The outlined area depicts stations within the management district.

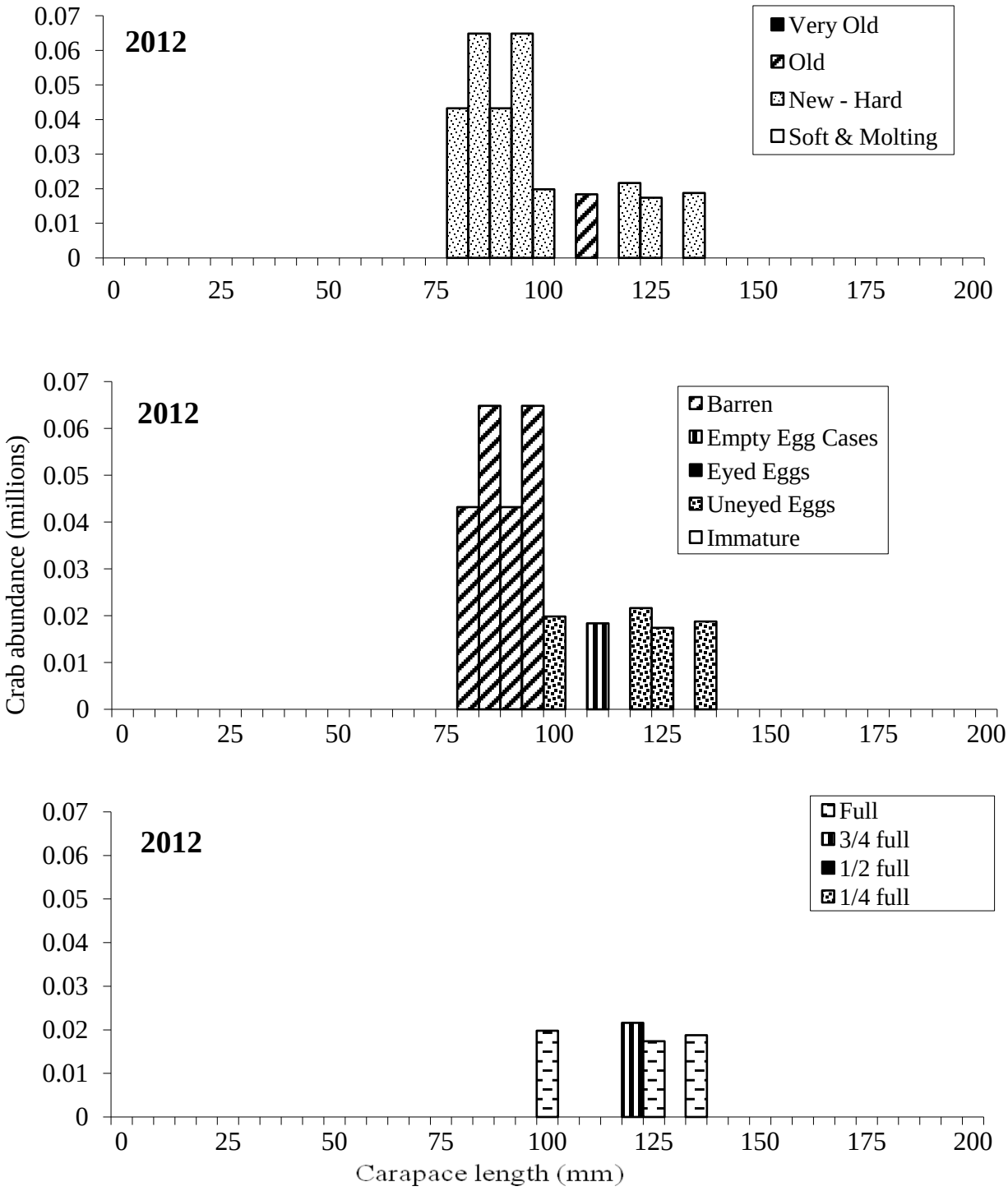
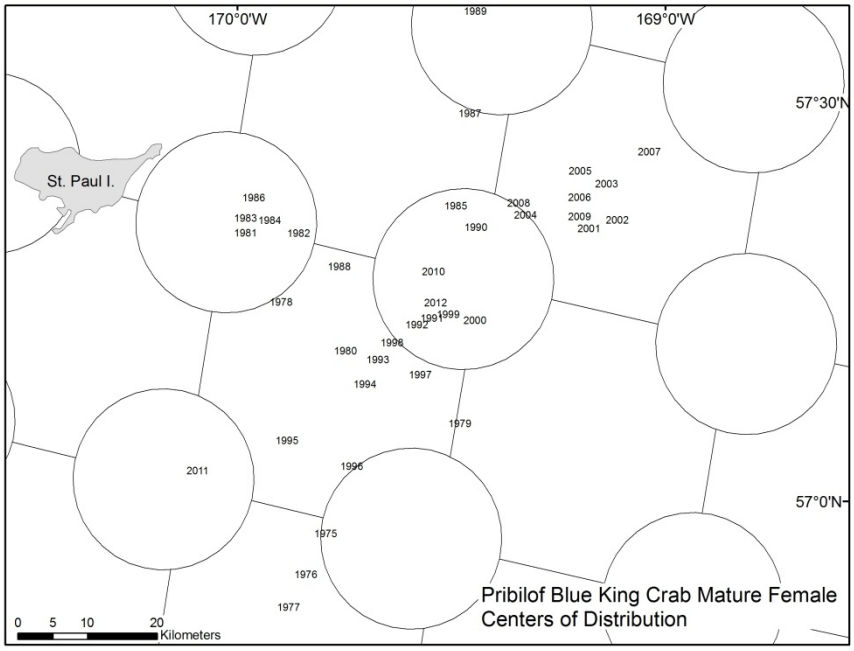


Figure 32. -- Size-frequency by shell condition, egg condition, and clutch fullness of Pribilof District female blue king crab (*Paralithodes platypus*) by 5 mm length classes in 2012.



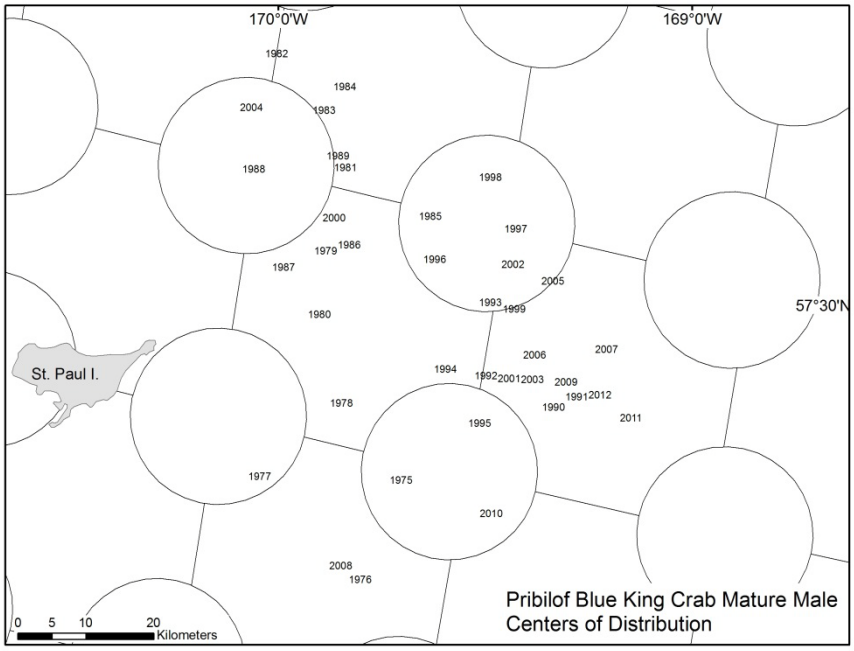


Figure 33. -- Centers of stock distribution of Pribilof Islands female and male blue king crab (*Paralithodes platypus*) from 1975 to 2012.

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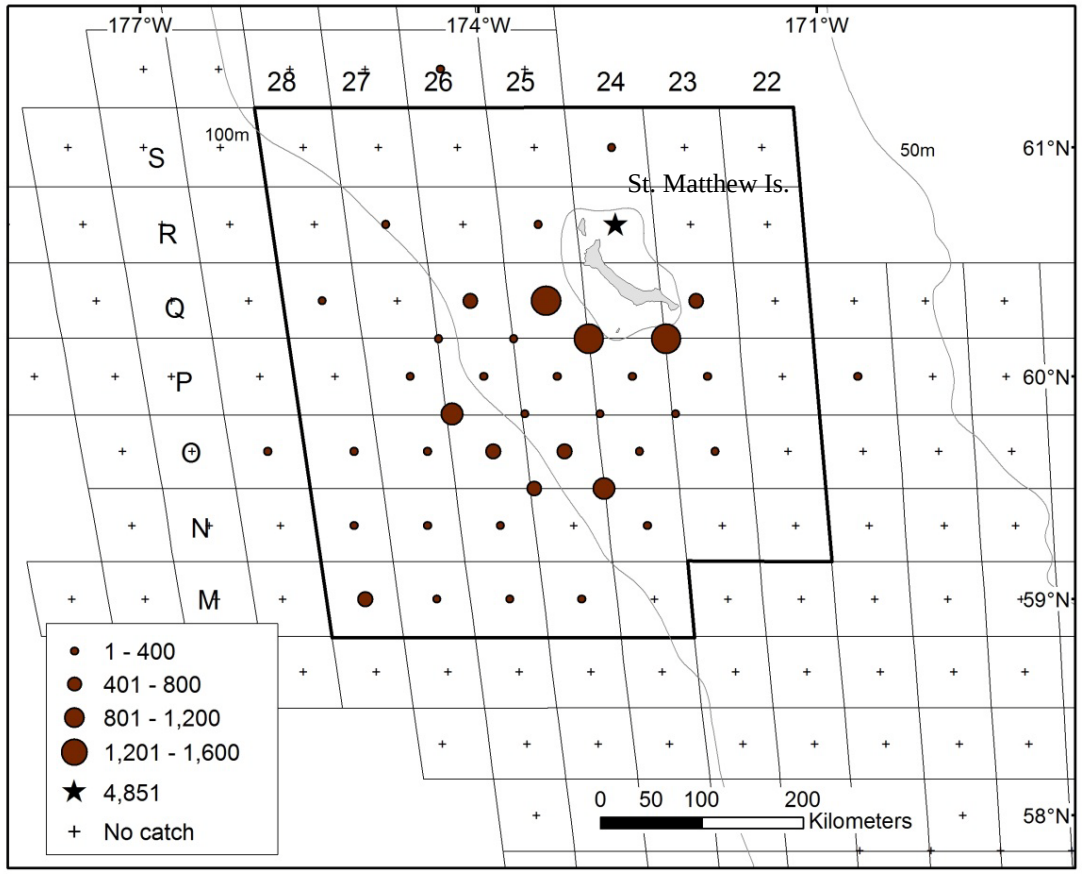


Figure 34. -- Total density (number nmi^{-2}) of blue king crab (*Paralithodes platypus*) at each station sampled in the St. Matthew Island Section of the Northern District in 2012. Data depicted by circles are equal interval densities, while stars are densities larger than the standard scale. The outlined area depicts stations within the St. Matthew Island Section sampling strata.

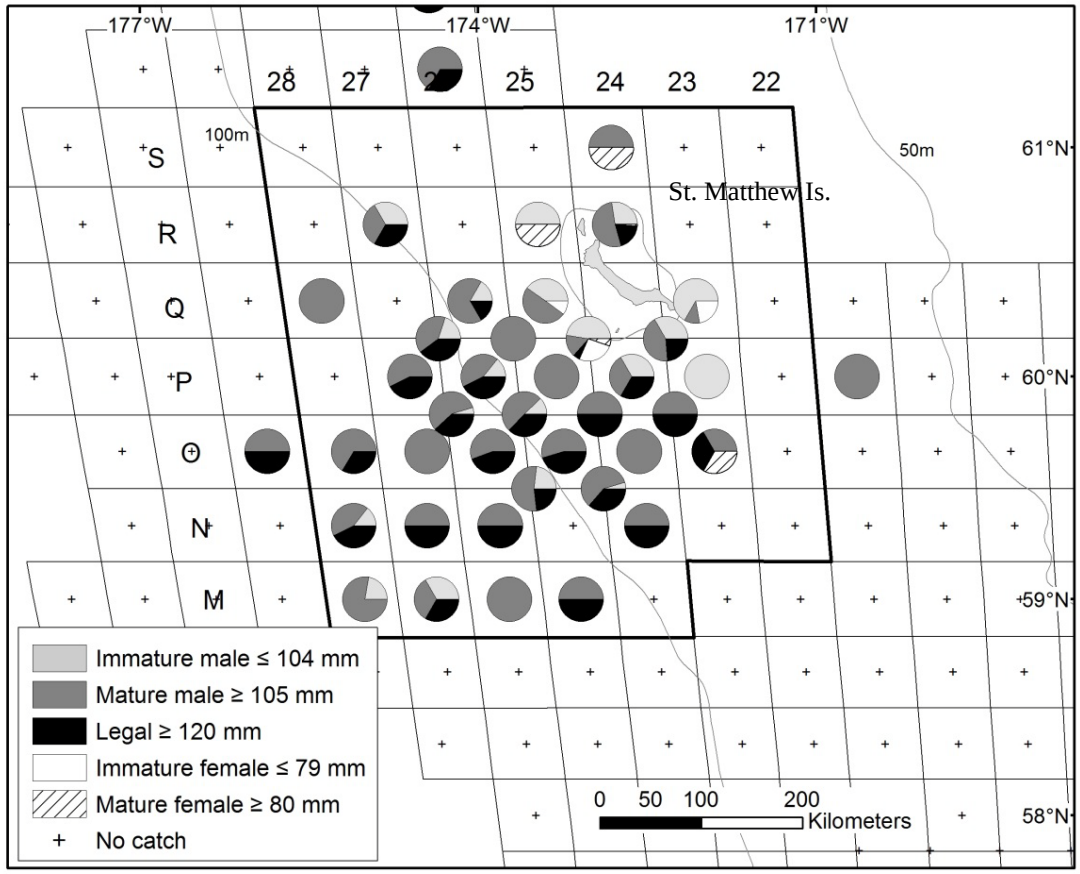


Figure 35. -- Percentage of male and female blue king crab (*Paralithodes platypus*) size categories at each station of the St. Matthew Island Section of the Northern District in 2012. The outlined area depicts stations within the St. Matthew Island Section sampling strata.

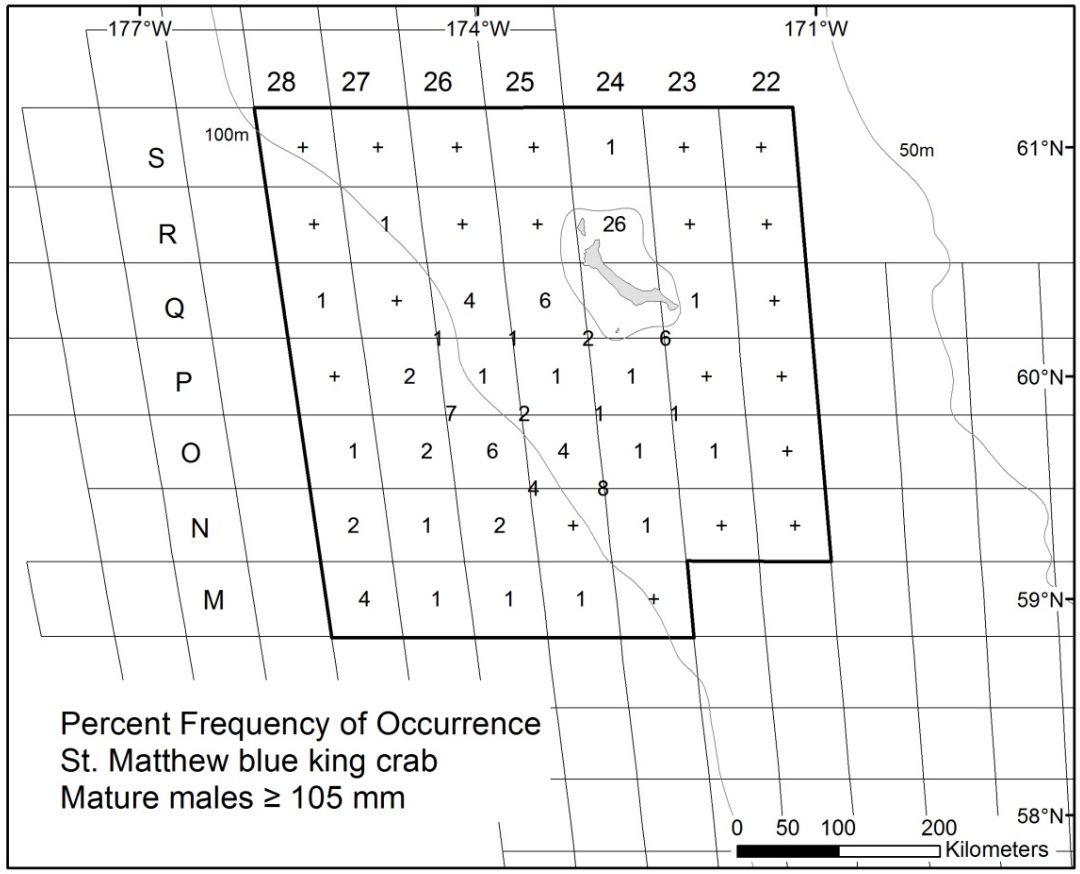


Figure 36. -- Percent frequency of occurrence of mature male blue king crab (*Paralithodes platypus)* at stations in the 2012 St. Matthew Island Section sampling strata of the Northern District.

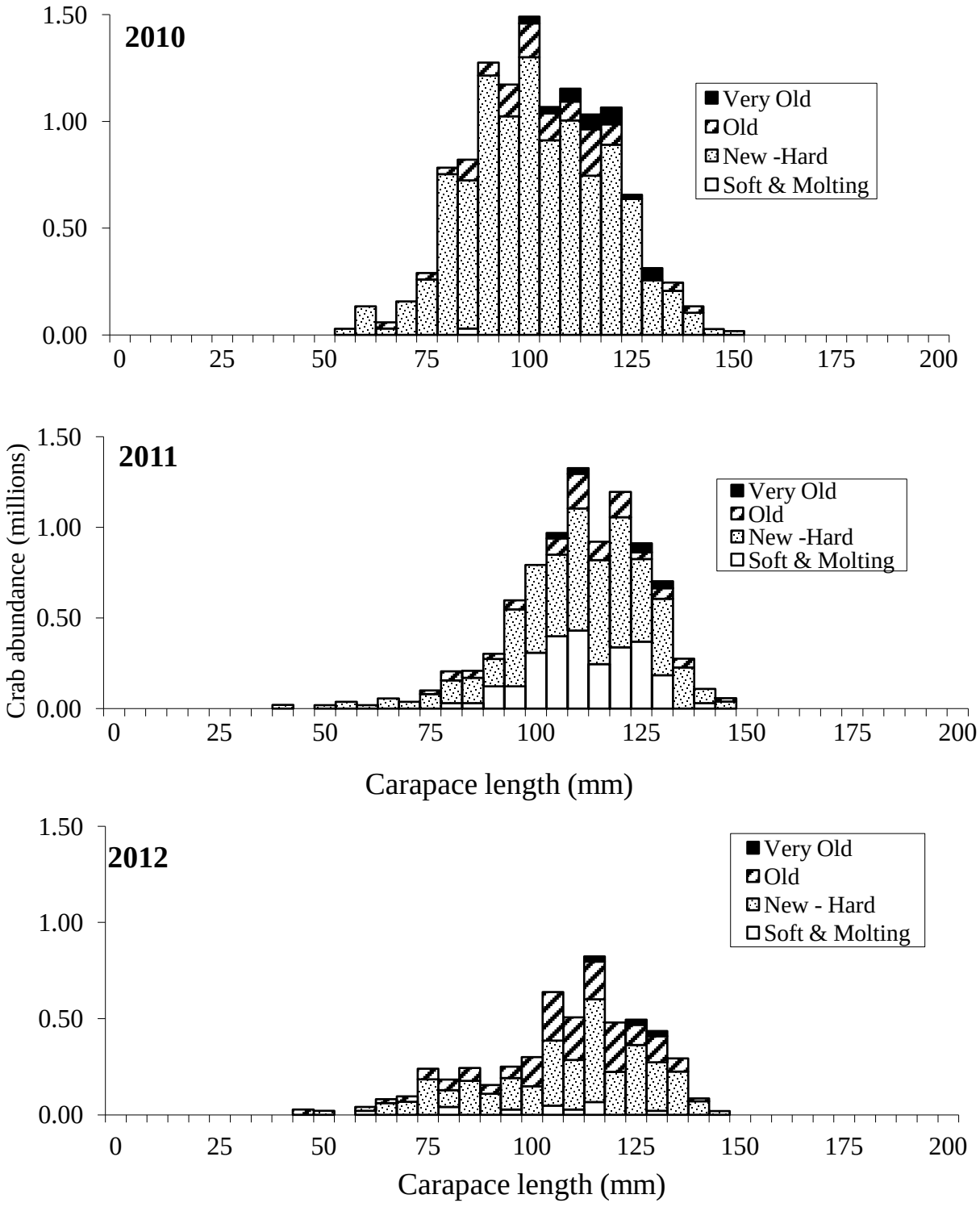


Figure 37. -- Size-frequency by shell condition of St. Matthew Island Section male blue king crab (*Paralithodes platypus*) by 5 mm length classes, 2010-2012.

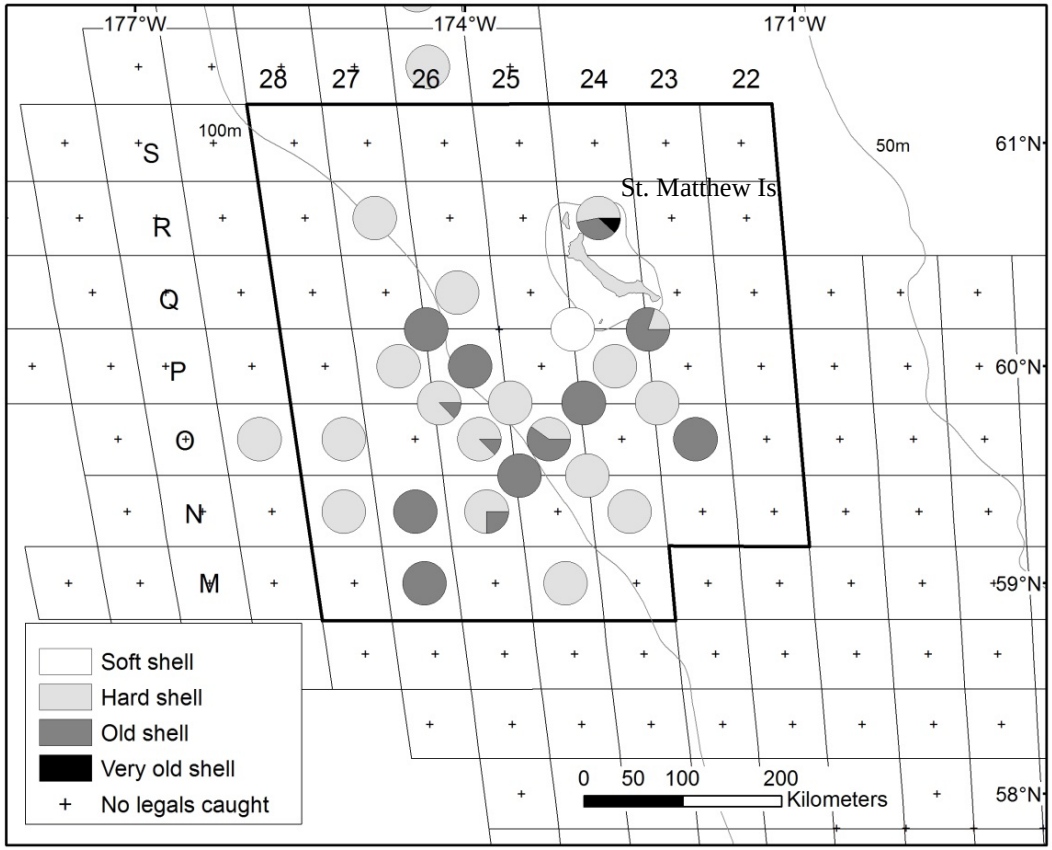


Figure 38. -- Distribution of legal-sized male blue king crab (*Paralithodes platypus*) caught at each station of the St. Matthew Island Section of the Northern District in 2012 and distinguished by shell condition. The outlined area depicts stations within the St. Matthew Island Section sampling strata.

