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