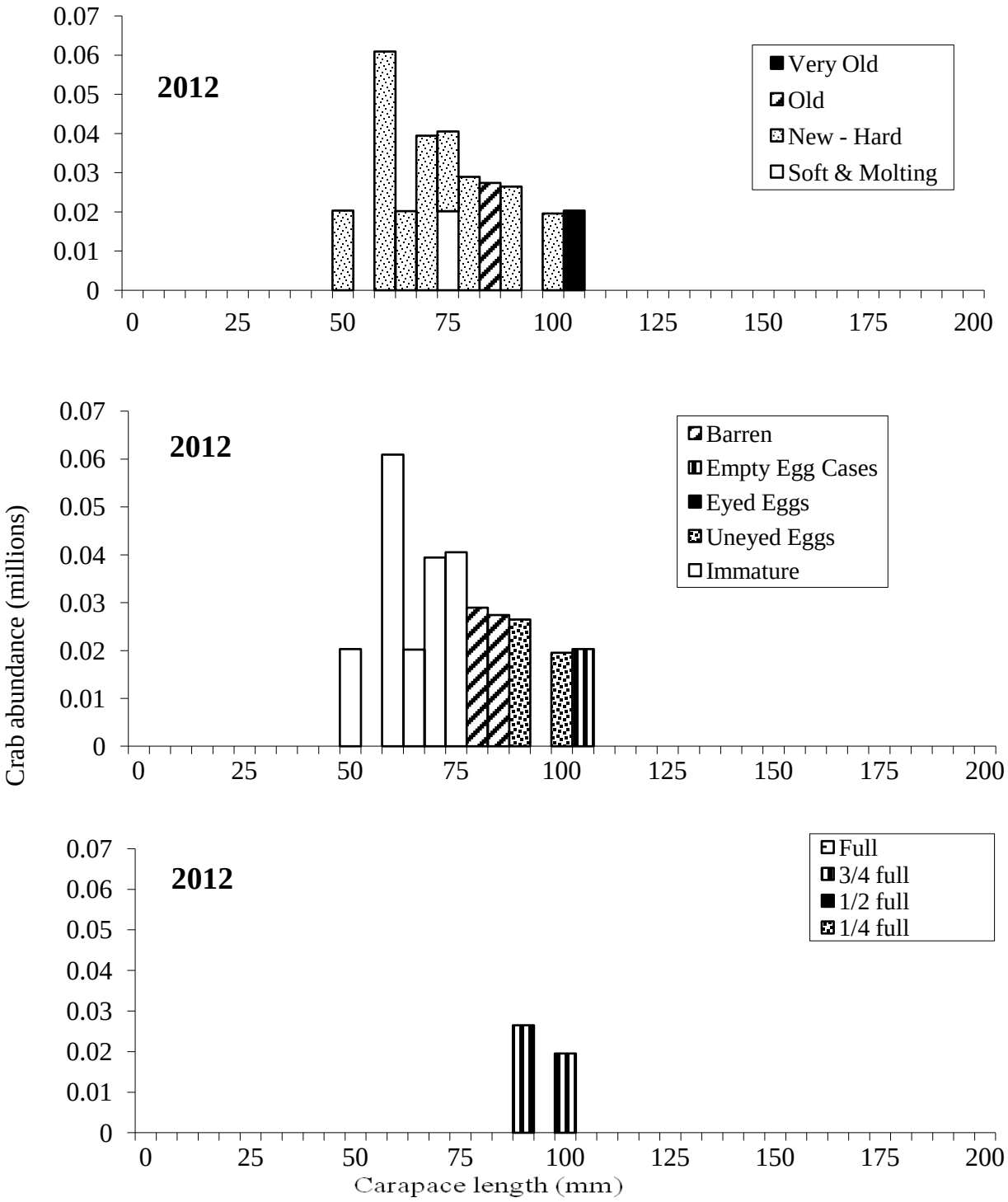
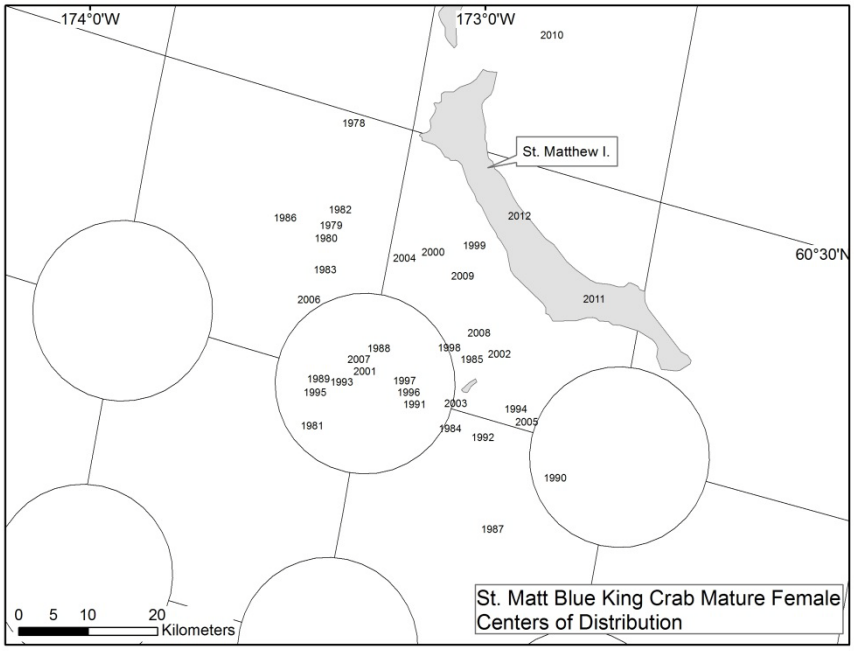


Figure 39. -- Size-frequency by shell condition, egg condition, and clutch size of St. Matthew Island Section female blue king crab (*Paralithodes platypus*) by 5 mm length classes in 2012.



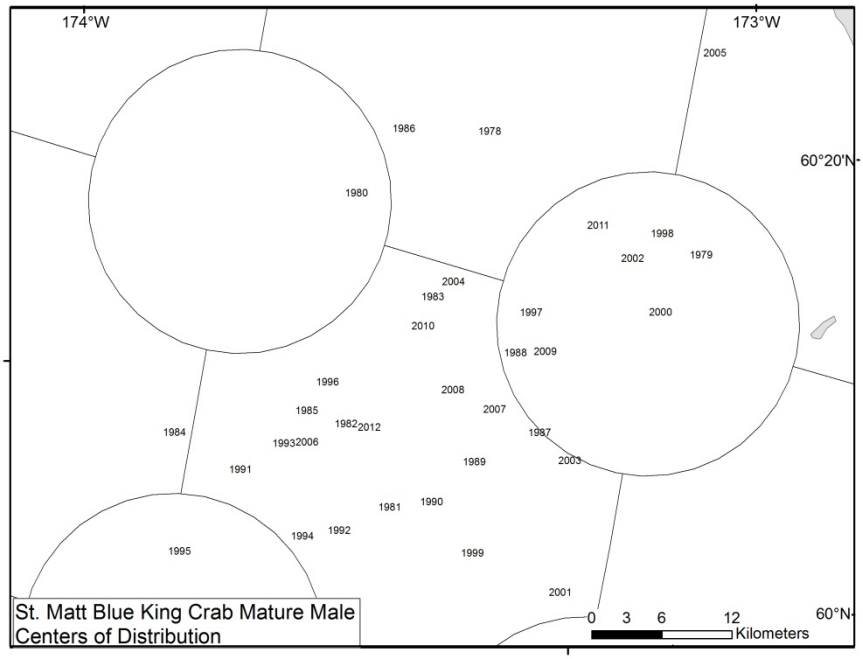


Figure 40. -- Centers of stock distribution of St. Matthew Island female and male blue king crab (*Paralithodes platypus*) from 1975 to 2012.

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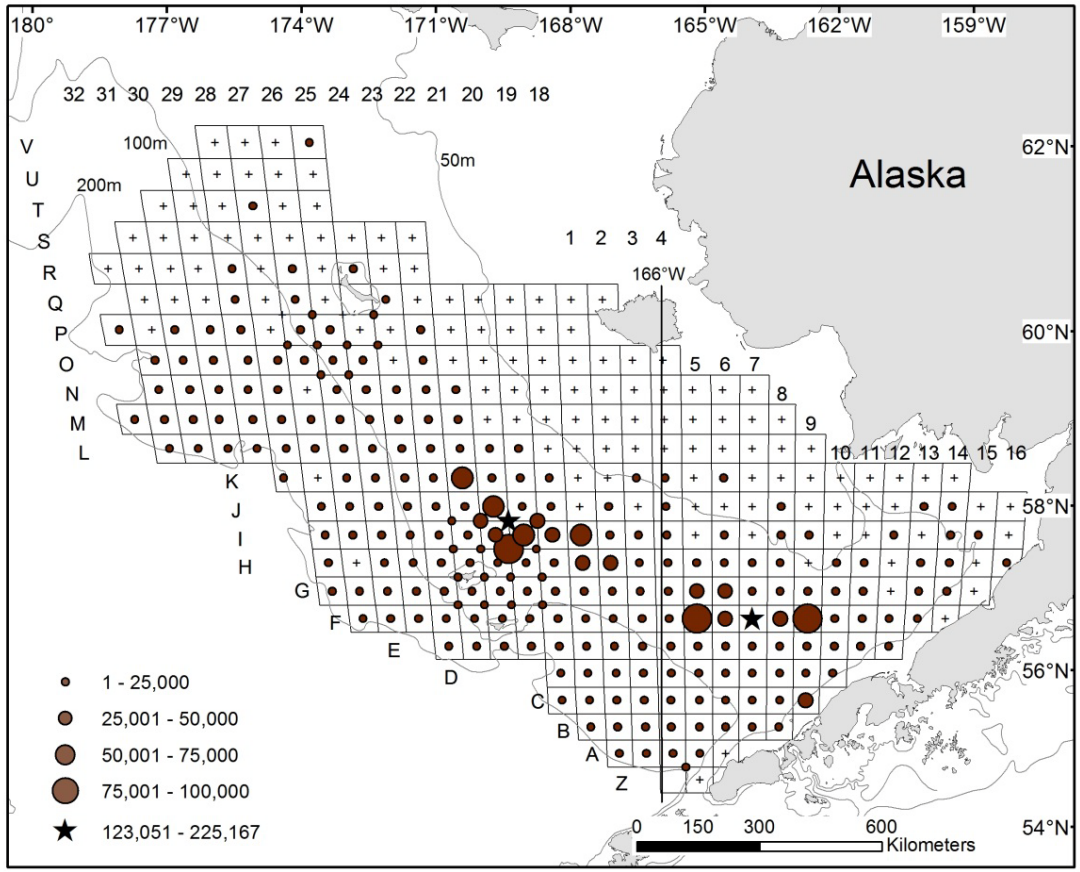


Figure 41. -- Total density (number nmi^{-2}) of Tanner crab (*Chionoecetes bairdi)* at each station sampled in 2012. Data depicted by circles are crab densities at equal intervals, while stars are densities larger than the standard scale.

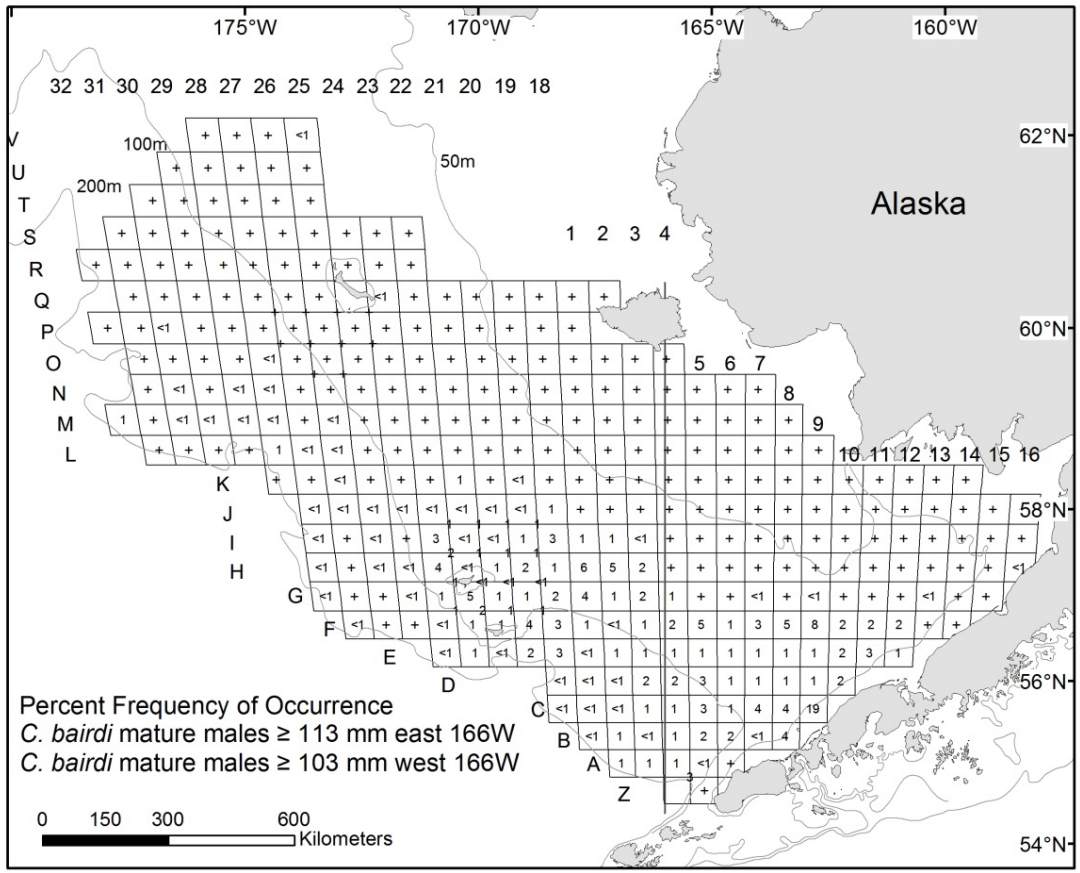


Figure 42. -- Percent frequency of occurrence of legal-sized male Tanner crab (*Chionoecetes bairdi)* at stations sampled in the 2012.

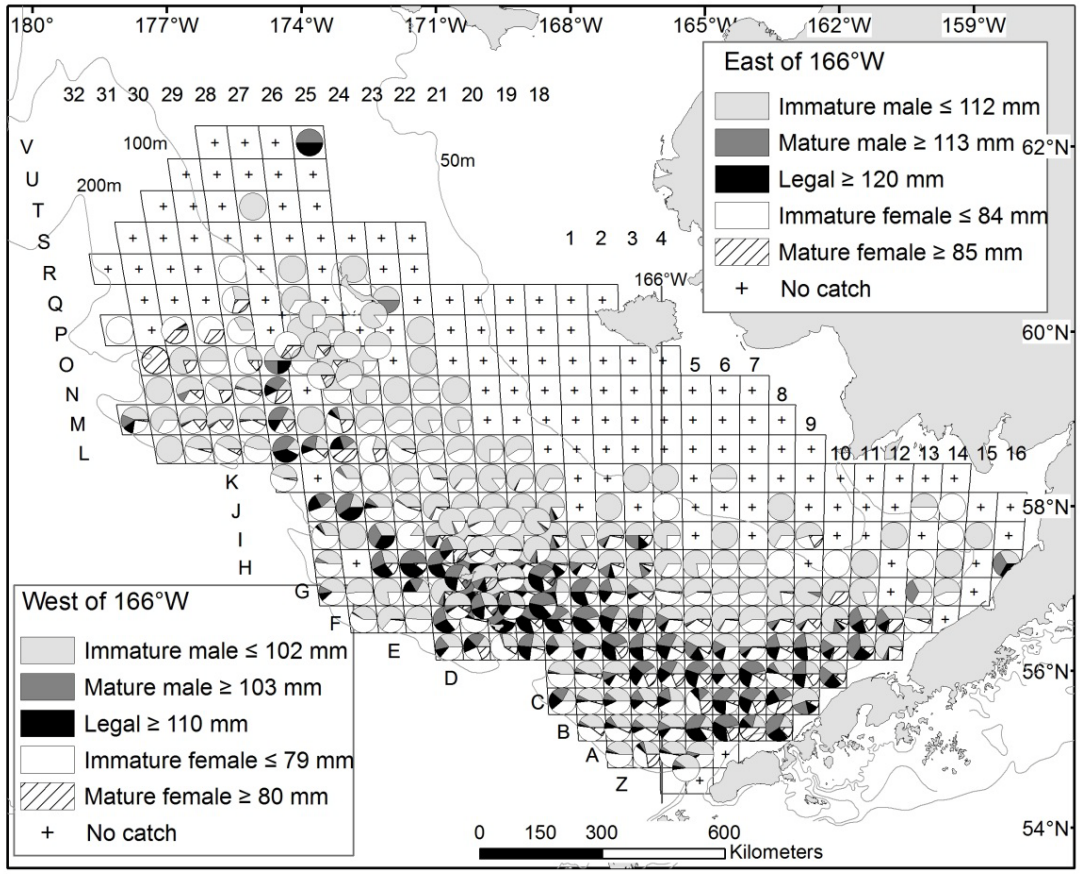


Figure 43. -- Percentage of male and female Tanner crab (*Chionoecetes bairdi*) size categories at each station sampled in 2012. Tanner crab males ≥ 138 mm CW east of 166° W and ≥ 125 mm CW west of 166° W are preferred size categories while males ≥ 120 mm and ≥ 110 mm CW are the legal-size categories for east and west of 166° W, respectively.

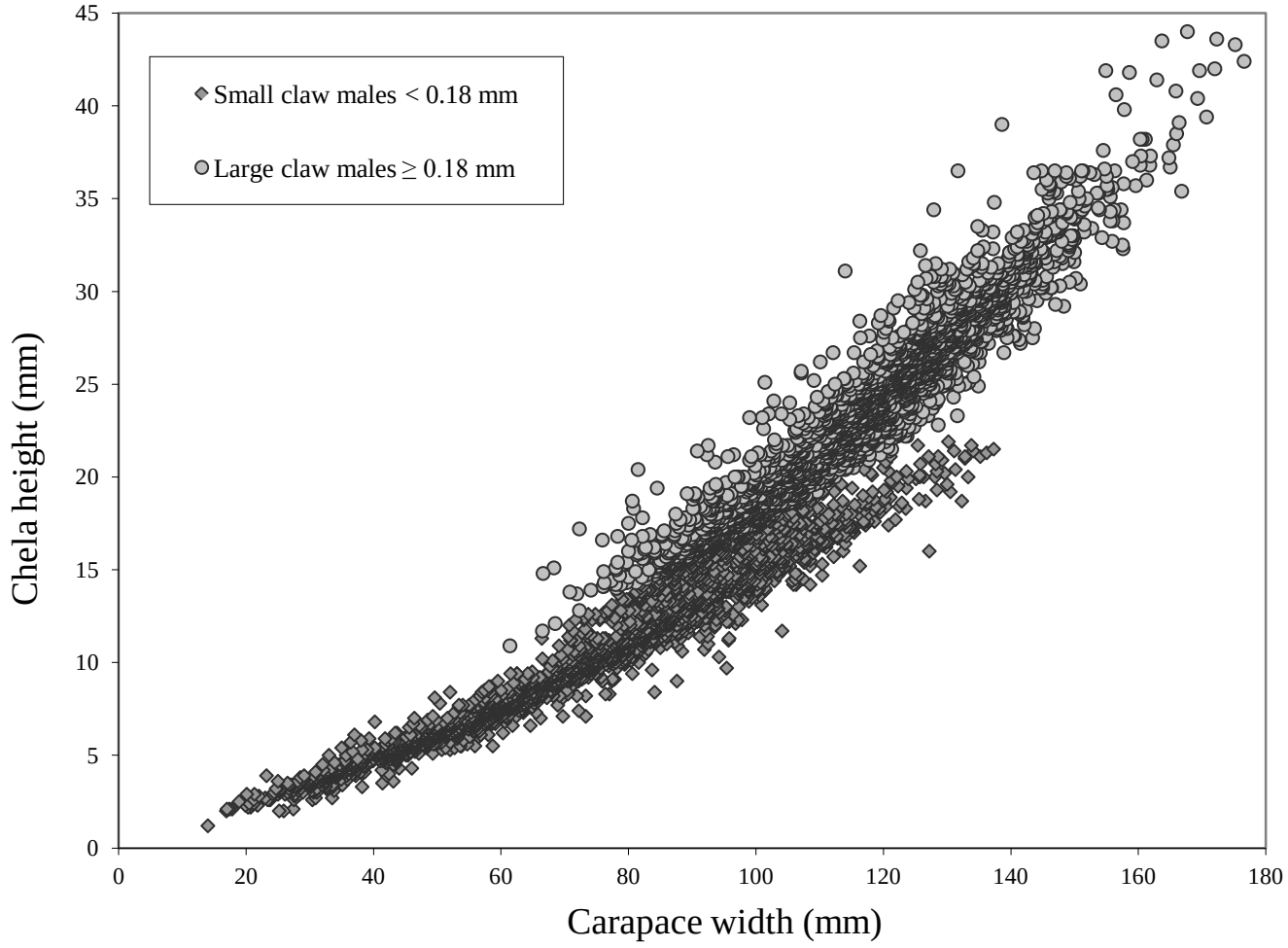


Figure 44. -- Male Tanner crab (*Chionoecetes bairdi*) chela height versus carapace width measurements collected on the 2008, 2010, and 2012 National Marine Fisheries Service eastern Bering Sea bottom trawl surveys.

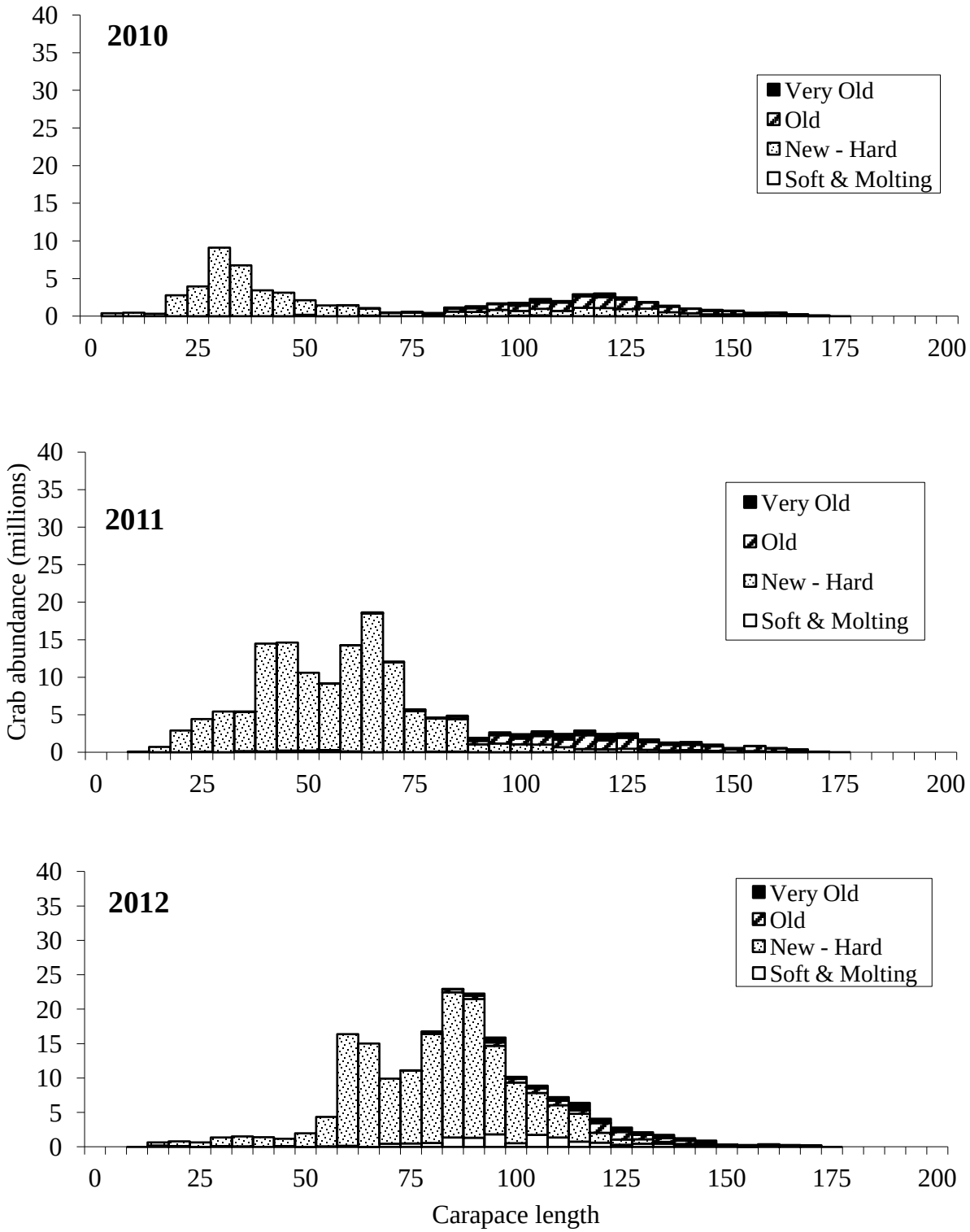


Figure 45. -- Size-frequency by shell condition of male Tanner crab (*Chionoecetes bairdi*) east of 166° by 5 mm width classes of all districts combined, 2010-2012.

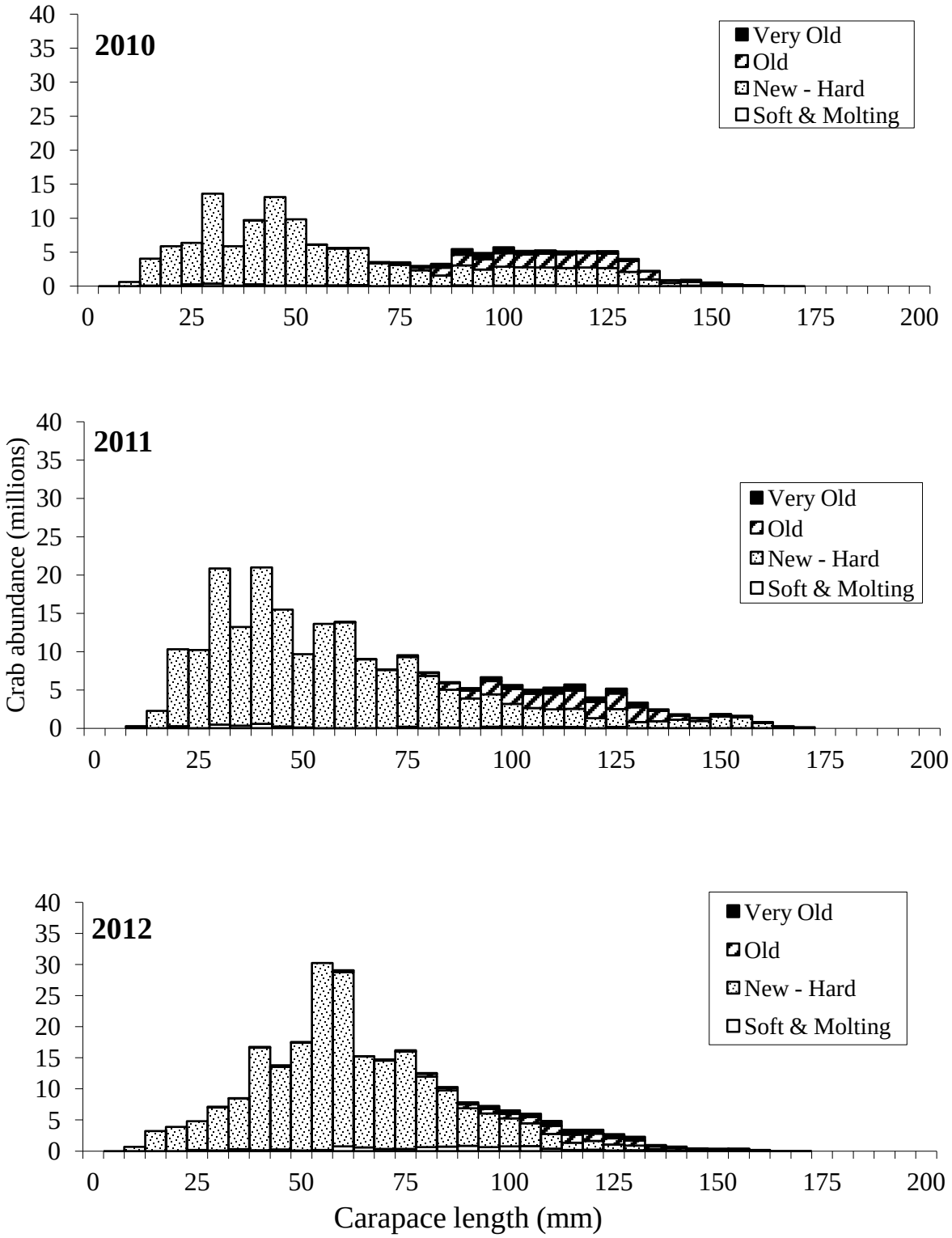


Figure 46. -- Size-frequency by shell condition of male Tanner crab (*Chionoecetes bairdi*) west of 166° by 5 mm width classes of all districts combined, 2010-2012.

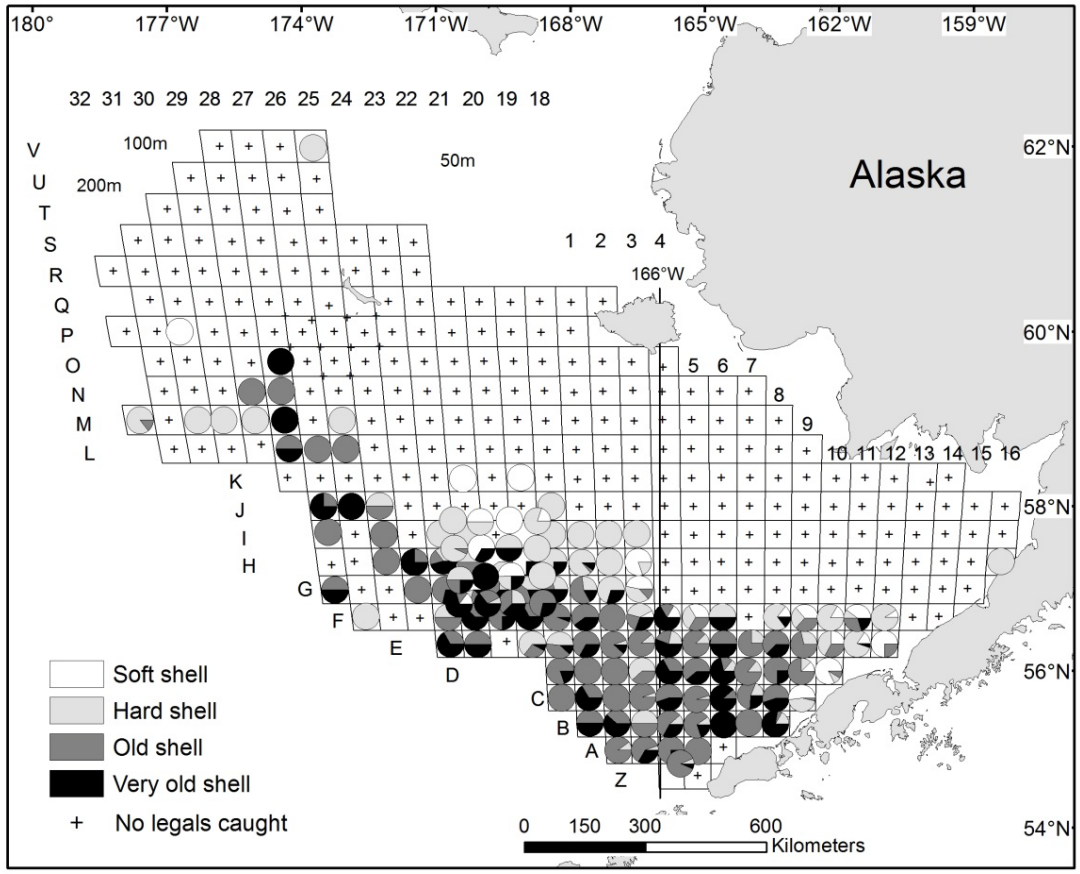


Figure 47. -- Distribution of legal-sized male Tanner crab (*Chionoecetes bairdi*) caught at each station in 2012 and distinguished by shell condition. Tanner male crab ≥ 120 mm and ≥ 110 mm CW are the legal-size categories for east and west of 166° W, respectively.

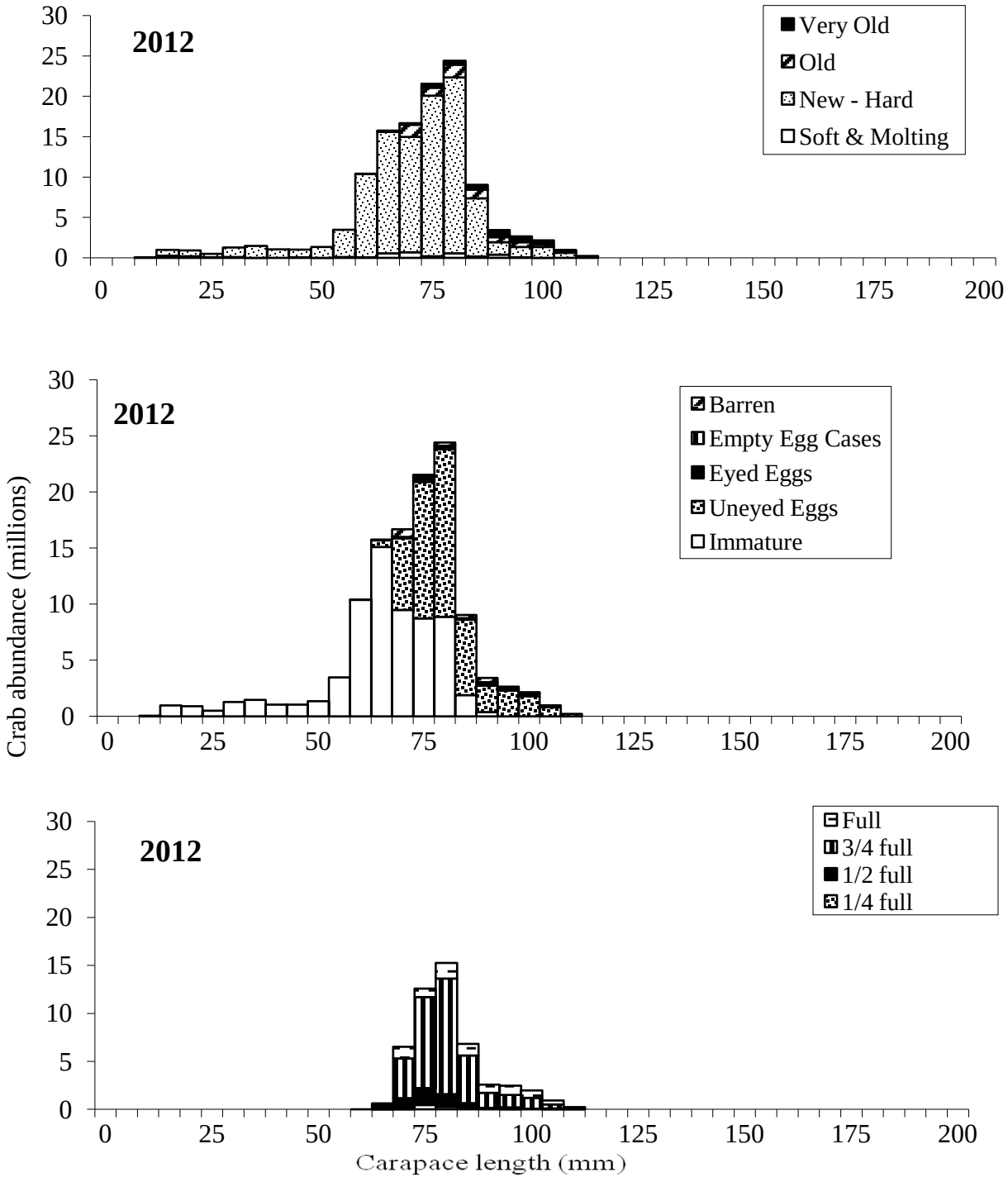


Figure 48. -- Size-frequency by shell condition, egg condition, and clutch fullness of female Tanner crab (*Chionoecetes bairdi*) east of 166° by 5 mm width classes of all districts

combined in 2012.

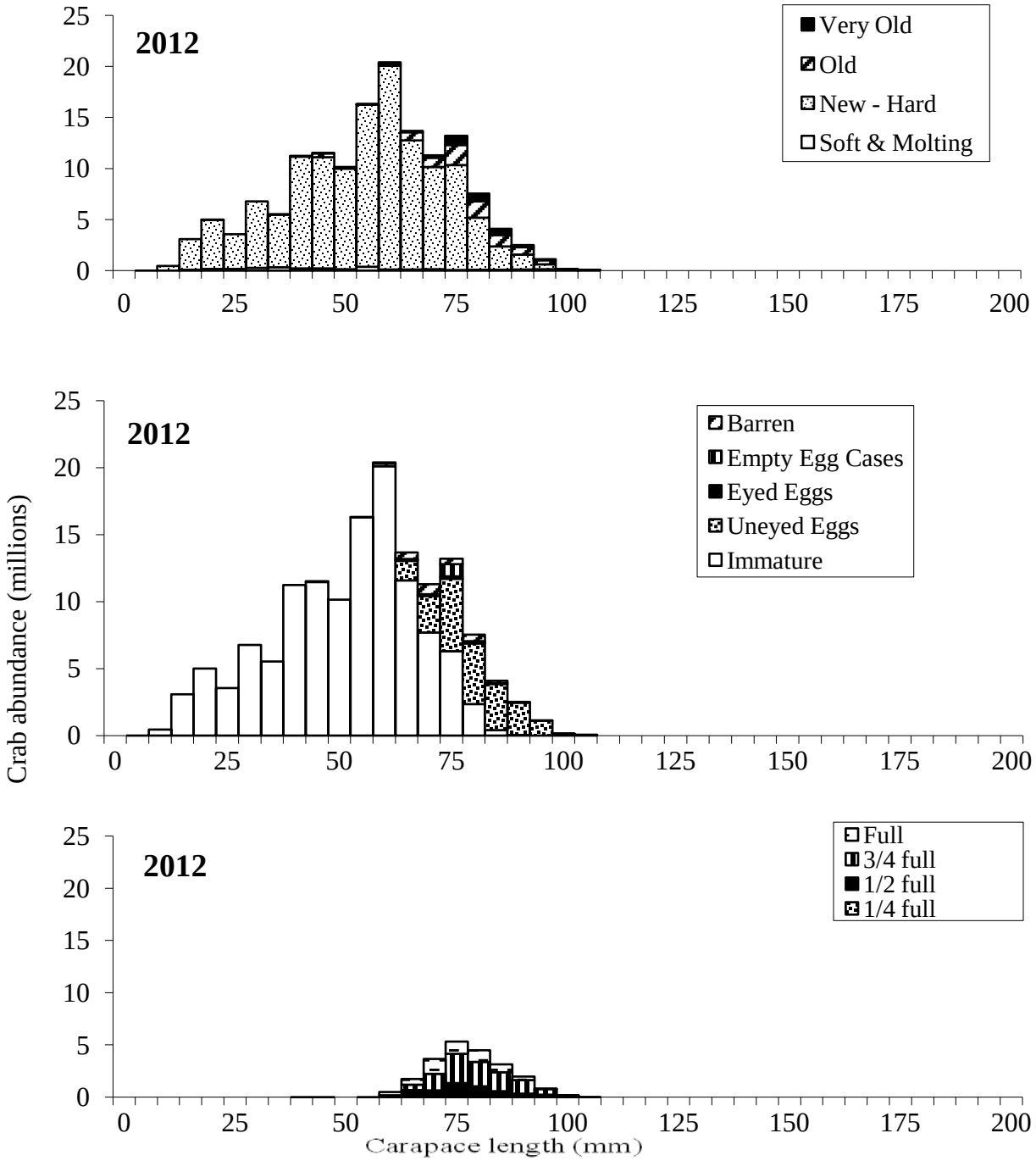
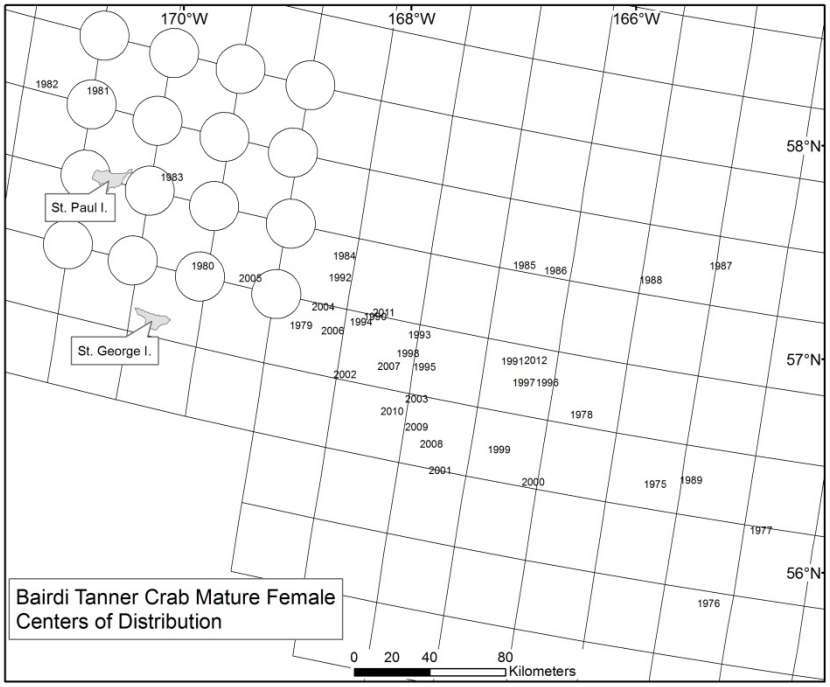


Figure 49. -- Size-frequency by shell condition, egg condition, and clutch fullness of female Tanner crab (*Chionoecetes bairdi*) west of 166° by 5 mm width classes of all districts combined in 2012.



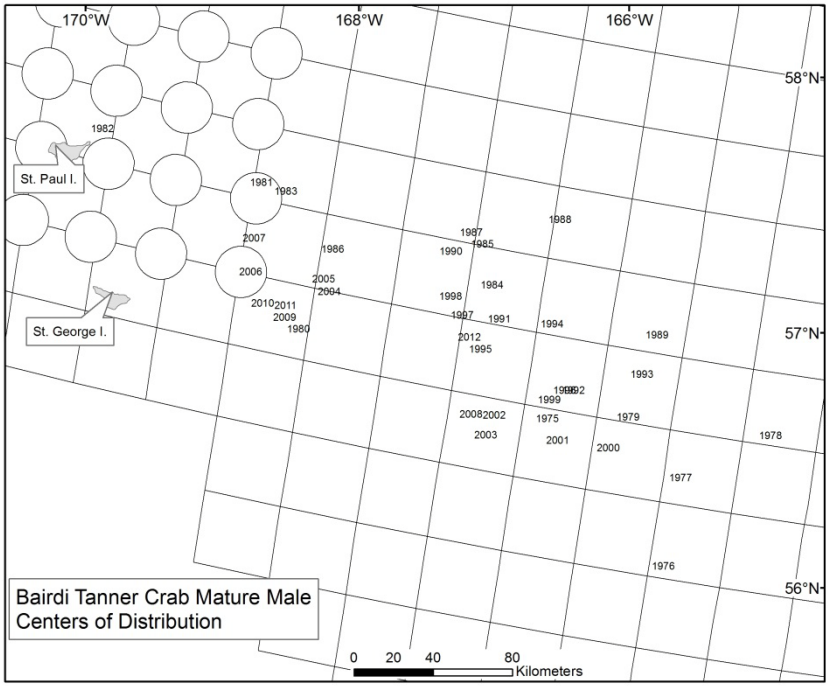


Figure 50. -- Centers of stock distribution of female and male Tanner crab (*Chionoecetes bairdi*) from 1975 to 2012.

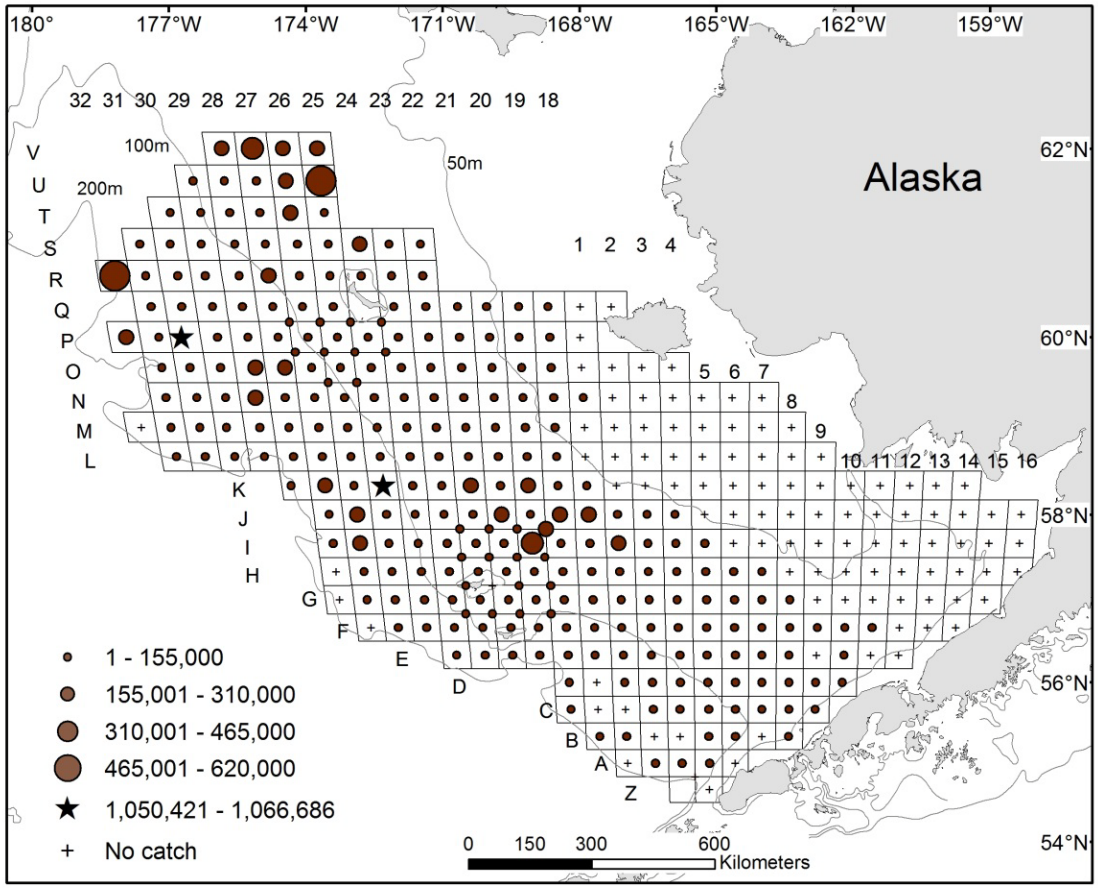


Figure 51. -- Total density (number nmi^{-2}) of snow crab (*Chionoecetes opilio*) at each station sampled in 2012. Data depicted by circles are crab densities at equal intervals.

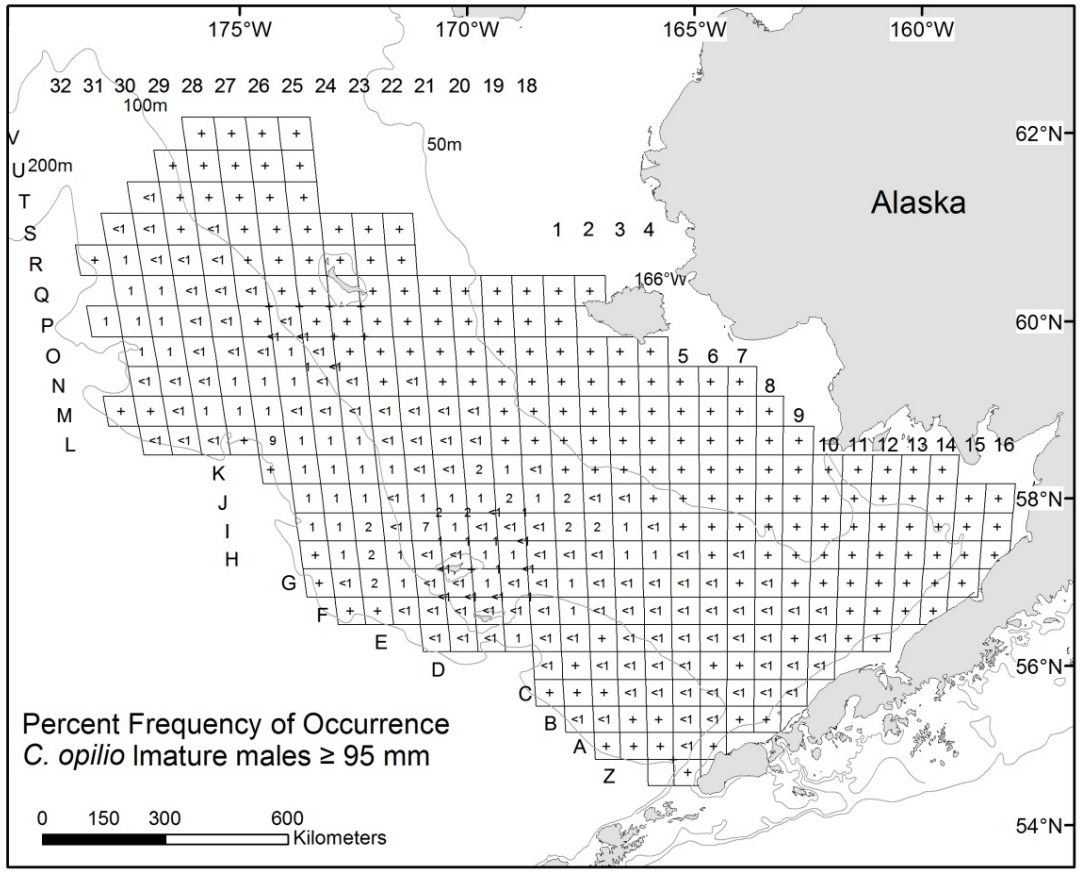


Figure 52. -- Percent frequency of occurrence of legal-sized male snow crab (*Chionoecetes opilio*) at stations sampled in the 2012.

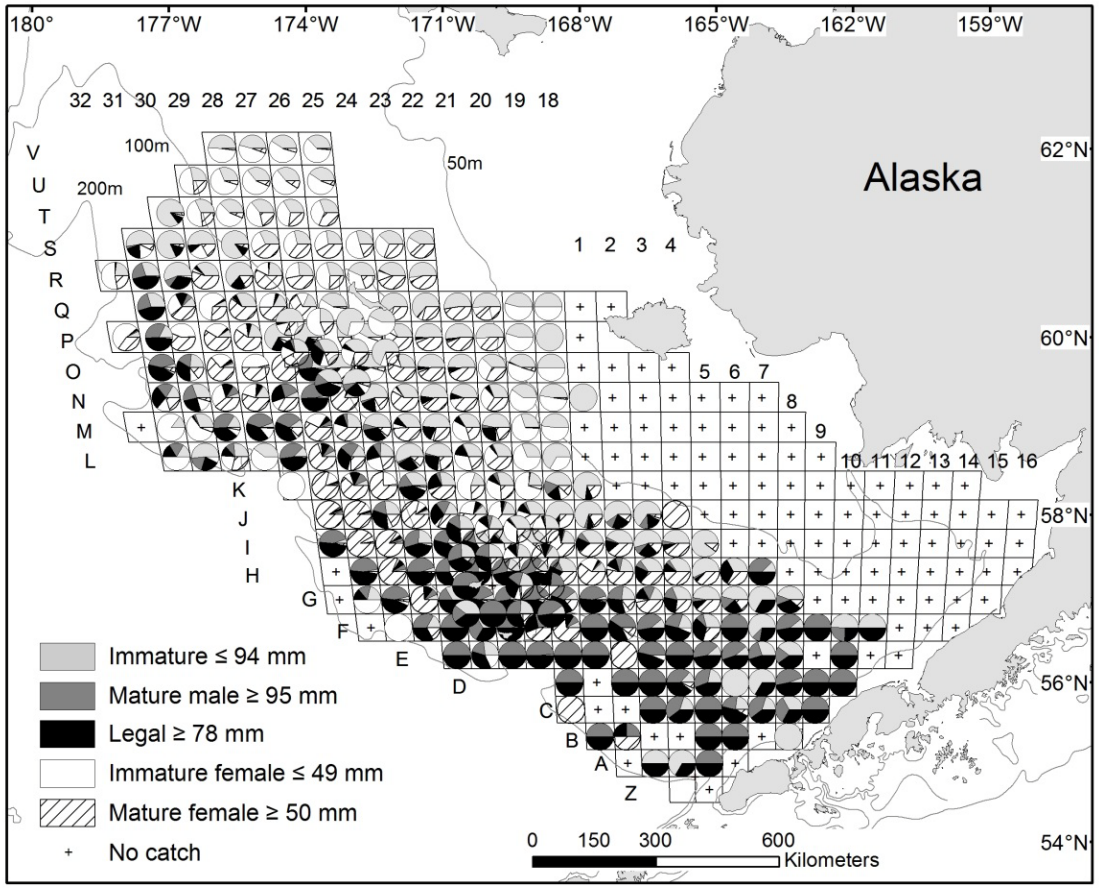


Figure 53. -- Percentage of male and female snow crab (*Chionoecetes opilio*) size categories at each station sampled in 2012.

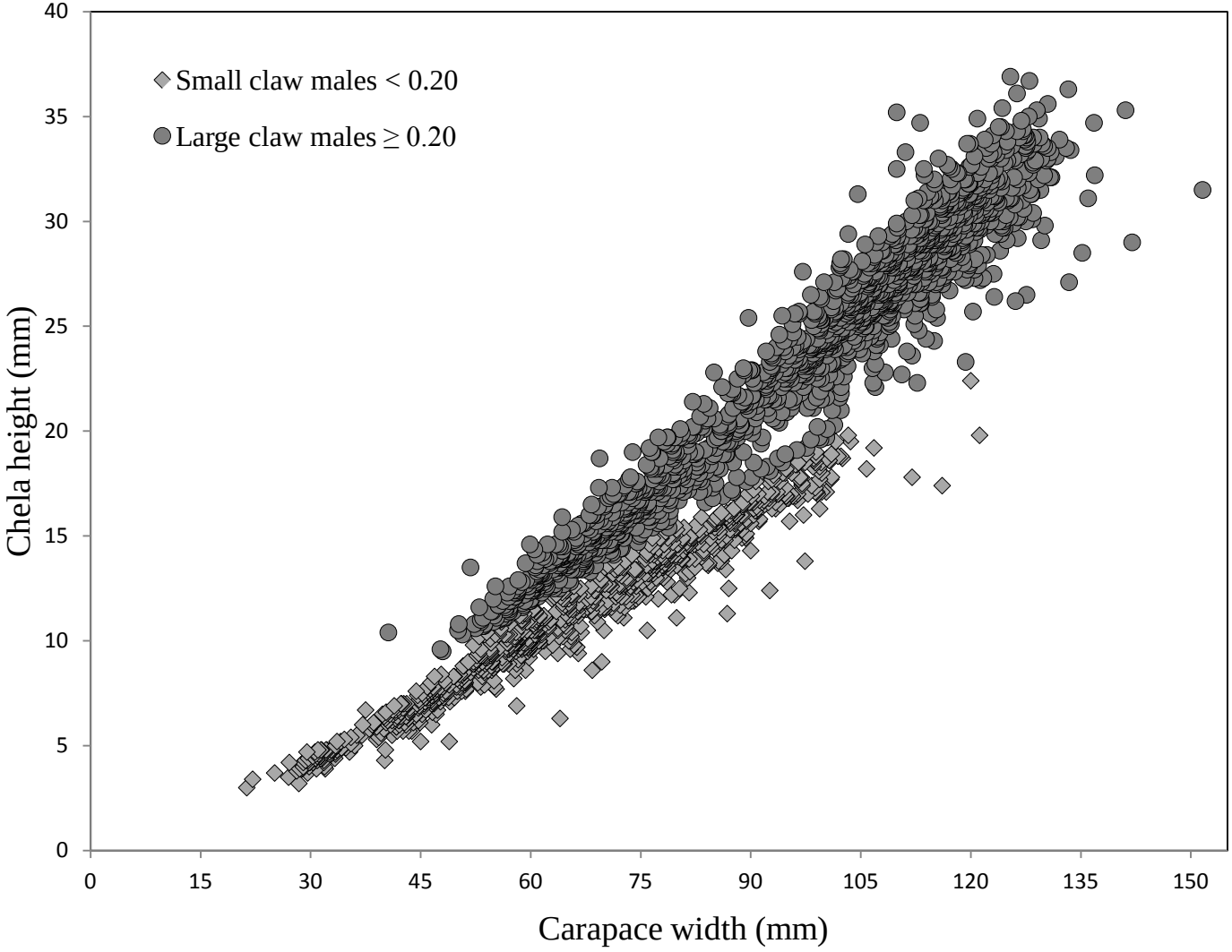


Figure 54. -- Male snow crab (*Chionoecetes opilio*) chela height versus carapace width measurements collected during the 2009 and 2011 National Marine Fisheries Service eastern Bering Sea bottom trawl surveys.

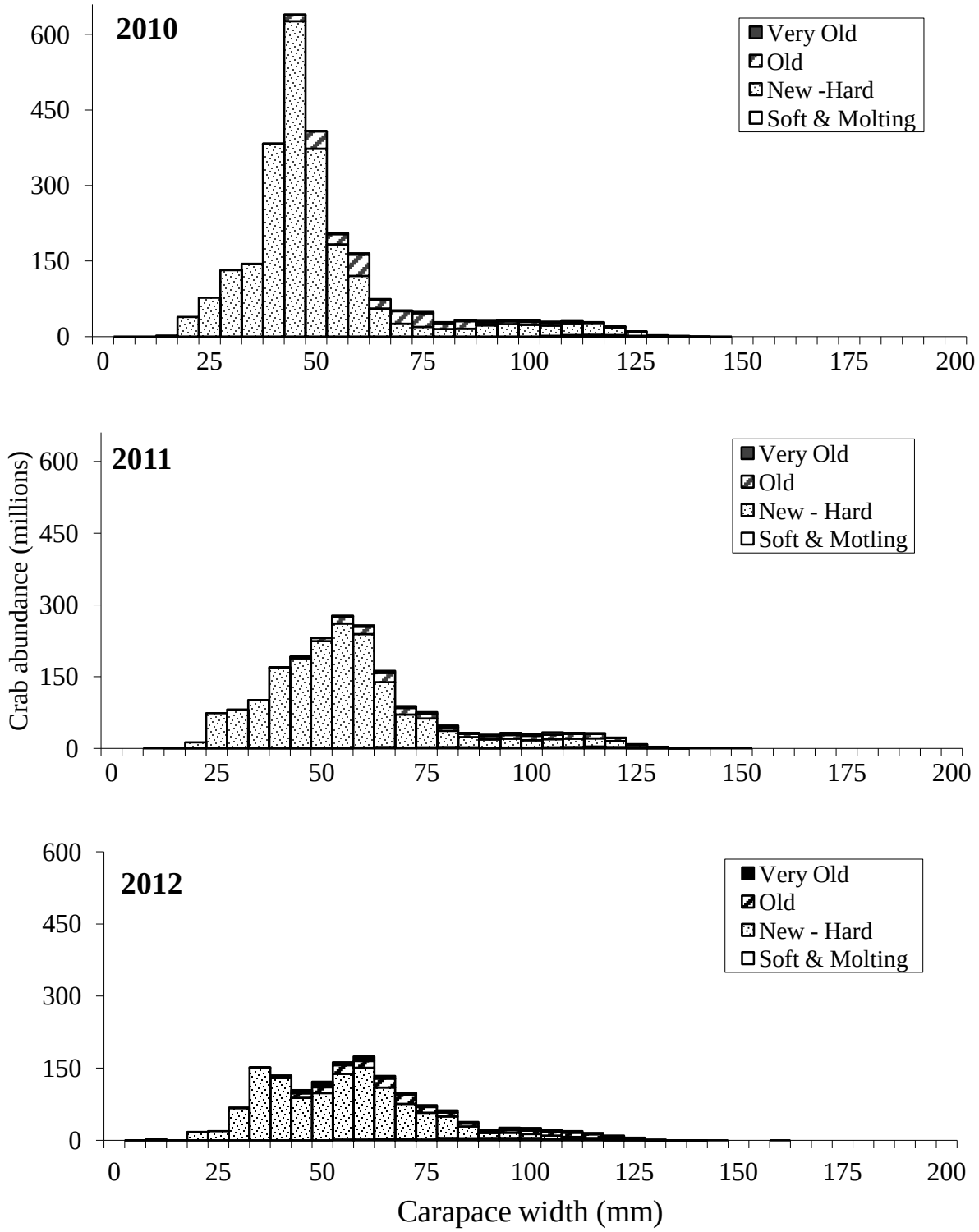


Figure 55. -- Size-frequency by shell condition of male snow crab (*Chionoecetes opilio*) by 5 mm width classes of all districts combined, 2010-2012.

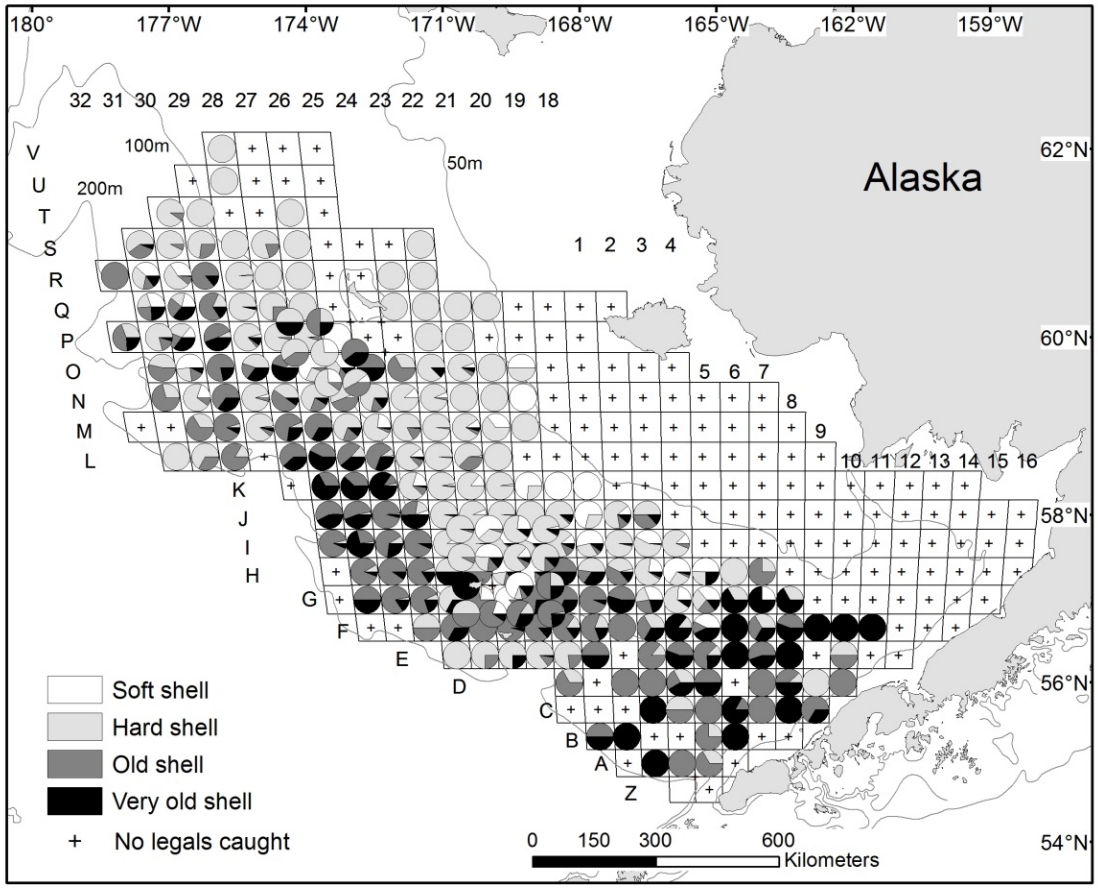


Figure 56. -- Distribution of legal-sized male snow crab (*Chionoecetes opilio*) caught at each station in 2012 and distinguished by shell condition.

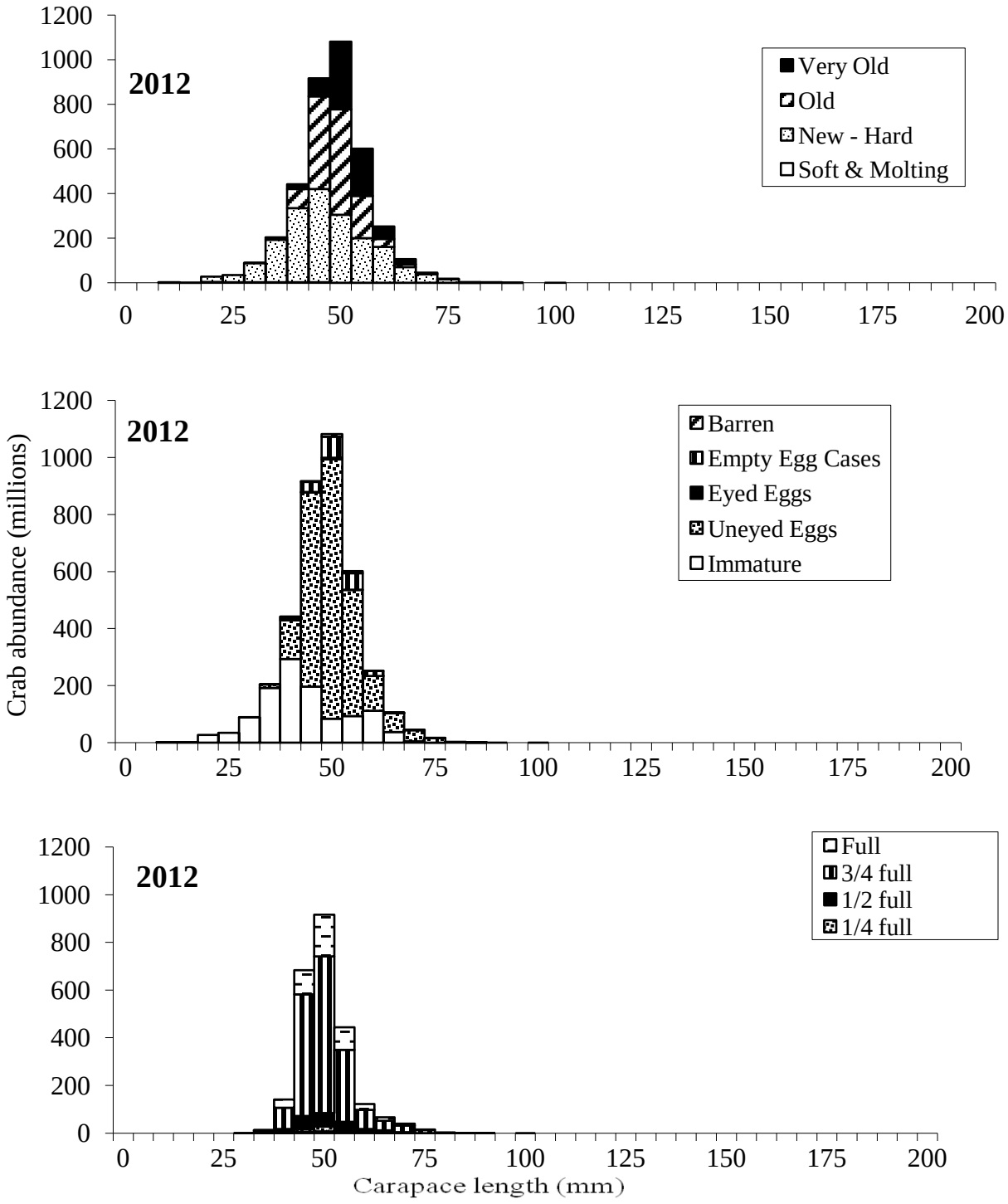
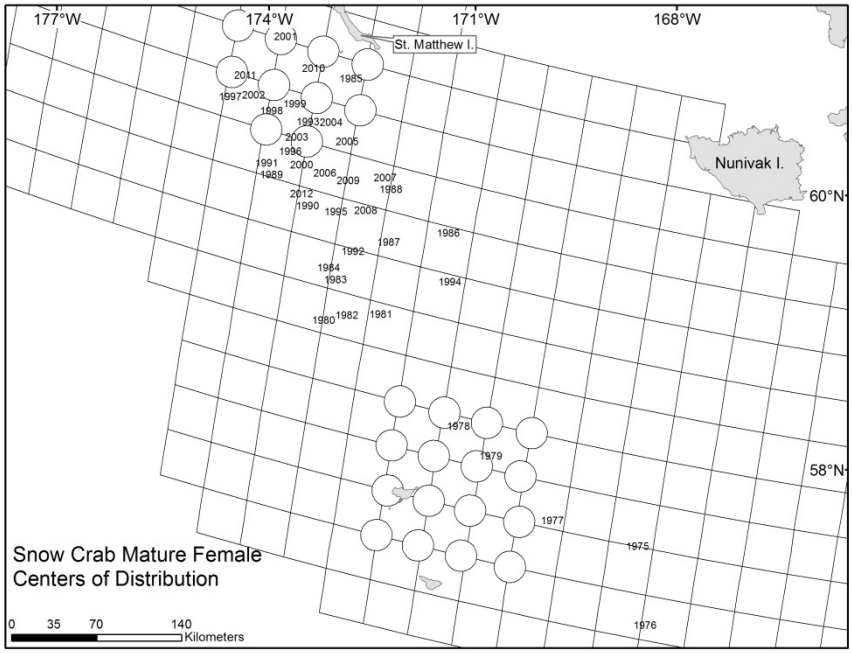


Figure 57. -- Size-frequency by shell condition, egg condition, and clutch fullness of female snow crab (*Chionoecetes opilio*) by 5 mm width classes of all districts combined in 2012.



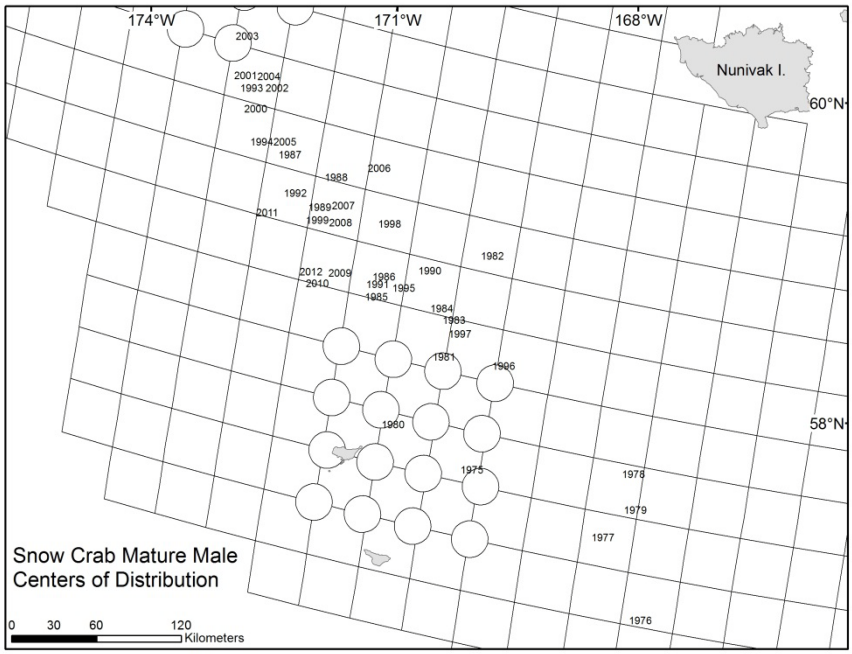


Figure 58. -- Centers of stock distribution of female and male snow crab (*Chionoecetes opilio*) from 1975 to 2012.

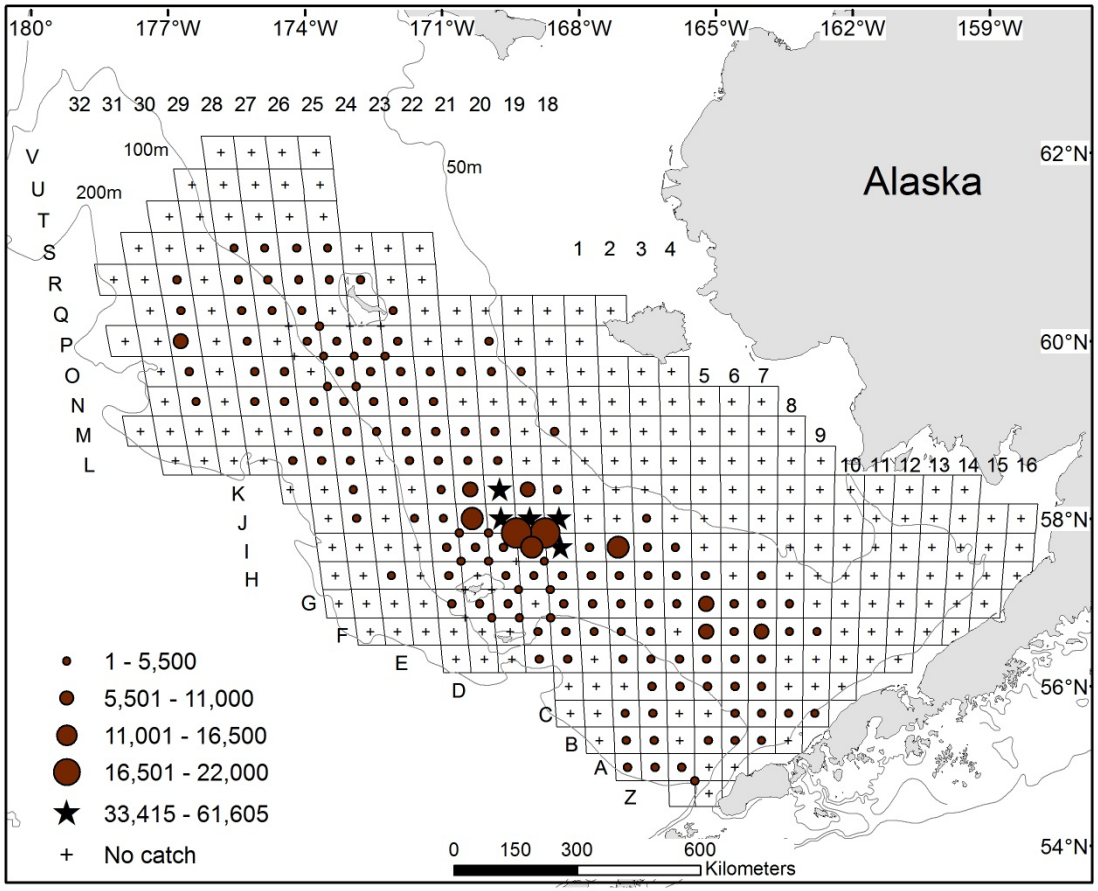


Figure 59. -- Total density (number nmi^{-2}) of *Chionoecetes bairdi/opilio* hybrid crab at each station sampled in 2012. Data depicted by circles are crab densities at equal intervals.

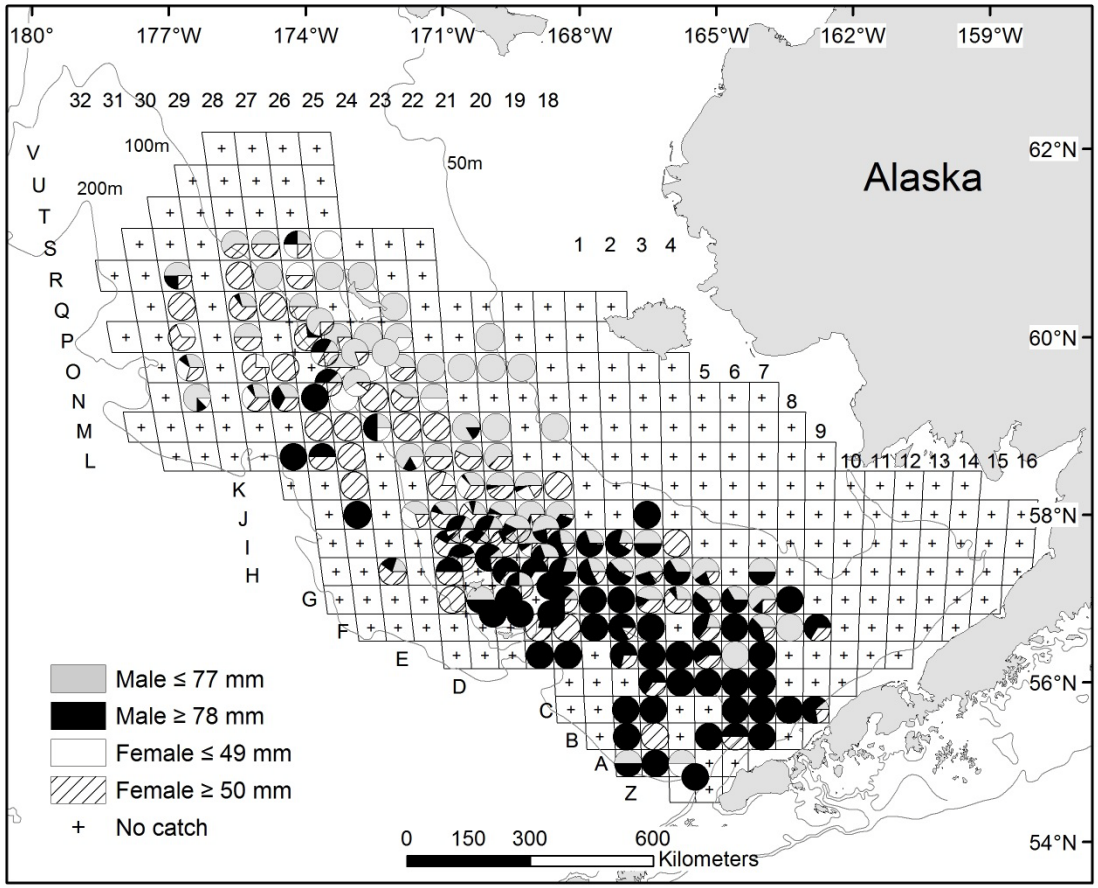


Figure 60. -- Percentage of male and female *Chionoecetes bairdi/opilio* hybrid crab size categories at each station sampled in 2012.

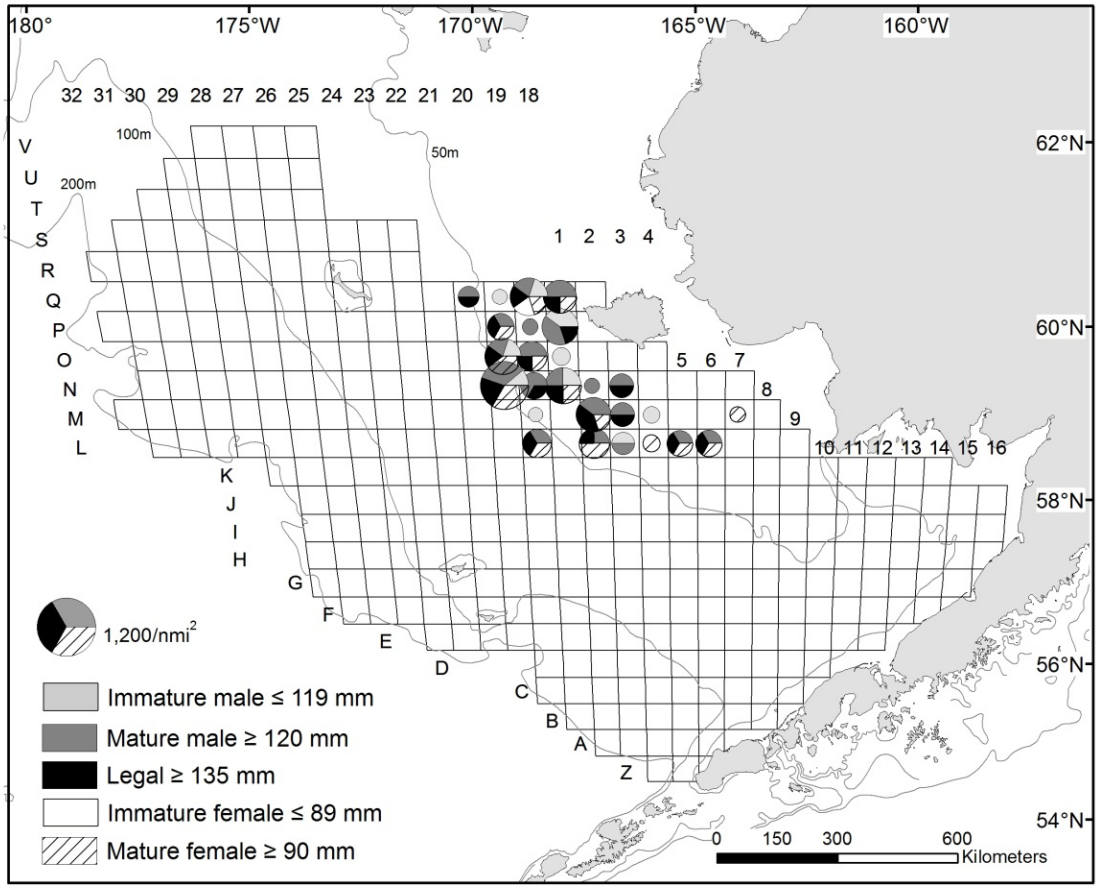


Figure 61. -- Total density (number nmi^{-2}) and percentage of male and female red king crab (*Paralithodes camtschaticus*) size categories at each station sampled in the Northern District in 2012.

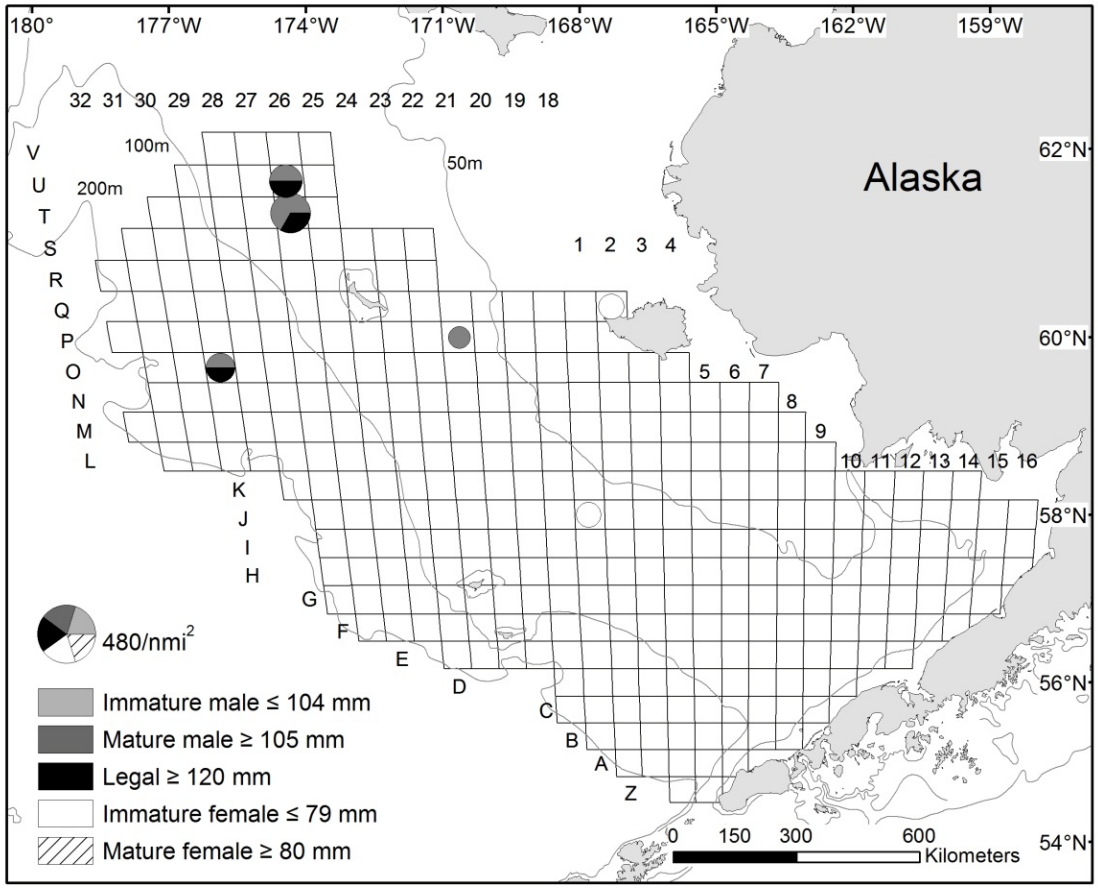


Figure 62. -- Total density (number nmi^{-2}) and percentage of male and female blue king crab (*Paralithodes platypus*) size categories at stations sampled outside of the Pribilof District and St. Matthew Island section of the Northern District in 2012.

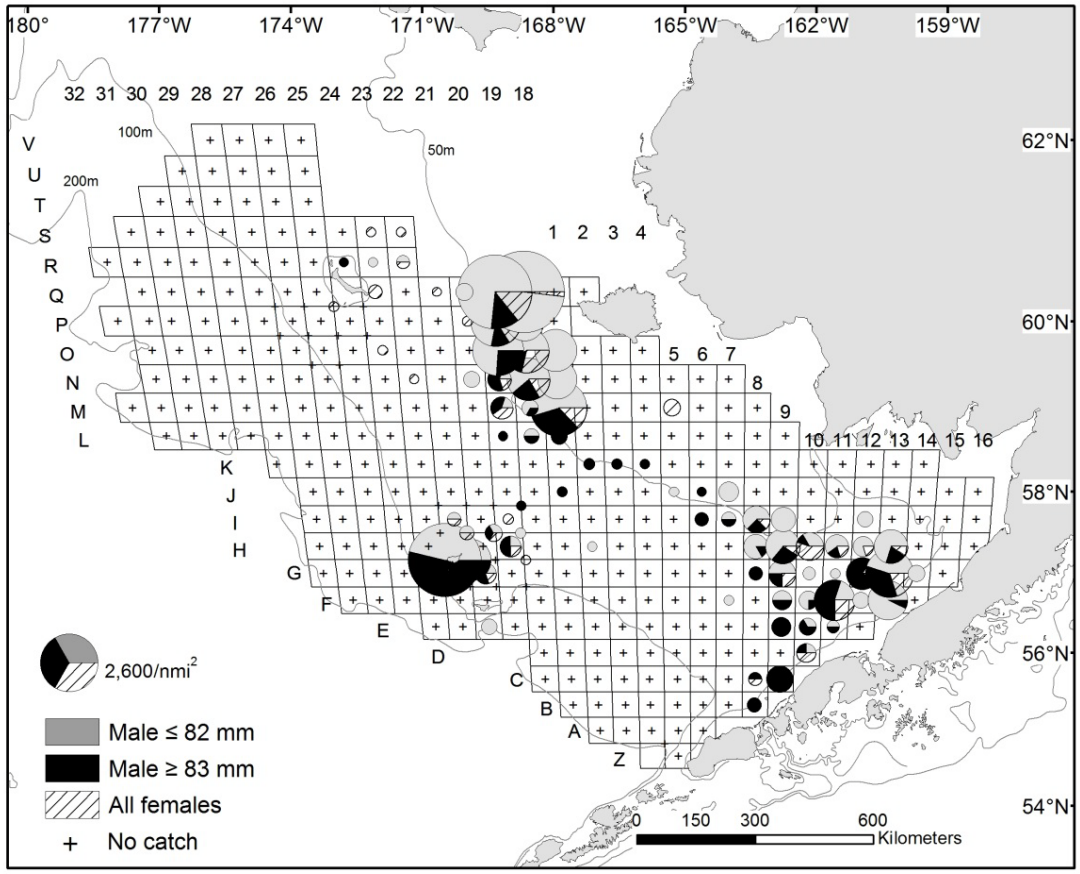


Figure 63. -- Total density (number nmi^{-2}) and percentage of male and female hair crab (*Erimacrus isenbeckii*) size categories at each station sampled in 2012.

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Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	A-02	A-03	A-04	A-05	A-06	AZ0504	B-01	B-02	B-03	B-04	B-05
Start Date	06/23/2012	06/23/2012	06/23/2012	06/14/2012	06/15/2012	06/14/2012	06/23/2012	06/23/2012	06/20/2012	06/20/2012	06/15/2012
Duration (h)	0.56	0.56	0.57	0.51	0.54	0.49	0.48	0.48	0.51	0.58	0.5
Distance Fished (km)	3.08	3.01	3.14	2.79	2.86	2.71	2.68	2.68	2.82	3.09	2.83
Mid-Latitude (^{o}N)	55.01	55	55.01	54.99	55.04	54.83	55.35	55.34	55.34	55.33	55.33
Mid-Longitude (^{o}W)	-166.93	-166.34	-165.76	-165.15	-164.58	-165.54	-167.56	-166.97	-166.35	-165.78	-165.18
Bottom Depth (m)	156	144	130	112	65	155	147	140	132	120	112
Bottom Temperature (^{o}C)	3.5	3.1	3.5	2.8	2.9	3.4	3	3	2.9	3.4	2.8
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	9790	6237	803	0	8006	2744	4239	3515	1764	2110	648
Mature males	663	1185	134	0	1464	298	372	862	412	586	1361
Legal	603	1123	134	0	1065	239	297	862	353	528	1297
Immature females	11985	8154	669	0	9536	3401	4313	4443	1528	1759	454
Mature females	139	5048	0	0	0	179	1041	663	412	59	130
Total weight (kg)	15.01	48.63	1.93	0.00	18.38	7.33	13.11	15.31	6.23	10.2	21.31
Opilio Tanner Crab											
Immature males	0	62	0	0	0	119	0	0	0	0	0
Mature males	0	0	201	0	0	0	149	66	0	0	259
Legal	0	62	201	0	0	60	149	66	0	0	259
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	133	0	0	0
Total weight (kg)	0.00	0.20	2.34	0.00	0.00	0.48	1.18	0.46	0.00	0.00	3.19
Hybrid Tanner Crab											
Males ≤ 77 mm	60	0	0	0	0	60	0	0	0	0	0
Males ≥ 78 mm	60	249	0	0	200	0	0	66	0	0	65
Immature females	0	0	0	0	0	60	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	118	0	0
Total weight (kg)	0.87	3.79	0.00	0.00	1.37	0.11	0.00	0.59	0.34	0.00	0.67

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	B-06	B-07	B-08	C-01	C-02	C-03	C-04	C-05	C-06	C-07	C-08
Start Date	06/15/2012	06/13/2012	06/13/2012	06/23/2012	06/24/2012	06/20/2012	06/20/2012	06/15/2012	06/15/2012	06/13/2012	06/13/2012
Duration (h)	0.28	0.51	0.52	0.48	0.57	0.53	0.57	0.51	0.55	0.51	0.55
Distance Fished (km)	1.62	2.82	2.8	2.67	3.09	3	3.24	2.83	3.02	2.77	2.97
Mid-Latitude (^{o}N)	55.33	55.35	55.34	55.67	55.67	55.68	55.67	55.65	55.66	55.7	55.66
Mid-Longitude (^{o}W)	-164.58	-164.02	-163.43	-167.59	-166.98	-166.39	-165.8	-165.19	-164.59	-163.98	-163.41
Bottom Depth (m)	101	81	52	134	135	127	117	109	96	95	81
Bottom Temperature (^{o}C)	2.2	2	2.4	2.9	2.8	2.9	2.9	2.6	1.6	0.6	1.8
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	3857	0	0	0	0	0	0	0	214
Legal	0	0	3529	0	0	0	0	0	0	0	214
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	3940	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	220.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.19
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	120	346	985	2360	511	2652	930	1678	334	985	712
Mature males	1199	276	2216	295	114	1160	547	1807	801	2252	2565
Legal	1079	207	1477	221	114	1050	492	1356	601	1900	2208
Immature females	120	0	82	2434	568	2376	1422	5487	467	845	1425
Mature females	599	829	657	221	0	718	0	2969	134	1408	2921
Total weight (kg)	10.22	7.48	24.85	5.04	2.15	17.57	9.71	51.59	10.2	34.78	40.94
Opilio Tanner Crab											
Immature males	0	0	82	0	0	0	55	0	200	141	71
Mature males	120	0	0	0	0	55	109	129	200	282	71
Legal	120	0	0	0	0	55	109	129	401	282	71
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	67	0	0
Total weight (kg)	0.44	0.00	0.23	0.00	0.00	0.67	1.89	1.30	3.35	2.16	0.53
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	0	0	0	0	0	0	0
Males $\geq$ 78 mm	120	138	0	0	57	111	0	0	200	282	285
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	120	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.92	0.88	0.00	0.00	0.84	1.50	0.00	0.00	1.94	2.79	1.89

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	C-09	C-18	D-01	D-02	D-03	D-04	D-05	D-06	D-07	D-08	D-09
Start Date	06/08/2012	07/17/2012	06/24/2012	06/24/2012	06/20/2012	06/20/2012	06/15/2012	06/15/2012	06/13/2012	06/13/2012	06/09/2012
Duration (h)	0.47	0.6	0.48	0.55	0.49	0.55	0.5	0.55	0.51	0.53	0.48
Distance Fished (km)	2.61	3.17	2.69	3.01	2.73	2.96	2.8	3.04	2.81	2.91	2.71
Mid-Latitude (^{o}N)	55.66	55.67	56	56	56	56	56	56	55.99	56.01	55.99
Mid-Longitude (^{o}W)	-162.83	-168.2	-167.61	-167.01	-166.4	-165.79	-165.19	-164.58	-164.04	-163.39	-162.85
Bottom Depth (m)	53	137	133	135	124	107	96	93	90	88	80
Bottom Temperature (^{o}C)	1.8	3.1	2.9	2.6	2.5	2.6	2	0.8	0.8	1.2	0.7
Red King Crab											
Immature males	279	0	0	0	0	0	0	0	0	0	0
Mature males	1676	0	0	0	0	0	0	0	155	0	75
Legal	1024	0	0	0	0	0	0	0	155	0	75
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	1397	0	0	0	0	0	0	0	0	0	75
Total weight (kg)	67.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.58	0.00	3.82
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	26309	229	1011	1217	453	1074	475	1100	78	1500	673
Mature males	10962	286	135	290	1423	1410	1562	583	698	375	673
Legal	6358	286	67	232	1358	1209	1222	453	543	300	598
Immature females	466	514	1078	637	711	1142	679	777	388	1950	299
Mature females	3632	0	135	232	905	1142	611	453	155	375	449
Total weight (kg)	135.36	2.55	2.35	4.91	18.57	23.4	21.4	11.76	7.34	10.07	10.49
Opilio Tanner Crab											
Immature males	0	0	0	0	0	269	136	65	155	75	0
Mature males	279	0	0	58	129	739	204	0	0	600	75
Legal	279	0	0	58	129	806	272	0	78	600	75
Immature females	0	0	0	0	0	67	0	0	0	0	0
Mature females	0	57	0	0	0	134	0	0	0	0	0
Total weight (kg)	1.37	0.04	0.00	0.61	1.48	8.70	1.80	0.10	0.34	5.00	0.85
Hybrid Tanner Crab											
Males $\leq$ 77 mm	93	0	0	0	0	0	0	0	0	0	0
Males $\geq$ 78 mm	559	0	0	0	129	134	339	194	78	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	186	0	0	0	65	0	0	0	0	0	0
Total weight (kg)	2.01	0.00	0.00	0.00	1.44	1.53	3.78	1.59	0.87	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	D-10	D-18	E-01	E-02	E-03	E-04	E-05	E-06	E-07	E-08	E-09
Start Date	06/08/2012	07/17/2012	06/24/2012	06/24/2012	06/20/2012	06/20/2012	06/15/2012	06/16/2012	06/13/2012	06/12/2012	06/09/2012
Duration (h)	0.51	0.55	0.48	0.55	0.49	0.55	0.49	0.53	0.48	0.54	0.5
Distance Fished (km)	2.85	3.07	2.71	2.94	2.72	3.08	2.85	2.93	2.67	2.92	2.69
Mid-Latitude (^{o}N)	56	56	56.33	56.33	56.35	56.34	56.34	56.34	56.35	56.33	56.33
Mid-Longitude (^{o}W)	-162.24	-168.22	-167.65	-167.03	-166.42	-165.8	-165.2	-164.58	-163.96	-163.41	-162.79
Bottom Depth (m)	72	150	129	114	104	92	86	87	86	85	78
Bottom Temperature (^{o}C)	0.8	3.2	2.8	2.4	1.9	1.1	0.5	0.1	0	0.7	0.5
Red King Crab											
Immature males	1683	0	0	0	0	0	0	0	0	0	0
Mature males	3512	0	0	0	0	0	0	0	0	0	374
Legal	2707	0	0	0	0	0	0	0	0	0	374
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	3365	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	211.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.21
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	1463	6186	1140	194	695	453	1287	900	2330	911	598
Mature males	878	289	427	1102	773	777	677	346	451	683	523
Legal	805	289	427	1102	695	583	542	277	301	607	523
Immature females	146	6995	784	194	541	583	271	623	1503	683	374
Mature females	366	0	71	519	155	194	271	0	75	228	150
Total weight (kg)	11.78	5.5	5.7	14.13	8.05	11.72	12.57	6.03	8.68	10.69	7.1
Opilio Tanner Crab											
Immature males	0	0	0	0	0	0	135	69	451	455	0
Mature males	146	173	427	0	541	583	474	277	376	228	0
Legal	146	173	427	0	541	583	542	277	676	455	0
Immature females	0	0	0	0	77	0	0	0	0	0	0
Mature females	0	0	0	194	0	0	0	0	0	0	0
Total weight (kg)	1.39	1.84	4.55	0.39	4.64	6.04	5.57	2.55	3.10	2.99	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	0	0	0	69	0	0	0
Males $\geq$ 78 mm	0	0	0	324	155	65	203	0	150	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	130	0	0	135	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	4.42	1.46	0.28	1.71	0.14	0.57	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	E-10	E-11	E-12	E-18	E-19	E-20	E-21	E-22	F-01	F-02	F-03
Start Date	06/08/2012	06/08/2012	06/07/2012	07/17/2012	07/17/2012	07/18/2012	07/18/2012	07/18/2012	06/24/2012	06/24/2012	06/20/2012
Duration (h)	0.5	0.55	0.54	0.49	0.48	0.35	0.49	0.51	0.5	0.55	0.49
Distance Fished (km)	2.72	3.04	3.07	2.76	2.63	1.94	2.7	2.76	2.74	3.07	2.71
Mid-Latitude (^{o}N)	56.34	56.34	56.34	56.32	56.33	56.37	56.33	56.34	56.67	56.66	56.67
Mid-Longitude (^{o}W)	-162.18	-161.61	-160.99	-168.23	-168.85	-169.41	-170.06	-170.67	-167.67	-167.07	-166.44
Bottom Depth (m)	77	66	51	153	126	128	109	120	103	95	85
Bottom Temperature (^{o}C)	0.1	0.8	0.8	3.1	2.9	3	2.6	3.2	1.4	1	0.2
Red King Crab											
Immature males	2179	645	2872	0	0	0	0	0	0	0	0
Mature males	856	1806	1632	0	0	0	0	0	0	0	0
Legal	311	1290	783	0	0	0	0	0	0	0	0
Immature females	1868	0	196	0	0	0	0	0	0	0	0
Mature females	9885	2322	15338	0	0	0	0	0	0	0	0
Total weight (kg)	145.75	125.74	418.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	3113	1354	5417	5700	1802	1154	556	674	73	194	1074
Mature males	1401	1935	326	2558	2115	96	834	337	730	324	1146
Legal	934	1225	261	2412	1958	0	695	202	730	324	931
Immature females	156	0	1566	6650	1880	2500	903	674	219	0	573
Mature females	2179	516	392	146	313	385	695	0	0	324	931
Total weight (kg)	25.19	19.29	14.48	29.11	25.84	3.67	9.58	3.83	6.01	4.88	14.07
Opilio Tanner Crab											
Immature males	0	0	0	0	78	0	208	0	0	0	143
Mature males	156	0	0	1608	2585	385	139	67	1898	453	573
Legal	156	0	0	1608	2664	385	278	67	1898	453	644
Immature females	0	0	0	0	0	0	139	0	0	65	0
Mature females	0	0	0	0	0	0	0	0	0	129	0
Total weight (kg)	1.22	0.00	0.00	17.39	25.82	2.63	1.98	0.88	18.32	4.97	5.04
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	0	0	0	0	0	0	0
Males $\geq$ 78 mm	0	0	0	1389	1097	0	0	0	146	324	72
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	65	0
Total weight (kg)	0.00	0.00	0.00	11.65	9.87	0.00	0.00	0.00	1.37	3.65	0.31

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	F-04	F-05	F-06	F-07	F-08	F-09	F-10	F-11	F-12	F-13	F-14
Start Date	06/19/2012	06/15/2012	06/16/2012	06/12/2012	06/12/2012	06/09/2012	06/09/2012	06/08/2012	06/07/2012	06/06/2012	06/05/2012
Duration (h)	0.54	0.51	0.55	0.5	0.56	0.5	0.53	0.52	0.53	0.5	0.53
Distance Fished (km)	2.96	2.8	2.97	2.67	3.03	2.74	2.9	2.89	2.91	2.7	2.9
Mid-Latitude (^{o}N)	56.66	56.66	56.67	56.67	56.67	56.66	56.66	56.66	56.66	56.67	56.67
Mid-Longitude (^{o}W)	-165.85	-165.2	-164.61	-164.02	-163.39	-162.77	-162.2	-161.6	-160.99	-160.36	-159.78
Bottom Depth (m)	78	76	75	75	75	72	72	89	68	60	39
Bottom Temperature (^{o}C)	-0.5	-0.2	-0.4	-0.3	-0.1	0	-0.2	0.1	-0.6	0.1	0.9
Red King Crab											
Immature males	0	0	0	0	0	0	135	1263	763	4677	78
Mature males	0	0	0	0	0	227	405	1263	416	971	234
Legal	0	0	0	0	0	227	270	598	208	353	234
Immature females	0	0	0	0	0	0	0	266	277	2824	78
Mature females	0	0	0	0	0	76	0	1662	2497	3177	1093
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	8.63	15.86	69.74	64.80	100.90	31.52
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	2085	53892	21496	129501	17070	46080	7021	997	2151	1589	0
Mature males	874	2994	685	1786	3021	4864	1148	931	1387	0	0
Legal	404	1123	274	0	1057	2816	405	665	763	0	0
Immature females	1480	31183	10021	92816	9259	15965	473	133	139	1589	0
Mature females	67	8019	468	1043	1323	10042	608	532	1665	177	0
Total weight (kg)	10.73	258.1	69.02	354.62	83.14	228.27	30.28	14.04	24.93	3.61	0.00
Opilio Tanner Crab											
Immature males	202	1504	0	2525	130	0	135	66	0	0	0
Mature males	269	479	334	394	521	76	68	0	0	0	0
Legal	471	1709	334	1105	586	76	68	66	0	0	0
Immature females	67	0	0	0	0	0	0	0	0	0	0
Mature females	0	1504	0	0	0	0	0	0	0	0	0
Total weight (kg)	2.82	9.69	2.70	8.08	4.96	0.38	1.23	0.39	0.00	0.00	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	1709	0	3629	65	0	0	0	0	0	0
Males $\geq$ 78 mm	0	3692	267	3945	0	151	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	2940	0	2130	0	76	0	0	0	0	0
Total weight (kg)	0.00	17.04	1.85	18.48	0.12	0.89	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	F-18	F-19	F-20	F-21	F-22	F-23	F-24	F-25	G-01	G-02	G-03
Start Date	07/17/2012	07/02/2012	07/04/2012	07/04/2012	07/04/2012	07/18/2012	07/19/2012	07/19/2012	06/24/2012	06/24/2012	06/19/2012
Duration (h)	0.54	0.56	0.5	0.49	0.5	0.5	0.52	0.5	0.49	0.51	0.51
Distance Fished (km)	3.03	3.19	2.72	2.68	2.72	2.83	2.87	2.76	2.64	2.82	2.8
Mid-Latitude (^{o}N)	56.66	56.68	56.68	56.67	56.67	56.65	56.67	56.68	57	57	57.01
Mid-Longitude (^{o}W)	-168.3	-168.91	-169.52	-170.13	-170.72	-171.35	-171.94	-172.56	-167.71	-167.1	-166.46
Bottom Depth (m)	106	99	79	97	113	120	126	136	78	74	74
Bottom Temperature (^{o}C)	1.7	1.1	1.7	1.5	2.6	2.9	2.8	3.1	0.2	-0.5	-0.6
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	78	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	681	61	157	2908	142	1171	2795	2664	1809	1284	5820
Mature males	2661	3560	861	995	142	0	0	67	3948	831	2007
Legal	2228	3130	626	612	142	0	0	67	3372	755	1004
Immature females	805	737	78	4822	71	1236	1495	3863	1974	1359	4148
Mature females	371	982	0	306	0	0	65	0	329	151	1673
Total weight (kg)	27.49	44.17	7.59	14.76	1.19	0.73	2.18	1.86	27.29	7.06	28.81
Opilio Tanner Crab											
Immature males	1362	184	78	153	0	65	0	0	247	604	1539
Mature males	1671	1657	1487	153	213	130	0	0	2385	680	1204
Legal	2042	1780	1565	153	213	130	0	0	2632	831	1271
Immature females	0	0	0	0	0	0	65	0	82	151	401
Mature females	13739	2823	0	0	0	65	0	0	82	378	3880
Total weight (kg)	53.57	20.71	13.30	1.34	1.54	1.37	0.00	0.00	20.48	6.80	16.33
Hybrid Tanner Crab											
Males ≤ 77 mm	0	0	0	0	0	0	0	0	0	0	669
Males ≥ 78 mm	0	614	0	0	0	0	0	0	329	227	201
Immature females	0	61	0	0	0	0	0	0	0	0	0
Mature females	124	2455	0	0	0	0	0	0	0	0	602
Total weight (kg)	0.37	10.43	0.00	0.00	0.00	0.00	0.00	0.00	1.71	1.26	2.22

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	G-04	G-05	G-06	G-07	G-08	G-09	G-10	G-11	G-12	G-13	G-14
Start Date	06/19/2012	06/16/2012	06/16/2012	06/12/2012	06/12/2012	06/09/2012	06/09/2012	06/07/2012	06/07/2012	06/06/2012	06/05/2012
Duration (h)	0.52	0.49	0.53	0.49	0.54	0.51	0.55	0.49	0.55	0.49	0.52
Distance Fished (km)	2.93	2.67	2.83	2.65	2.91	2.8	2.96	2.73	2.98	2.67	2.93
Mid-Latitude (^{o}N)	57	56.98	57	57	57	57	57	57.01	57	57	57.01
Mid-Longitude (^{o}W)	-165.86	-165.23	-164.62	-164.03	-163.39	-162.79	-162.18	-161.56	-160.96	-160.33	-159.69
Bottom Depth (m)	72	71	67	67	65	61	59	67	63	64	56
Bottom Temperature (^{o}C)	-1	-0.8	-0.9	-0.8	-0.5	0.1	0.7	0.3	0.1	0.3	0
Red King Crab											
Immature males	0	0	0	0	0	0	0	461	387	275	0
Mature males	0	0	0	0	73	74	0	384	258	1008	363
Legal	0	0	0	0	0	74	0	154	193	642	363
Immature females	0	0	0	0	0	0	0	0	0	92	73
Mature females	0	0	0	0	0	0	0	615	322	1833	363
Total weight (kg)	0.00	0.00	0.00	0.00	1.52	3.00	0.00	23.99	20.07	63.60	19.74
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	6245	26359	22941	9554	2258	963	130	308	0	92	2614
Mature males	343	0	0	80	0	74	0	0	0	92	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	6726	18672	19682	7803	583	0	0	77	0	92	2033
Mature females	343	471	0	80	73	0	65	0	0	0	0
Total weight (kg)	24.91	56.95	53.67	20.74	7.07	2.91	0.42	0.92	0.00	0.85	4.39
Opilio Tanner Crab											
Immature males	1784	5033	444	637	291	0	0	0	0	0	0
Mature males	892	472	148	0	73	0	0	0	0	0	0
Legal	1441	1101	222	318	218	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	1579	4011	148	0	73	0	0	0	0	0	0
Total weight (kg)	9.85	13.90	1.97	1.58	1.40	0.00	0.00	0.00	0.00	0.00	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	206	2595	74	398	0	0	0	0	0	0	0
Males $\geq$ 78 mm	69	2831	148	80	291	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	480	1101	0	159	0	0	0	0	0	0	0
Total weight (kg)	1.51	10.28	0.55	0.81	0.62	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	G-15	G-18	G-19	G-20	G-21	G-22	G-23	G-24	G-25	G-26	GF1918
Start Date	06/05/2012	07/02/2012	07/02/2012	07/02/2012	07/04/2012	07/04/2012	07/18/2012	07/18/2012	07/18/2012	07/19/2012	07/02/2012
Duration (h)	0.5	0.54	0.5	0.51	0.49	0.54	0.55	0.58	0.57	0.5	0.56
Distance Fished (km)	2.8	2.9	2.77	2.9	2.77	2.94	2.94	3.11	3.15	2.79	2.96
Mid-Latitude (^{o}N)	57.02	57	57	57	57	57	57	57	57	57	56.84
Mid-Longitude (^{o}W)	-159.13	-168.35	-168.96	-169.57	-170.16	-170.78	-171.4	-172.03	-172.65	-173.25	-168.61
Bottom Depth (m)	33	82	80	60	69	95	109	117	122	141	96
Bottom Temperature (^{o}C)	1.3	0.3	0	-0.1	1.2	1.9	2.4	2.7	2.8	3.2	0.9
Red King Crab											
Immature males	0	0	0	0	146	0	0	0	0	0	0
Mature males	0	0	0	0	1311	0	0	0	0	0	0
Legal	0	0	0	0	1311	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	85	0	0	0	583	67	0	0	0	0	0
Total weight (kg)	1.63	0.00	0.00	0.00	98.41	0.78	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	73	0	0	0	0	0	0	0	0
Legal	0	0	73	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	71	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	3.67	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	0	1461	1757	5337	2040	7941	64	459	651	595	67
Mature males	0	1809	805	925	4226	740	64	0	0	132	1076
Legal	0	1670	732	569	3716	471	64	0	0	132	942
Immature females	0	1461	1684	1992	437	1682	192	131	592	529	336
Mature females	0	0	293	712	656	942	0	0	0	0	0
Total weight (kg)	0.00	16.71	7.02	14.29	44.68	26.84	0.8	0.06	0.94	2.63	10.3
Opilio Tanner Crab											
Immature males	0	348	146	1067	219	135	2682	524	178	0	538
Mature males	0	1113	1098	4056	1384	67	3257	5961	118	0	2220
Legal	0	1322	1098	4269	1530	202	4853	6158	118	0	2557
Immature females	0	0	0	213	219	0	0	590	414	0	0
Mature females	0	487	146	285	73	0	30973	328	0	0	0
Total weight (kg)	0.00	12.13	9.04	25.19	10.67	1.16	81.05	59.64	0.44	0.00	23.72
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	70	0	0	73	0	0	0	0	0	0
Males $\geq$ 78 mm	0	348	0	71	73	0	0	0	0	0	606
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	139	0	0	0	67	0	0	0	0	0
Total weight (kg)	0.00	2.69	0.00	0.29	0.48	0.05	0.00	0.00	0.00	0.00	5.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	GF2019	GF2120	GF2221	H-01	H-02	H-03	H-04	H-05	H-06	H-07	H-08
Start Date	07/02/2012	07/02/2012	07/04/2012	06/24/2012	06/25/2012	06/19/2012	06/19/2012	06/16/2012	06/16/2012	06/12/2012	06/12/2012
Duration (h)	0.5	0.47	0.49	0.5	0.52	0.49	0.52	0.5	0.53	0.5	0.52
Distance Fished (km)	2.66	2.74	2.7	2.73	2.83	2.68	2.85	2.78	2.94	2.68	2.85
Mid-Latitude (^{o}N)	56.83	56.83	56.83	57.33	57.33	57.33	57.33	57.33	57.33	57.33	57.33
Mid-Longitude (^{o}W)	-169.3	-169.85	-170.48	-167.74	-167.13	-166.49	-165.87	-165.23	-164.63	-164.02	-163.4
Bottom Depth (m)	79	72	101	74	69	69	68	66	65	61	53
Bottom Temperature (^{o}C)	-0.2	0.2	1.9	-0.4	-0.8	-0.8	-0.3	-0.5	0.2	0	1.1
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	78
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.87
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	75	0	0	0	0	0	0	0	0	0	0
Legal	75	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	75	77	0	0	0	0	0	0	0	0	0
Total weight (kg)	4.30	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	1202	1687	6735	19611	20506	10506	146	508	288	154	0
Mature males	826	1380	860	5168	4915	1426	0	0	0	0	0
Legal	601	1074	502	2783	2712	375	0	0	0	0	0
Immature females	1352	690	4156	10882	5572	825	73	145	288	154	78
Mature females	150	767	1218	2647	1685	375	0	0	0	0	0
Total weight (kg)	8.15	18.02	18.29	75.38	61.34	21.04	0.41	0.98	0.81	0.22	0.11
Opilio Tanner Crab											
Immature males	751	0	143	6912	3504	18686	30481	3843	72	77	0
Mature males	826	767	72	1176	1268	4353	4166	145	0	230	0
Legal	977	767	143	2132	2088	11407	10160	290	72	307	0
Immature females	0	0	0	13162	746	225	292	0	0	0	0
Mature females	601	0	0	35368	8500	18761	44370	2465	72	0	0
Total weight (kg)	9.67	5.78	0.96	60.23	24.18	69.63	109.96	7.49	0.25	1.86	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	368	1044	2702	73	653	0	77	0
Males $\geq$ 78 mm	150	77	0	662	1566	1501	146	218	0	77	0
Immature females	0	0	0	0	0	75	0	0	0	0	0
Mature females	0	0	0	221	224	675	0	218	0	0	0
Total weight (kg)	1.18	0.32	0.00	3.54	5.53	7.97	0.66	1.23	0.00	0.20	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	H-09	H-10	H-11	H-12	H-13	H-14	H-15	H-16	H-18	H-19	H-20
Start Date	06/09/2012	06/09/2012	06/07/2012	06/07/2012	06/06/2012	06/05/2012	06/05/2012	06/04/2012	07/01/2012	07/01/2012	07/05/2012
Duration (h)	0.49	0.53	0.48	0.54	0.49	0.52	0.49	0.5	0.49	0.47	0.49
Distance Fished (km)	2.61	2.94	2.6	3.01	2.62	2.87	2.67	2.77	2.72	2.65	2.7
Mid-Latitude (^{o}N)	57.33	57.32	57.33	57.33	57.34	57.34	57.34	57.34	57.34	57.34	57.34
Mid-Longitude (^{o}W)	-162.77	-162.15	-161.54	-160.93	-160.3	-159.67	-159.06	-158.4	-168.37	-168.99	-169.6
Bottom Depth (m)	48	50	56	64	62	57	50	32	74	71	63
Bottom Temperature (^{o}C)	1.1	1.1	0.9	-0.2	-0.1	0	0.3	0.8	-0.1	0	0
Red King Crab											
Immature males	0	68	0	133	0	0	0	0	0	0	0
Mature males	259	68	258	200	90	225	183	90	0	0	0
Legal	173	68	172	67	90	225	183	90	0	0	0
Immature females	0	0	0	67	0	0	0	0	0	0	0
Mature females	173	0	86	200	271	599	91	90	0	0	0
Total weight (kg)	10.45	3.90	7.41	10.67	5.42	17.10	7.15	5.14	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	796	0
Mature males	0	0	0	0	0	0	0	0	0	884	0
Legal	0	0	0	0	0	0	0	0	0	442	0
Immature females	0	0	0	0	0	0	0	0	0	884	0
Mature females	0	0	0	0	0	0	0	0	0	88	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.37	0.00
Bairdi Tanner Crab											
Immature males	0	0	86	0	0	225	0	90	2165	4685	4540
Mature males	0	0	0	0	0	0	0	90	1332	1768	1077
Legal	0	0	0	0	0	0	0	90	999	1061	385
Immature females	0	68	0	0	362	0	0	0	416	3271	1462
Mature females	0	0	0	0	0	0	0	0	83	619	846
Total weight (kg)	0.00	0.12	0.13	0	0.13	0.1	0.00	0.58	11.62	18.91	18.55
Opilio Tanner Crab											
Immature males	0	0	0	0	0	0	0	0	1166	1679	1462
Mature males	0	0	0	0	0	0	0	0	416	4066	2308
Legal	0	0	0	0	0	0	0	0	666	4508	3232
Immature females	0	0	0	0	0	0	0	0	83	88	0
Mature females	0	0	0	0	0	0	0	0	1332	354	77
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.77	19.29	16.30
Hybrid Tanner Crab											
Males ≤ 77 mm	0	0	0	0	0	0	0	0	167	0	0
Males ≥ 78 mm	0	0	0	0	0	0	0	0	666	177	154
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	88	77
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	0.66	0.60

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	H-21	H-22	H-23	H-24	H-25	H-26	HG1918	HG2019	HG2120	HG2221	I-01
Start Date	07/04/2012	07/04/2012	07/13/2012	07/13/2012	07/18/2012	07/19/2012	07/01/2012	07/02/2012	07/05/2012	07/04/2012	06/25/2012
Duration (h)	0.49	0.57	0.48	0.5	0.57	0.5	0.53	0.51	0.49	0.49	0.47
Distance Fished (km)	2.7	3.07	2.67	2.71	3.17	2.68	2.82	2.78	2.66	2.72	2.57
Mid-Latitude (^{o}N)	57.33	57.35	57.33	57.35	57.34	57.3	57.17	57.16	57.16	57.12	57.66
Mid-Longitude (^{o}W)	-170.23	-170.83	-171.48	-172.11	-172.81	-173.32	-168.62	-169.32	-169.9	-170.46	-167.77
Bottom Depth (m)	55	82	101	108	117	121	77	73	50	52	69
Bottom Temperature (^{o}C)	2.1	1.2	1.9	1.7	2.1	3	-0.1	-0.3	3.2	2.3	0.5
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	1340	0
Mature males	333	67	0	0	0	0	0	0	263	2758	0
Legal	333	67	0	0	0	0	0	0	263	2443	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	83	0	0	0	0	0	0	0	0	788	0
Total weight (kg)	14.11	3.88	0.00	0.00	0.00	0.00	0.00	0.00	10.15	129.66	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	250	1749	0	143	0	973	73	11061	438	473	50568
Mature males	167	3969	364	143	0	139	219	428	88	788	784
Legal	167	3229	291	143	0	0	219	285	88	630	392
Immature females	0	1413	0	0	0	1182	73	9563	0	315	11090
Mature females	0	538	73	72	0	0	73	285	175	394	559
Total weight (kg)	1.34	38.23	3.16	2.05	0.00	2.33	1.92	15.49	1.66	6.97	68.13
Opilio Tanner Crab											
Immature males	83	202	291	4006	237	0	0	2783	0	0	36810
Mature males	83	202	2691	7654	3966	0	292	2498	0	79	7455
Legal	167	269	2836	9371	4203	0	292	3925	0	79	17240
Immature females	0	0	0	3362	59	0	0	1070	0	0	746
Mature females	0	135	145	105372	237	0	658	3069	0	0	41190
Total weight (kg)	0.62	1.74	24.28	179.54	41.76	0.00	3.14	25.81	0.00	0.80	100.99
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	72	0	0	0	71	0	0	1211
Males $\geq$ 78 mm	0	135	0	72	0	0	731	71	0	0	2703
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	135	0	215	0	0	0	143	0	0	93
Total weight (kg)	0.00	1.96	0.00	1.11	0.00	0.00	6.00	0.59	0.00	0.00	7.21

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	I-02	I-03	I-04	I-05	I-06	I-07	I-08	I-09	I-10	I-11	I-12
Start Date	06/25/2012	06/19/2012	06/19/2012	06/16/2012	06/16/2012	06/12/2012	06/12/2012	06/10/2012	06/09/2012	06/07/2012	06/07/2012
Duration (h)	0.53	0.39	0.53	0.51	0.52	0.49	0.53	0.5	0.54	0.48	0.57
Distance Fished (km)	2.89	2.11	2.91	2.74	2.83	2.67	2.89	2.73	2.97	2.73	3.18
Mid-Latitude (^{o}N)	57.67	57.67	57.67	57.66	57.67	57.66	57.67	57.66	57.66	57.67	57.66
Mid-Longitude (^{o}W)	-167.15	-166.52	-165.89	-165.24	-164.62	-164	-163.39	-162.76	-162.13	-161.49	-160.89
Bottom Depth (m)	68	67	65	61	52	51	46	43	46	53	57
Bottom Temperature (^{o}C)	0.5	0.4	0.3	0.4	1.7	1.3	1.5	1.6	1.5	1	0.8
Red King Crab											
Immature males	0	0	0	0	155	0	0	0	66	490	127
Mature males	0	0	0	0	0	82	0	80	199	82	64
Legal	0	0	0	0	0	82	0	80	133	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	66	245	255
Total weight (kg)	0.00	0.00	0.00	0.00	3.52	2.43	0.00	3.31	8.27	8.28	9.83
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	6875	383	428	0	78	0	146	479	0	0	127
Mature males	1146	191	0	0	0	0	0	0	0	0	0
Legal	382	96	0	0	0	0	0	0	0	0	0
Immature females	3438	0	143	0	0	0	73	239	0	0	0
Mature females	382	96	0	0	0	0	0	160	0	0	0
Total weight (kg)	19.63	1.44	0.7	0.00	0.09	0.00	0.4	0.58	0.00	0.00	0.1
Opilio Tanner Crab											
Immature males	91517	21829	12269	1236	0	0	0	0	0	0	0
Mature males	7407	3447	1213	0	0	0	0	0	0	0	0
Legal	31977	9383	1926	0	0	0	0	0	0	0	0
Immature females	1496	0	0	0	0	0	0	0	0	0	0
Mature females	83255	5170	10842	145	0	0	0	0	0	0	0
Total weight (kg)	307.99	42.44	31.25	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	3419	383	0	0	0	0	0	0	0	0	0
Males $\geq$ 78 mm	11466	383	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	1496	0	214	0	0	0	0	0	0	0	0
Total weight (kg)	42.60	1.73	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	I-13	I-14	I-15	I-16	I-18	I-19	I-20	I-21	I-22	I-23	I-24
Start Date	06/06/2012	06/05/2012	06/05/2012	06/04/2012	07/01/2012	07/01/2012	07/05/2012	07/05/2012	07/05/2012	07/13/2012	07/13/2012
Duration (h)	0.45	0.53	0.5	0.48	0.52	0.49	0.51	0.53	0.5	0.5	0.5
Distance Fished (km)	2.52	2.86	2.66	2.61	2.85	2.66	2.82	2.87	2.75	2.73	2.72
Mid-Latitude (^{o}N)	57.66	57.67	57.67	57.67	57.66	57.67	57.66	57.67	57.67	57.66	57.66
Mid-Longitude (^{o}W)	-160.27	-159.64	-159.02	-158.36	-168.4	-169.02	-169.65	-170.28	-170.9	-171.51	-172.16
Bottom Depth (m)	54	50	48	37	71	68	70	73	86	99	107
Bottom Temperature (^{o}C)	0.8	0.4	-0.2	0.3	0.5	0.1	-0.6	-0.2	0.6	1.2	1.3
Red King Crab											
Immature males	0	75	0	0	0	0	0	0	0	0	0
Mature males	104	151	0	0	0	0	0	73	76	0	0
Legal	104	75	0	0	0	0	0	73	76	0	0
Immature females	0	75	0	0	0	0	0	0	0	0	0
Mature females	313	226	164	0	0	0	0	0	0	0	0
Total weight (kg)	6.19	9.07	3.02	0.00	0.00	0.00	0.00	4.18	3.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	0	0	82	0	20762	38953	20035	7128	9114	69	68
Mature males	0	0	0	0	2736	581	152	364	2718	0	68
Legal	0	0	0	0	1163	332	0	73	799	0	68
Immature females	0	75	0	0	3955	11966	19248	3491	2718	415	0
Mature females	0	0	0	0	565	342	0	218	2558	0	0
Total weight (kg)	0.00	0.00	0.05	0.00	43.23	39.64	30.58	14.43	41.42	0.14	1
Opilio Tanner Crab											
Immature males	0	0	0	0	16591	128002	15291	4582	17605	554	3809
Mature males	0	0	0	0	1008	1328	1217	2764	25992	692	5986
Legal	0	0	0	0	5195	4649	4793	6110	43219	969	7211
Immature females	0	0	0	0	0	160708	11716	218	0	0	6803
Mature females	0	0	0	0	58070	39181	9510	2327	8160	69	131019
Total weight (kg)	0.00	0.00	0.00	0.00	102.63	147.25	72.69	27.07	207.34	7.16	185.30
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	9149	6475	533	364	302	0	0
Males $\geq$ 78 mm	0	0	0	0	18685	1245	533	727	604	0	0
Immature females	0	0	0	0	0	1743	0	0	0	0	0
Mature females	0	0	0	0	5660	3403	2206	1600	1284	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	64.87	9.85	4.20	5.13	4.24	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	I-25	I-26	IH1918	IH2019	IH2120	IH2221	J-01	J-02	J-03	J-04	J-05
Start Date	07/13/2012	07/13/2012	07/01/2012	07/01/2012	07/05/2012	07/04/2012	06/25/2012	06/25/2012	06/25/2012	06/25/2012	06/26/2012
Duration (h)	0.54	0.54	0.51	0.47	0.49	0.51	0.48	0.53	0.53	0.51	0.53
Distance Fished (km)	3.06	2.94	2.71	2.6	2.74	2.7	2.63	2.88	2.89	2.78	2.84
Mid-Latitude (^{o}N)	57.67	57.69	57.5	57.5	57.5	57.5	57.99	58	58	58	58
Mid-Longitude (^{o}W)	-172.8	-173.4	-168.75	-169.37	-169.98	-170.59	-167.8	-167.16	-166.53	-165.9	-165.25
Bottom Depth (m)	120	147	71	70	68	74	67	64	62	55	50
Bottom Temperature (^{o}C)	1.6	2.5	0.2	0.4	-0.2	0.6	0.4	0.5	0.7	1.2	2.3
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	77	0
Legal	0	0	0	0	0	0	0	0	0	77	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	79	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	3.72	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	81	0	0	0	0	0	0	0
Legal	0	0	0	81	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	86	0	0	0	0
Mature females	0	0	0	81	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	3.88	0.00	0.00	0.13	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	62	1042	8774	48487	8210	3393	0	139	0	0	0
Mature males	0	130	1097	694	644	2052	0	0	0	0	0
Legal	0	130	253	162	241	1184	0	0	0	0	0
Immature females	0	2019	3121	48797	4588	1184	0	0	0	77	0
Mature females	0	0	84	1764	1288	2604	0	0	0	0	0
Total weight (kg)	0.02	2.09	17.69	70.65	25.95	22.87	0.00	0.21	0.00	0.02	0.00
Opilio Tanner Crab											
Immature males	3168	326	1772	31943	2415	1578	172981	1735	2098	0	0
Mature males	1926	2671	422	4216	2173	1815	6919	278	350	0	0
Legal	2982	2996	1350	15566	2978	2289	21190	625	560	0	0
Immature females	13853	0	253	20025	0	0	2768	0	70	0	0
Mature females	214635	195	7761	67129	2173	552	43072	278	140	77	0
Total weight (kg)	239.39	29.85	15.38	136.08	18.03	11.55	250.76	4.75	5.13	0.06	0.00
Hybrid Tanner Crab											
Males ≤ 77 mm	0	0	1181	0	161	79	0	0	0	0	0
Males ≥ 78 mm	0	0	1265	0	1046	552	0	0	140	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	1350	0	322	710	0	0	0	0	0
Total weight (kg)	0.00	0.00	6.52	0.00	3.70	3.01	0.00	0.00	0.42	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	J-06	J-07	J-08	J-09	J-10	J-11	J-12	J-13	J-14	J-15	J-16
Start Date	06/11/2012	06/11/2012	06/10/2012	06/10/2012	06/09/2012	06/07/2012	06/06/2012	06/06/2012	06/05/2012	06/05/2012	06/04/2012
Duration (h)	0.54	0.5	0.5	0.5	0.52	0.48	0.54	0.53	0.52	0.5	0.49
Distance Fished (km)	3.03	2.81	2.87	2.9	2.89	2.73	2.96	2.89	2.86	2.67	2.63
Mid-Latitude (^{o}N)	58	58	58	57.99	57.99	58	58	58	58	58	58
Mid-Longitude (^{o}W)	-164.61	-164	-163.38	-162.76	-162.12	-161.49	-160.84	-160.21	-159.61	-158.98	-158.3
Bottom Depth (m)	46	46	43	41	37	55	45	50	41	42	35
Bottom Temperature (^{o}C)	1.7	1.6	2.2	2.2	2.4	2.6	2	0.4	0.5	1	1
Red King Crab											
Immature males	0	0	0	76	220	652	573	285	148	81	285
Mature males	68	80	155	76	367	0	286	71	74	81	0
Legal	68	0	78	76	220	0	215	71	0	81	0
Immature females	0	0	0	153	0	489	501	356	222	81	285
Mature females	68	160	155	306	294	163	430	214	222	0	0
Total weight (kg)	3.38	3.22	6.34	7.79	17.58	9.65	22.68	9.08	9.00	3.91	0.98
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	0	0	78	0	0	0	0	71	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	71	74	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.06	0.02	0.00	0.00
Opilio Tanner Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hybrid Tanner Crab											
Males ≤ 77 mm	0	0	0	0	0	0	0	0	0	0	0
Males ≥ 78 mm	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	J-18	J-19	J-20	J-21	J-22	J-23	J-24	J-25	J-26	JI1918	JI2019
Start Date	06/30/2012	06/30/2012	06/30/2012	07/05/2012	07/05/2012	07/12/2012	07/12/2012	07/13/2012	07/13/2012	07/01/2012	07/01/2012
Duration (h)	0.52	0.51	0.52	0.54	0.51	0.54	0.47	0.57	0.54	0.51	0.49
Distance Fished (km)	2.84	2.85	2.77	3.05	2.93	2.92	2.63	3.18	2.88	2.82	2.69
Mid-Latitude (^{o}N)	58	58	58	58	58	58	58	58	58	57.83	57.83
Mid-Longitude (^{o}W)	-168.43	-169.09	-169.7	-170.34	-170.98	-171.62	-172.25	-172.88	-173.5	-168.73	-169.36
Bottom Depth (m)	70	70	70	74	87	99	105	109	117	72	66
Bottom Temperature (^{o}C)	0.3	-0.2	-0.2	-0.6	-0.6	0.8	1.1	1.1	1.8	0	0
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	80	0	0	0	0	0	0	0	0	0	0
Legal	80	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	3.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	7235	19105	35315	10237	2455	1131	835	60	132	28928	79257
Mature males	804	79	169	68	126	67	152	119	264	1187	670
Legal	402	0	0	0	0	0	152	119	264	396	83
Immature females	1668	3773	29369	8998	944	1531	1063	0	526	3348	42453
Mature females	0	0	0	0	189	133	0	0	0	0	674
Total weight (kg)	13.95	23	37.93	19.98	5.59	2.23	0.96	1.39	3.84	41.08	88.05
Opilio Tanner Crab											
Immature males	149990	50217	42425	13932	2329	2396	3340	6429	4155	47496	52166
Mature males	3780	6099	5145	2582	2203	466	2201	4584	3759	3087	1581
Legal	16728	17346	11471	9107	3650	1198	4099	6846	4946	6174	5907
Immature females	4182	20673	82068	29834	504	3927	683	27800	2308	33168	53913
Mature females	60077	68910	79369	60824	4280	30813	2125	268598	134532	92538	39103
Total weight (kg)	242.82	161.68	145.39	114.53	23.37	34.85	25.93	342.43	175.32	144.93	101.30
Hybrid Tanner Crab											
Males $\leq$ 77 mm	40051	22653	21086	2447	252	133	0	0	0	11716	8070
Males $\geq$ 78 mm	18337	2455	3796	883	63	0	0	119	0	5304	2995
Immature females	0	1267	3796	680	0	133	0	0	0	0	666
Mature females	3297	7525	21845	7204	378	67	0	0	0	4987	7072
Total weight (kg)	84.58	35.60	42.37	13.86	1.07	0.19	0.00	1.26	0.00	29.91	20.33

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	JI2120	JI2221	K-01	K-02	K-03	K-04	K-05	K-06	K-07	K-08	K-09
Start Date	07/05/2012	07/05/2012	06/25/2012	06/25/2012	06/26/2012	06/26/2012	06/26/2012	06/11/2012	06/11/2012	06/10/2012	06/10/2012
Duration (h)	0.48	0.52	0.49	0.47	0.48	0.49	0.49	0.54	0.48	0.49	0.54
Distance Fished (km)	2.71	2.78	2.75	2.53	2.66	2.72	2.81	2.98	2.67	2.61	3.03
Mid-Latitude (^{o}N)	57.81	57.83	58.32	58.33	58.33	58.33	58.33	58.33	58.34	58.33	58.34
Mid-Longitude (^{o}W)	-170.01	-170.61	-167.83	-167.2	-166.55	-165.92	-165.29	-164.63	-163.99	-163.36	-162.72
Bottom Depth (m)	72	78	61	53	48	44	45	44	41	38	32
Bottom Temperature (^{o}C)	-0.4	-0.2	1.1	1.3	1.6	2.1	2.6	1.9	2.3	3.2	3
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	380	72
Legal	0	0	0	0	0	0	0	0	0	285	72
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	285	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.12	2.19
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	17662	14251	0	0	191	83	0	72	0	0	0
Mature males	571	613	0	0	0	0	0	0	0	0	0
Legal	326	154	0	0	0	0	0	0	0	0	0
Immature females	13428	3182	0	0	0	0	0	72	0	0	0
Mature females	0	152	0	0	0	0	0	0	0	0	0
Total weight (kg)	28.61	27.35	0.00	0.00	0.15	0.01	0.00	0.11	0.00	0.00	0.00
Opilio Tanner Crab											
Immature males	22255	9460	642	0	0	0	0	0	0	0	0
Mature males	6848	5691	0	0	0	0	0	0	0	0	0
Legal	13206	12306	80	0	0	0	0	0	0	0	0
Immature females	17853	461	0	0	0	0	0	0	0	0	0
Mature females	47200	8614	161	0	0	0	0	0	0	0	0
Total weight (kg)	107.62	51.97	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	815	461	0	0	0	0	0	0	0	0	0
Males $\geq$ 78 mm	1549	923	0	0	0	0	0	0	0	0	0
Immature females	0	154	0	0	0	0	0	0	0	0	0
Mature females	2038	1077	0	0	0	0	0	0	0	0	0
Total weight (kg)	6.53	3.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	K-10	K-11	K-12	K-13	K-14	K-18	K-19	K-20	K-21	K-22	K-23
Start Date	06/10/2012	06/07/2012	06/06/2012	06/06/2012	06/06/2012	06/30/2012	06/30/2012	06/30/2012	07/06/2012	07/06/2012	07/12/2012
Duration (h)	0.51	0.34	0.42	0.55	0.54	0.49	0.48	0.51	0.5	0.51	0.51
Distance Fished (km)	2.84	1.84	2.53	3.12	3.03	2.65	2.72	2.78	2.79	2.85	2.83
Mid-Latitude (^{o}N)	58.32	58.34	58.32	58.28	58.34	58.34	58.34	58.33	58.32	58.34	58.34
Mid-Longitude (^{o}W)	-162.06	-161.42	-160.77	-159.97	-159.55	-168.48	-169.11	-169.74	-170.4	-171.03	-171.66
Bottom Depth (m)	46	34	24	42	26	65	68	70	74	84	95
Bottom Temperature (^{o}C)	3.1	5.5	7	1.8	2.8	0.7	-0.1	-0.6	-0.6	-1.3	0.1
Red King Crab											
Immature males	75	0	0	746	0	0	0	0	0	0	0
Mature males	150	0	86	0	74	82	0	0	0	0	0
Legal	75	0	0	0	74	82	0	0	0	0	0
Immature females	0	0	0	1493	0	0	0	0	0	0	0
Mature females	75	0	86	68	148	82	0	0	0	0	0
Total weight (kg)	6.69	0.00	2.71	11.40	5.98	4.22	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	0	0	0	0	0	658	5220	19318	40500	1089	1683
Mature males	0	0	0	0	0	0	80	0	955	0	0
Legal	0	0	0	0	0	0	80	0	220	0	0
Immature females	0	0	0	0	0	329	2409	3422	22551	2314	1077
Mature females	0	0	0	0	0	0	0	0	0	68	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.92	6.01	16.6	48.84	2.9	1.89
Opilio Tanner Crab											
Immature males	0	0	0	0	0	1480	63847	37591	51490	9528	7404
Mature males	0	0	0	0	0	575	2088	6976	73	1633	3702
Legal	0	0	0	0	0	575	3373	11006	514	7759	9087
Immature females	0	0	0	0	0	329	201097	43791	147123	2042	942
Mature females	0	0	0	0	0	411	12448	30848	61699	13884	337
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	5.08	99.07	115.90	116.29	51.46	41.58
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	0	0	4256	19144	3379	0	0
Males $\geq$ 78 mm	0	0	0	0	0	0	562	2480	367	0	0
Immature females	0	0	0	0	0	0	2088	2015	3012	68	0
Mature females	0	0	0	0	0	82	1446	15734	3379	272	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.07	5.74	34.70	18.87	0.33	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	K-24	K-25	K-26	K-27	L-01	L-02	L-03	L-04	L-05	L-06	L-07
Start Date	07/12/2012	07/12/2012	07/12/2012	07/12/2012	06/27/2012	06/27/2012	06/27/2012	06/26/2012	06/26/2012	06/11/2012	06/11/2012
Duration (h)	0.49	0.56	0.49	0.57	0.53	0.53	0.49	0.48	0.51	0.52	0.49
Distance Fished (km)	2.69	3.26	2.75	3.14	2.84	2.84	2.8	2.67	2.81	2.87	2.69
Mid-Latitude (^{o}N)	58.33	58.33	58.33	58.33	58.66	58.67	58.67	58.66	58.67	58.67	58.67
Mid-Longitude (^{o}W)	-172.3	-172.93	-173.57	-174.3	-167.87	-167.21	-166.56	-165.92	-165.3	-164.65	-164.01
Bottom Depth (m)	103	110	116	175	47	44	42	37	39	37	34
Bottom Temperature (^{o}C)	0.4	0.7	1.6	2.6	2.1	2.4	2.3	3.2	2.9	2.7	2.8
Red King Crab											
Immature males	0	0	0	0	0	0	86	0	0	0	0
Mature males	0	0	0	0	0	77	86	0	77	79	0
Legal	0	0	0	0	0	77	0	0	77	79	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	153	0	98	77	79	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	5.25	2.35	0.63	3.87	3.61	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	0	262	0	895	0	0	0	0	0	0	0
Mature males	0	52	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	589	472	0	1074	0	0	0	0	0	0	0
Mature females	0	0	0	60	0	0	0	0	0	0	0
Total weight (kg)	0.40	0.75	0.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Opilio Tanner Crab											
Immature males	26132	1677	3341	0	0	0	0	0	0	0	0
Mature males	3754	2621	4091	0	0	0	0	0	0	0	0
Legal	9275	3198	4978	0	0	0	0	0	0	0	0
Immature females	241147	1940	31434	119	0	0	0	0	0	0	0
Mature females	795653	15044	166647	0	0	0	0	0	0	0	0
Total weight (kg)	764.59	51.26	195.18	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	0	0	0	0	0	0	0
Males $\geq$ 78 mm	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	52	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	L-08	L-09	L-18	L-19	L-20	L-21	L-22	L-23	L-24	L-25	L-26
Start Date	06/10/2012	06/10/2012	06/30/2012	06/30/2012	06/30/2012	07/06/2012	07/06/2012	07/12/2012	07/11/2012	07/12/2012	07/12/2012
Duration (h)	0.53	0.54	0.48	0.51	0.52	0.53	0.52	0.5	0.5	0.55	0.58
Distance Fished (km)	2.93	2.98	2.63	2.79	2.84	2.93	2.87	2.77	2.68	3.09	3.22
Mid-Latitude (^{o}N)	58.67	58.65	58.66	58.66	58.67	58.67	58.67	58.67	58.68	58.67	58.67
Mid-Longitude (^{o}W)	-163.35	-162.73	-168.52	-169.15	-169.79	-170.44	-171.08	-171.71	-172.36	-173	-173.63
Bottom Depth (m)	32	27	53	62	67	73	83	92	101	113	127
Bottom Temperature (^{o}C)	2.9	4	1.1	0	-0.4	-0.9	-1.1	-1.1	-0.5	0.8	1.5
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	93	0	0	0	0	0	0	0	0
Legal	0	0	93	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	93	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	3.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	0	0	0	753	883	2535	627	494	73	60	115
Mature males	0	0	0	0	0	0	0	0	0	120	115
Legal	0	0	0	0	0	0	0	0	0	120	57
Immature females	0	0	0	527	294	1918	557	705	219	60	172
Mature females	0	0	0	0	0	0	0	71	73	239	57
Total weight (kg)	0.00	0.00	0.00	1.04	0.64	3.42	0.89	0.55	0.2	1.64	1.58
Opilio Tanner Crab											
Immature males	0	0	744	376	22251	18839	7452	16996	7154	3705	2634
Mature males	0	0	0	0	964	685	348	635	2774	5259	3092
Legal	0	0	0	0	2373	8769	4109	8040	5986	7530	4008
Immature females	0	0	372	828	17801	18976	696	846	7227	896	1317
Mature females	0	0	0	0	27443	11989	3622	3526	6132	5976	25305
Total weight (kg)	0.00	0.00	0.12	0.20	51.52	60.26	22.84	47.03	44.47	66.70	71.31
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	2077	411	70	282	0	0	0
Males $\geq$ 78 mm	0	0	0	0	74	0	0	71	0	0	57
Immature females	0	0	0	0	0	0	0	71	0	0	0
Mature females	0	0	0	0	1187	548	70	0	0	120	57
Total weight (kg)	0.00	0.00	0.00	0.00	1.41	0.85	0.18	0.25	0.00	0.19	0.69

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	L-27	L-28	L-29	L-30	L-31	M-01	M-02	M-03	M-04	M-05	M-06
Start Date	07/11/2012	07/20/2012	07/19/2012	07/19/2012	07/19/2012	06/28/2012	06/27/2012	06/27/2012	06/26/2012	06/26/2012	06/11/2012
Duration (h)	0.37	0.49	0.58	0.57	0.58	0.5	0.5	0.48	0.49	0.53	0.54
Distance Fished (km)	2.06	2.69	3.07	3.17	3.22	2.77	2.76	2.78	2.78	3	3
Mid-Latitude (^{o}N)	58.67	58.72	58.67	58.67	58.67	59	59	58.99	59.01	59.01	59
Mid-Longitude (^{o}W)	-174.27	-174.89	-175.55	-176.21	-176.83	-167.89	-167.23	-166.57	-165.94	-165.29	-164.66
Bottom Depth (m)	156	164	135	140	135	43	39	34	30	30	27
Bottom Temperature (^{o}C)	1.9	2.2	1.9	2.3	2.3	-0.2	2.6	3.6	4.2	--	4
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	94	0	0
Mature males	0	0	0	0	0	0	164	98	0	0	0
Legal	0	0	0	0	0	0	164	98	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	82	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	5.61	2.44	0.31	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	181	4433	4881	624	336	0	0	0	0	0	0
Mature males	543	0	0	0	0	0	0	0	0	0	0
Legal	543	0	0	0	0	0	0	0	0	0	0
Immature females	91	5403	5869	680	0	0	0	0	0	0	0
Mature females	0	0	872	57	0	0	0	0	0	0	0
Total weight (kg)	3.94	1.92	10.24	1.1	0.65	0.00	0.00	0.00	0.00	0.00	0.00
Opilio Tanner Crab											
Immature males	10046	554	755	794	56	0	0	0	0	0	0
Mature males	32220	0	291	284	56	0	0	0	0	0	0
Legal	37831	0	349	340	56	0	0	0	0	0	0
Immature females	0	831	639	113	168	0	0	0	0	0	0
Mature females	1358	0	814	0	0	0	0	0	0	0	0
Total weight (kg)	224.36	0.07	5.65	3.74	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	0	0	0	0	0	0	0
Males $\geq$ 78 mm	543	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	4.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	M-07	M-08	M-18	M-19	M-20	M-21	M-22	M-23	M-24	M-25	M-26
Start Date	06/11/2012	06/10/2012	06/28/2012	06/30/2012	06/29/2012	07/06/2012	07/06/2012	07/11/2012	07/11/2012	07/11/2012	07/11/2012
Duration (h)	0.51	0.55	0.53	0.5	0.51	0.48	0.53	0.48	0.48	0.51	0.5
Distance Fished (km)	2.8	2.91	2.96	2.79	2.84	2.63	2.86	2.62	2.68	2.92	2.76
Mid-Latitude (^{o}N)	59	59	58.99	59.01	59	59	59	59.01	58.99	59	59
Mid-Longitude (^{o}W)	-164	-163.35	-168.54	-169.17	-169.82	-170.49	-171.13	-171.79	-172.43	-173.09	-173.73
Bottom Depth (m)	27	22	47	53	64	71	78	86	98	107	117
Bottom Temperature (^{o}C)	3.8	4	-1.2	-1.3	-1	-1.2	-1.3	-1	-0.6	0.3	0.9
Red King Crab											
Immature males	0	0	72	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	82	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	1.26	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	68	71
Legal	0	0	0	0	0	0	0	0	0	68	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15	1.12
Bairdi Tanner Crab											
Immature males	0	0	0	0	0	3119	555	227	1000	271	71
Mature males	0	0	0	0	0	0	0	0	0	68	0
Legal	0	0	0	0	0	0	0	0	0	68	0
Immature females	0	0	0	0	0	880	139	152	643	339	0
Mature females	0	0	0	0	0	0	0	0	0	204	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	1.46	0.3	0.17	0.89	1.69	0.29
Opilio Tanner Crab											
Immature males	0	0	1081	12699	2137	20871	15963	18334	7074	6786	357
Mature males	0	0	0	0	158	480	139	303	1143	1221	929
Legal	0	0	0	79	1108	5118	6246	4773	5002	4072	1072
Immature females	0	0	1153	28494	158	22550	1180	2727	357	4207	4145
Mature females	0	0	0	556	950	12634	9439	24546	1786	10247	8718
Total weight (kg)	0.00	0.00	0.27	3.47	5.61	38.77	42.26	57.51	24.98	36.71	18.10
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	216	0	79	800	0	0	71	0	0
Males $\geq$ 78 mm	0	0	0	0	0	160	0	0	143	0	0
Immature females	0	0	0	0	0	0	0	0	71	0	0
Mature females	0	0	0	0	0	0	139	152	0	136	71
Total weight (kg)	0.00	0.00	0.02	0.00	0.13	0.83	0.15	0.18	0.74	0.22	0.13

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	M-27	M-28	M-29	M-30	M-31	M-32	N-01	N-02	N-03	N-04	N-05
Start Date	07/11/2012	07/20/2012	07/20/2012	07/20/2012	07/19/2012	07/19/2012	06/28/2012	06/27/2012	06/27/2012	06/26/2012	06/26/2012
Duration (h)	0.54	0.51	0.57	0.56	0.57	0.56	0.47	0.51	0.5	0.5	0.54
Distance Fished (km)	3.21	2.77	3.14	3.27	3.26	3.03	2.56	2.83	2.71	2.73	2.98
Mid-Latitude (^{o}N)	59	59	59	59	59	59	59.32	59.33	59.34	59.32	59.33
Mid-Longitude (^{o}W)	-174.37	-175.03	-175.73	-176.31	-176.95	-177.6	-167.91	-167.27	-166.6	-165.95	-165.31
Bottom Depth (m)	127	130	134	135	136	134	40	32	28	25	22
Bottom Temperature (^{o}C)	1.4	1.4	1.7	1.1	1.6	1.7	-0.8	1.9	3.5	4.7	5.5
Red King Crab											
Immature males	0	0	0	0	0	0	111	0	0	0	0
Mature males	0	0	0	0	0	0	111	80	99	0	0
Legal	0	0	0	0	0	0	111	0	99	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	111	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	5.96	1.45	3.58	0.00	0.00
Blue King Crab											
Immature males	56	135	0	0	0	0	0	0	0	0	0
Mature males	56	472	0	0	0	0	0	0	0	0	0
Legal	56	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	2.86	9.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	56	2834	2508	1557	217	1448	0	0	0	0	0
Mature males	112	135	119	58	0	543	0	0	0	0	0
Legal	56	67	60	58	0	422	0	0	0	0	0
Immature females	56	2362	1075	750	109	845	0	0	0	0	0
Mature females	56	405	597	404	0	60	0	0	0	0	0
Total weight (kg)	1.06	4.17	8.32	5.15	0.34	9.37	0.00	0.00	0.00	0.00	0.00
Opilio Tanner Crab											
Immature males	615	540	1135	2422	54	0	111	0	0	0	0
Mature males	2236	4048	2568	173	0	0	0	0	0	0	0
Legal	2683	4116	2807	173	0	0	0	0	0	0	0
Immature females	224	1349	537	4613	326	0	0	0	0	0	0
Mature females	783	135	239	461	0	0	0	0	0	0	0
Total weight (kg)	26.21	39.57	27.45	4.59	0.15	0.00	0.12	0.00	0.00	0.00	0.00
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	0	0	0	0	0	0	0
Males $\geq$ 78 mm	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	N-06	N-07	N-18	N-19	N-20	N-21	N-22	N-23	N-24	N-25	N-26
Start Date	06/11/2012	06/11/2012	06/28/2012	06/29/2012	06/29/2012	07/06/2012	07/06/2012	07/11/2012	07/10/2012	07/10/2012	07/10/2012
Duration (h)	0.55	0.51	0.51	0.48	0.4	0.48	0.53	0.5	0.48	0.49	0.56
Distance Fished (km)	3.08	2.77	2.81	2.7	2.1	2.58	2.86	2.78	2.66	2.82	3.16
Mid-Latitude (^{o}N)	59.33	59.33	59.34	59.34	59.34	59.33	59.33	59.34	59.33	59.34	59.33
Mid-Longitude (^{o}W)	-164.66	-164.02	-168.58	-169.24	-169.87	-170.54	-171.18	-171.84	-172.52	-173.17	-173.8
Bottom Depth (m)	22	22	42	50	61	67	75	79	89	100	110
Bottom Temperature (^{o}C)	5.2	5.9	-1.2	-1.3	-1.4	-1.4	-1.4	-1.1	-0.8	-0.1	0.4
Red King Crab											
Immature males	0	0	0	88	0	0	0	0	0	0	0
Mature males	0	0	161	263	0	0	0	0	0	0	0
Legal	0	0	81	175	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	263	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	3.81	11.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	149	0	246
Legal	0	0	0	0	0	0	0	0	149	0	246
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0.00	6.96
Bairdi Tanner Crab											
Immature males	0	0	0	0	0	504	69	68	223	214	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	69	0	74	214	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.15	0.06	0.09	0.20	0.39	0.00
Opilio Tanner Crab											
Immature males	0	0	1533	14537	1136	8910	9560	7808	1415	4715	123
Mature males	0	0	0	0	0	0	138	0	74	214	1971
Legal	0	0	0	88	206	1513	2063	548	521	1143	2033
Immature females	0	0	1614	21630	1032	2354	481	1233	149	429	0
Mature females	0	0	81	0	1239	7145	7841	13218	447	24645	0
Total weight (kg)	0.00	0.00	0.38	2.68	2.04	16.20	24.93	24.61	3.41	42.14	17.70
Hybrid Tanner Crab											
Males ≤ 77 mm	0	0	0	0	0	0	69	137	0	0	0
Males ≥ 78 mm	0	0	0	0	0	0	0	0	0	0	62
Immature females	0	0	0	0	0	0	69	0	0	71	0
Mature females	0	0	0	0	0	0	0	205	74	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.26	0.08	0.03	0.33

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	N-27	N-28	N-29	N-30	N-31	O-01	O-02	O-03	O-04	O-18	O-19
Start Date	07/10/2012	07/20/2012	07/20/2012	07/25/2012	07/25/2012	06/28/2012	06/27/2012	06/27/2012	06/27/2012	06/28/2012	06/29/2012
Duration (h)	0.52	0.5	0.56	0.49	0.56	0.48	0.53	0.5	0.5	0.51	0.49
Distance Fished (km)	2.89	2.73	3.1	2.74	3.15	2.67	2.89	2.8	2.74	2.84	2.66
Mid-Latitude (^{o}N)	59.33	59.32	59.33	59.35	59.33	59.66	59.67	59.66	59.6	59.67	59.67
Mid-Longitude (^{o}W)	-174.44	-175.1	-175.75	-176.39	-177.05	-167.95	-167.28	-166.63	-165.93	-168.62	-169.27
Bottom Depth (m)	121	133	137	135	149	35	29	27	26	40	47
Bottom Temperature (^{o}C)	1.1	1.4	1.7	1.2	1.6	0.6	0.9	3.7	4.9	-1	-1.3
Red King Crab											
Immature males	0	0	0	0	0	110	0	0	0	0	90
Mature males	0	0	0	0	0	0	0	0	0	154	90
Legal	0	0	0	0	0	0	0	0	0	77	90
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	77	180
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	6.18	7.94
Blue King Crab											
Immature males	0	70	0	0	0	0	0	0	0	0	0
Mature males	69	209	0	0	0	0	0	0	0	0	0
Legal	69	209	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	1.52	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	69	2369	119	323	61	0	0	0	0	0	0
Mature males	138	139	0	65	0	0	0	0	0	0	0
Legal	69	70	0	0	0	0	0	0	0	0	0
Immature females	69	2439	119	129	0	0	0	0	0	0	0
Mature females	138	348	59	65	0	0	0	0	0	0	0
Total weight (kg)	1.48	4.6	0.56	1.26	0.3	0.00	0.00	0.00	0.00	0.00	0.00
Opilio Tanner Crab											
Immature males	1654	35185	594	775	245	0	0	0	0	154	5847
Mature males	5167	2508	1128	582	307	0	0	0	0	0	0
Legal	5994	18045	1544	646	430	0	0	0	0	0	180
Immature females	2549	49189	3444	388	245	0	0	0	0	154	7017
Mature females	7648	125063	4275	129	307	0	0	0	0	0	630
Total weight (kg)	49.34	241.74	14.24	5.48	4.66	0.00	0.00	0.00	0.00	0.02	2.60
Hybrid Tanner Crab											
Males $\leq$ 77 mm	69	279	0	388	0	0	0	0	0	0	90
Males $\geq$ 78 mm	69	70	0	65	0	0	0	0	0	0	0
Immature females	0	279	0	65	0	0	0	0	0	0	0
Mature females	69	348	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.58	0.91	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.10

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	O-20	O-21	O-22	O-23	O-24	O-25	O-26	O-27	O-28	O-29	O-30
Start Date	06/29/2012	07/06/2012	07/06/2012	07/10/2012	07/10/2012	07/09/2012	07/09/2012	07/10/2012	07/20/2012	07/20/2012	07/25/2012
Duration (h)	0.49	0.49	0.5	0.49	0.49	0.5	0.49	0.51	0.51	0.56	0.49
Distance Fished (km)	2.68	2.74	2.76	2.7	2.67	2.81	2.68	2.81	2.79	3.09	2.71
Mid-Latitude (^{o}N)	59.67	59.67	59.67	59.67	59.67	59.67	59.67	59.67	59.65	59.67	59.69
Mid-Longitude (^{o}W)	-169.92	-170.59	-171.25	-171.92	-172.57	-173.26	-173.86	-174.46	-175.11	-175.86	-176.55
Bottom Depth (m)	56	66	72	78	84	95	104	115	126	137	136
Bottom Temperature (^{o}C)	-1.4	-1.5	-1.5	-1.3	-1.2	-0.7	0.3	0.6	1	1.7	1
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	73	75	419	737	211	133	60	0
Legal	0	0	0	73	0	350	589	0	67	60	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	73	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	4.62	1.12	9.14	16.87	3.61	3.08	1.58	0.00
Bairdi Tanner Crab											
Immature males	0	0	150	0	226	350	295	141	133	60	277
Mature males	0	0	0	0	0	0	0	70	0	0	0
Legal	0	0	0	0	0	0	0	70	0	0	0
Immature females	0	0	0	0	75	70	295	0	267	60	0
Mature females	0	0	0	0	0	70	0	0	67	0	69
Total weight (kg)	0.00	0.00	0.04	0	0.21	0.41	0.73	0.73	0.79	0.04	0.62
Opilio Tanner Crab											
Immature males	3204	11435	10986	7168	755	5872	3241	8584	7004	1905	3256
Mature males	0	0	0	0	0	280	4273	1337	1134	536	2494
Legal	80	1345	1053	439	151	979	6557	3237	3402	1369	4780
Immature females	2563	374	602	3218	604	280	368	37011	143290	9226	1385
Mature females	2723	9866	10008	13311	75	4125	74	139599	155764	22500	2009
Total weight (kg)	4.91	26.17	23.80	22.39	1.46	15.43	35.01	162.90	225.23	39.90	30.60
Hybrid Tanner Crab											
Males ≤ 77 mm	80	224	75	146	0	70	0	0	0	0	208
Males ≥ 78 mm	0	0	0	0	0	0	0	0	0	0	69
Immature females	0	0	0	73	151	0	0	0	400	0	208
Mature females	0	0	0	146	0	70	0	141	1267	0	208
Total weight (kg)	0.06	0.06	0.04	0.13	0.02	0.09	0.00	0.25	1.68	0.00	0.64

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	O-31	ON2524	ON2625	P-01	P-18	P-19	P-20	P-21	P-22	P-23	P-24
Start Date	07/25/2012	07/10/2012	07/09/2012	06/28/2012	06/28/2012	06/29/2012	06/29/2012	07/07/2012	07/07/2012	07/07/2012	07/08/2012
Duration (h)	0.56	0.5	0.52	0.5	0.5	0.5	0.51	0.49	0.5	0.5	0.48
Distance Fished (km)	3.12	2.77	2.88	2.9	2.78	2.81	2.74	2.73	2.89	2.73	2.68
Mid-Latitude (^{o}N)	59.67	59.51	59.5	60.01	60	60	60	59.99	60	60	59.99
Mid-Longitude (^{o}W)	-177.14	-172.91	-173.51	-167.99	-168.65	-169.32	-169.97	-170.64	-171.32	-171.97	-172.59
Bottom Depth (m)	171	94	103	25	40	46	55	64	70	66	67
Bottom Temperature (^{o}C)	2.1	-0.6	0.1	3.3	-0.6	-1.2	-1.4	-1.5	-1.5	-1.5	-1.4
Red King Crab											
Immature males	0	0	0	179	0	0	0	0	0	0	0
Mature males	0	0	0	179	86	81	0	0	0	0	0
Legal	0	0	0	89	0	81	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	81	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	6.40	1.30	4.06	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	72	203	0	0	0	0	0	0	75	84
Mature males	0	936	473	0	0	0	0	68	0	0	84
Legal	0	576	203	0	0	0	0	0	0	0	84
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	19.50	7.31	0.00	0.00	0.00	0.00	1.09	0.00	0.36	1.87
Bairdi Tanner Crab											
Immature males	0	720	541	0	0	0	0	0	67	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	504	338	0	0	0	0	0	0	0	0
Mature females	62	0	203	0	0	0	0	0	0	0	0
Total weight (kg)	0.23	0.87	1.36	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Opilio Tanner Crab											
Immature males	247	2881	5073	0	86	2513	5415	6631	6207	3889	4018
Mature males	2346	432	1962	0	0	0	0	0	0	0	0
Legal	2531	1368	5208	0	0	0	0	406	467	0	0
Immature females	123	504	541	0	0	2999	1313	203	467	1047	4938
Mature females	309	288	203	0	0	0	3856	5616	5406	6731	502
Total weight (kg)	23.06	9.36	25.39	0.00	0.12	0.47	7.21	15.46	14.65	9.81	2.96
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	432	68	0	0	0	246	0	0	150	84
Males $\geq$ 78 mm	0	0	203	0	0	0	0	0	0	0	0
Immature females	0	216	0	0	0	0	0	0	0	75	0
Mature females	0	72	271	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.25	1.13	0.00	0.00	0.00	0.26	0.00	0.00	0.07	0.02

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	P-25	P-26	P-27	P-28	P-29	P-30	P-31	P-32	PO2423	PO2524	PO2625
Start Date	07/09/2012	07/10/2012	07/09/2012	07/21/2012	07/20/2012	07/25/2012	07/25/2012	07/25/2012	07/08/2012	07/08/2012	07/09/2012
Duration (h)	0.45	0.54	0.54	0.5	0.57	0.49	0.54	0.5	0.49	0.49	0.5
Distance Fished (km)	2.44	3.06	3.06	2.79	3.18	2.67	2.89	2.75	2.64	2.65	2.75
Mid-Latitude (^{o}N)	60.01	60	60	59.99	60	60	60	60	59.84	59.82	59.83
Mid-Longitude (^{o}W)	-173.26	-173.97	-174.6	-175.27	-175.94	-176.71	-177.22	-177.9	-172.25	-172.89	-173.57
Bottom Depth (m)	74	97	108	118	129	141	137	141	75	81	95
Bottom Temperature (^{o}C)	-1.1	-0.1	0.4	0.8		0.9	0.6	0.9	-1.3	-1.2	-0.6
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	53	0	0	0	0	0	0	0	0	70
Mature males	82	159	263	0	0	0	0	0	78	79	282
Legal	0	159	197	0	0	0	0	0	78	79	211
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	1.34	7.29	5.38	0.00	0.00	0.00	0.00	0.00	2.12	1.53	6.73
Bairdi Tanner Crab											
Immature males	823	53	0	136	0	0	0	0	78	79	352
Mature males	0	0	0	0	0	141	0	0	0	0	0
Legal	0	0	0	0	0	70	0	0	0	0	0
Immature females	329	0	0	273	119	1173	0	1906	78	79	70
Mature females	0	0	0	0	59	797	0	0	0	0	70
Total weight (kg)	0.6	0.06	0.00	0.45	0.38	4.42	0.00	4.12	0.17	0.08	0.39
Opilio Tanner Crab											
Immature males	32279	9722	6377	11328	7648	15047	2546	20213	2422	2373	3661
Mature males	0	106	0	341	830	2391	4886	4442	0	0	774
Legal	329	3825	2038	3480	2786	3024	6951	7182	0	395	3380
Immature females	68922	266	460	7302	23951	446705	275	150597	313	1582	1197
Mature females	22233	744	657	32687	47961	586278	0	97215	781	1819	2253
Total weight (kg)	42.66	29.98	15.46	62.05	93.89	767.08	45.67	253.54	3.66	4.58	17.82
Hybrid Tanner Crab											
Males $\leq$ 77 mm	2717	0	0	205	0	0	0	0	156	316	70
Males $\geq$ 78 mm	0	159	0	0	0	0	0	0	0	0	141
Immature females	165	0	0	0	0	2602	0	0	0	0	70
Mature females	823	425	0	205	0	5695	0	0	0	79	141
Total weight (kg)	1.52	1.62	0.00	0.66	0.00	7.09	0.00	0.00	0.15	0.31	0.82

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	PO2726	Q-01	Q-02	Q-18	Q-19	Q-20	Q-21	Q-22	Q-23	Q-25	Q-26
Start Date	07/10/2012	06/28/2012	06/28/2012	06/29/2012	06/29/2012	06/29/2012	07/07/2012	07/07/2012	07/07/2012	07/08/2012	07/09/2012
Duration (h)	0.53	0.5	0.49	0.48	0.5	0.51	0.49	0.49	0.52	0.26	0.32
Distance Fished (km)	3.05	2.76	2.77	2.68	2.79	2.84	2.72	2.66	2.86	1.44	1.82
Mid-Latitude (^{o}N)	59.83	60.33	60.33	60.33	60.33	60.33	60.33	60.33	60.34	60.29	60.33
Mid-Longitude (^{o}W)	-174.24	-167.98	-167.27	-168.67	-169.33	-170.02	-170.66	-171.35	-172.06	-173.38	-174.07
Bottom Depth (m)	106	32	32	37	43	53	61	66	62	62	90
Bottom Temperature (^{o}C)	0.4	3.5	4.2	-0.1	-1.1	-1.3	-1.4	-1.6	-1.4	-1.4	-0.9
Red King Crab											
Immature males	0	0	0	95	78	0	0	0	0	0	0
Mature males	0	187	0	95	0	77	0	0	0	0	0
Legal	0	94	0	95	0	77	0	0	0	0	0
Immature females	0	0	0	95	0	0	0	0	0	0	0
Mature females	0	94	0	95	0	0	0	0	0	0	0
Total weight (kg)	0.00	5.25	0.00	4.85	1.06	2.57	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	66	0	0	0	0	0	0	0	453	590	108
Mature males	790	0	0	0	0	0	0	0	76	737	431
Legal	527	0	0	0	0	0	0	0	0	0	108
Immature females	0	0	90	0	0	0	0	0	151	147	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	18.41	0.00	0.14	0.00	0.00	0.00	0.00	0.00	3.70	6.62	5.75
Bairdi Tanner Crab											
Immature males	0	0	0	0	0	0	0	0	76	0	216
Mature males	0	0	0	0	0	0	0	0	76	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	132	0	0	0	0	0	0	0	0	0	108
Mature females	66	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.13
Opilio Tanner Crab											
Immature males	5860	0	0	95	3506	10963	6355	12934	6877	4866	9163
Mature males	790	0	0	0	0	0	0	0	0	0	0
Legal	2436	0	0	0	0	154	64	387	151	0	216
Immature females	3292	0	0	95	4129	2239	64	1162	1058	6635	7330
Mature females	8888	0	0	0	0	8416	5720	5964	3401	295	34173
Total weight (kg)	11.33	0.00	0.00	0.02	0.61	17.62	16.01	21.23	11.39	1.52	26.41
Hybrid Tanner Crab											
Males $\leq$ 77 mm	0	0	0	0	0	0	0	0	76	0	755
Males $\geq$ 78 mm	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	755
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.85

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	Q-27	Q-28	Q-29	Q-30	Q-31	QP2423	QP2524	QP2625	QP2726	R-22	R-23
Start Date	07/09/2012	07/21/2012	07/21/2012	07/24/2012	07/24/2012	07/08/2012	07/08/2012	07/09/2012	07/09/2012	07/07/2012	07/07/2012
Duration (h)	0.49	0.51	0.54	0.48	0.49	0.5	0.5	0.5	0.54	0.49	0.51
Distance Fished (km)	2.75	2.87	3.01	2.72	2.69	2.86	2.74	2.76	2.96	2.65	2.76
Mid-Latitude (^{o}N)	60.33	60.33	60.33	60.34	60.36	60.17	60.15	60.13	60.17	60.66	60.67
Mid-Longitude (^{o}W)	-174.71	-175.39	-176.05	-176.76	-177.37	-172.32	-172.97	-173.76	-174.35	-171.43	-172.11
Bottom Depth (m)	103	112	123	138	149	57	59	87	101	63	61
Bottom Temperature (^{o}C)	0	0.8	1.3	1.1	0.7	-0.5	-1.4	-1.1	-0.1	-1.5	-1.3
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	537	684	0	66	0	0
Mature males	0	66	0	0	0	690	228	70	132	0	0
Legal	0	0	0	0	0	383	76	0	132	0	0
Immature females	0	0	0	0	0	0	380	0	0	0	0
Mature females	0	0	0	0	0	0	76	0	0	0	0
Total weight (kg)	0.00	1.25	0.00	0.00	0.00	15.77	7.49	1.53	4.52	0.00	0.00
Bairdi Tanner Crab											
Immature males	0	132	0	0	0	460	0	209	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	199	0	0	0	77	0	70	0	0	0
Mature females	0	132	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.64	0.00	0.00	0.00	0.16	0.00	0.28	0.00	0.00	0.00
Opilio Tanner Crab											
Immature males	3995	19322	7535	3473	2189	17256	380	14633	1776	30579	42292
Mature males	123	397	741	1945	1847	0	0	0	0	0	0
Legal	983	3507	2656	4237	3352	0	0	279	132	352	1317
Immature females	6577	662	65591	8544	68	23008	152	32402	526	3100	11578
Mature females	11126	35600	27731	11670	0	0	0	10940	1118	24731	43262
Total weight (kg)	24.57	78.18	90.61	38.32	19.42	3.77	0.12	25.24	4.07	63.52	93.08
Hybrid Tanner Crab											
Males ≤ 77 mm	0	926	0	0	0	0	0	557	0	0	0
Males ≥ 78 mm	0	199	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	70	0	0	0
Mature females	61	2051	0	139	0	0	0	209	0	0	0
Total weight (kg)	0.06	4.17	0.00	0.23	0.00	0.00	0.00	0.55	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	R-24	R-25	R-26	R-27	R-28	R-29	R-30	R-31	R-32	S-22	S-23
Start Date	07/08/2012	07/08/2012	07/22/2012	07/22/2012	07/21/2012	07/21/2012	07/24/2012	07/24/2012	07/24/2012	07/07/2012	07/07/2012
Duration (h)	0.51	0.51	0.49	0.49	0.51	0.55	0.5	0.48	0.53	0.49	0.51
Distance Fished (km)	2.91	2.77	2.71	2.69	2.81	3.06	2.83	2.7	2.9	2.67	2.79
Mid-Latitude (^{o}N)	60.67	60.67	60.67	60.66	60.67	60.67	60.67	60.66	60.67	60.98	61
Mid-Longitude (^{o}W)	-172.78	-173.47	-174.13	-174.83	-175.46	-176.2	-176.8	-177.47	-178.19	-171.49	-172.17
Bottom Depth (m)	44	66	87	98	106	120	129	145	161	60	63
Bottom Temperature (^{o}C)	0	-1.4	-0.9	-0.5	0.3	0.9	0.7	0.6	1.3	-1.5	-1.3
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	1640	72	0	66	0	0	0	0	0	0	0
Mature males	3143	0	0	66	0	0	0	0	0	0	0
Legal	1162	0	0	66	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	68	72	0	0	0	0	0	0	0	0	0
Total weight (kg)	78.49	0.72	0.00	3.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	68	0	71	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	65	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.13	0.00	0.15	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
Opilio Tanner Crab											
Immature males	13256	16176	12771	56685	16275	45157	8991	5736	142457	52198	46409
Mature males	0	0	0	0	130	902	1454	4423	0	0	0
Legal	0	0	426	4817	4557	6434	5223	8639	12938	216	0
Immature females	11206	25348	12487	40782	325	4630	397	207	330232	25703	38241
Mature females	6013	14443	22491	138975	4427	69148	66	138	135954	48526	38241
Total weight (kg)	15.45	23.84	37.16	244.46	45.06	233.27	32.07	47.98	499.00	92.36	78.98
Hybrid Tanner Crab											
Males ≤ 77 mm	68	289	0	66	0	0	132	0	0	0	0
Males ≥ 78 mm	0	0	0	0	0	0	66	0	0	0	0
Immature females	0	0	71	0	0	0	0	0	0	0	0
Mature females	0	0	71	0	65	0	66	0	0	0	0
Total weight (kg)	0.01	0.09	0.09	0.11	0.07	0.00	3.79	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	S-24	S-25	S-26	S-27	S-28	S-29	S-30	S-31	T-25	T-26	T-27
Start Date	07/08/2012	07/08/2012	07/22/2012	07/21/2012	07/21/2012	07/21/2012	07/24/2012	07/24/2012	07/23/2012	07/22/2012	07/22/2012
Duration (h)	0.51	0.53	0.5	0.5	0.49	0.57	0.53	0.53	0.5	0.5	0.57
Distance Fished (km)	2.79	2.89	2.73	2.75	2.7	3.07	2.78	2.89	2.68	2.7	3.18
Mid-Latitude (^{o}N)	61	61	60.98	61	60.99	61	61	61	61.33	61.32	61.33
Mid-Longitude (^{o}W)	-172.82	-173.5	-174.17	-174.89	-175.54	-176.28	-176.96	-177.64	-173.59	-174.32	-175
Bottom Depth (m)	67	75	83	92	102	112	121	135	74	78	87
Bottom Temperature (^{o}C)	-1.5	-1.6	-1.5	-1.4	-1.3	-0.1	0.4	0.7	-1.6	-1.6	-1.3
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	66	0	0	0	0	0	0	0	0	150	0
Legal	0	0	0	0	0	0	0	0	0	75	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	66	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0.00
Bairdi Tanner Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	63
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Opilio Tanner Crab											
Immature males	49316	15630	19112	34158	85087	14304	27088	19529	11050	59043	18197
Mature males	0	0	0	0	69	0	145	1024	0	0	0
Legal	0	0	595	744	10083	2934	4853	7511	0	224	0
Immature females	88795	17193	24392	30065	760	6113	217	6623	13218	69220	21494
Mature females	33075	23296	23648	43906	5111	4890	1231	2663	11330	48267	11032
Total weight (kg)	88.43	38.81	47.80	87.10	147.77	45.29	64.99	64.00	23.05	109.36	39.12
Hybrid Tanner Crab											
Males ≤ 77 mm	0	0	74	223	207	0	0	0	0	0	0
Males ≥ 78 mm	0	0	74	0	0	0	0	0	0	0	0
Immature females	0	74	74	0	0	0	0	0	0	0	0
Mature females	0	0	74	223	138	0	0	0	0	0	0
Total weight (kg)	0.00	0.03	0.42	0.53	0.38	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	T-28	T-29	T-30	U-25	U-26	U-27	U-28	U-29	V-25	V-26	V-27
Start Date	07/23/2012	07/23/2012	07/24/2012	07/23/2012	07/23/2012	07/22/2012	07/23/2012	07/23/2012	07/23/2012	07/23/2012	07/22/2012
Duration (h)	0.55	0.58	0.54	0.48	0.5	0.51	0.52	0.48	0.49	0.51	0.52
Distance Fished (km)	2.95	3.05	2.93	2.65	2.63	2.78	2.81	2.67	2.78	2.85	2.78
Mid-Latitude (^{o}N)	61.34	61.33	61.34	61.66	61.67	61.67	61.67	61.67	61.98	62	62
Mid-Longitude (^{o}W)	-175.66	-176.31	-176.98	-173.66	-174.44	-175.09	-175.79	-176.46	-173.74	-174.47	-175.17
Bottom Depth (m)	97	106	116	71	77	85	96	105	63	73	80
Bottom Temperature (^{o}C)	-1	-0.8	-0.7	-1.7	-1.6	-1	-0.6	-0.4	-1.6	-1.6	-1.4
Red King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	0	0	0
Legal	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blue King Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	77	0	0	0	0	0	0
Legal	0	0	0	0	77	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	2.03	0.00	0.00	0.00	0.00	0.00	0.00
Bairdi Tanner Crab											
Immature males	0	0	0	0	0	0	0	0	0	0	0
Mature males	0	0	0	0	0	0	0	0	75	0	0
Legal	0	0	0	0	0	0	0	0	75	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00
Opilio Tanner Crab											
Immature males	15869	46882	73276	223818	81678	26670	24294	26062	87758	121116	189225
Mature males	0	0	742	0	0	0	0	0	0	0	0
Legal	0	553	7955	0	0	0	212	0	0	0	0
Immature females	24350	67712	2562	294165	127012	43377	50572	45146	146766	163231	201131
Mature females	2570	34163	2359	30754	20439	4795	3471	21719	2792	13970	22155
Total weight (kg)	30.63	135.73	145.47	255.90	107.18	39.40	49.53	66.18	69.92	115.17	132.48
Hybrid Tanner Crab											
Males ≤ 77 mm	0	0	0	0	0	0	0	0	0	0	0
Males ≥ 78 mm	0	0	0	0	0	0	0	0	0	0	0
Immature females	0	0	0	0	0	0	0	0	0	0	0
Mature females	0	0	0	0	0	0	0	0	0	0	0
Total weight (kg)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	V-28	Z-05	B-08	C-09	D-10	E-10	E-11	E-12	F-11	F-12	F-13
Start Date	07/22/2012	06/14/2012	08/02/2012	08/02/2012	08/01/2012	08/01/2012	08/01/2012	07/31/2012	07/31/2012	07/31/2012	07/30/2012
Duration (h)	0.53	0.5	0.5	0.49	0.52	0.51	0.48	0.48	0.49	0.49	0.5
Distance Fished (km)	2.85	2.76	2.7	2.64	2.9	2.84	2.62	2.58	2.72	2.7	2.78
Mid-Latitude (^{o}N)	62	54.68	55.34	55.66	56	56.33	56.33	56.34	56.68	56.65	56.66
Mid-Longitude (^{o}W)	-175.82	-165.16	-163.42	-162.84	-162.27	-162.19	-161.6	-160.99	-161.58	-160.99	-160.36
Bottom Depth (m)	94	83	52	55	71	76	65	53	87	64	58
Bottom Temperature (^{o}C)	-0.9	3.5	6.4	5.9	--	1.5	3.2	6	1.3	3	4.4
Red King Crab											
Immature males	0	0	0	0	0	0	415	8942	0	3223	533
Mature males	0	0	329	89	715	475	2404	894	921	2673	304
Legal	0	0	329	89	501	408	1824	447	767	2122	228
Immature females	0	0	0	0	0	0	0	3666	0	314	0
Mature females	0	0	165	532	0	0	332	14129	0	6682	3348
Total weight (kg)	0.00	0.00	17.9	13.39	25.98	21.82	85.95	278.63	33.1	229.78	78.37
Blue King Crab											
Immature males	0	0									
Mature males	0	0									
Legal	0	0									
Immature females	0	0									
Mature females	0	0									
Total weight (kg)	0.00	0.00									
Bairdi Tanner Crab											
Immature males	0	0									
Mature males	0	0									
Legal	0	0									
Immature females	0	0									
Mature females	0	0									
Total weight (kg)	0.00	0.00									
Opilio Tanner Crab											
Immature males	92858	0									
Mature males	0	0									
Legal	766	0									
Immature females	93624	0									
Mature females	3129	0									
Total weight (kg)	108.61	0.00									
Hybrid Tanner Crab											
Males ≤ 77 mm	0	0									
Males ≥ 78 mm	0	0									
Immature females	0	0									
Mature females	0	0									
Total weight (kg)	0.00	0.00									

Appendix. Tow details, crab density (number nmi^{-2}), and catch weight at successful stations on the 2012 eastern Bering Sea bottom trawl survey.

Station	F-14	G-11	G-12	G-13	G-14	H-12	H-13	H-14	I-12	I-13	I-14
Start Date	07/30/2012	07/31/2012	07/31/2012	07/30/2012	07/29/2012	07/30/2012	07/30/2012	07/29/2012	07/29/2012	07/29/2012	07/29/2012
Duration (h)	0.48	0.48	0.48	0.5	0.48	0.5	0.51	0.49	0.48	0.48	0.48
Distance Fished (km)	2.53	2.66	2.68	2.86	2.53	2.67	2.76	2.75	2.77	2.59	2.62
Mid-Latitude (^{o}N)	56.68	56.99	57	57	57.03	57.33	57.32	57.34	57.67	57.67	57.66
Mid-Longitude (^{o}W)	-159.71	-161.55	-160.94	-160.36	-159.67	-160.92	-160.31	-159.68	-160.91	-160.29	-159.67
Bottom Depth (m)	37	69	67	64	55	65	58	53	57	55	50
Bottom Temperature (^{o}C)	7.9	1.5	2.1	3.1	4.9	2.5	3.8	4.2	3.2	3.5	4.3
Red King Crab											
Immature males	0	0	2227	768	388	394	1208	325	149	448	5564
Mature males	0	817	3426	279	97	1893	671	0	149	538	0
Legal	0	817	2312	70	97	1262	201	0	74	359	0
Immature females	0	0	86	209	97	0	0	163	0	0	6841
Mature females	0	82	9763	1955	1940	1025	3893	2195	297	2152	638
Total weight (kg)	0.00	27.42	248.49	56.45	32.17	77.45	112.56	42.61	12.42	50.62	42.25

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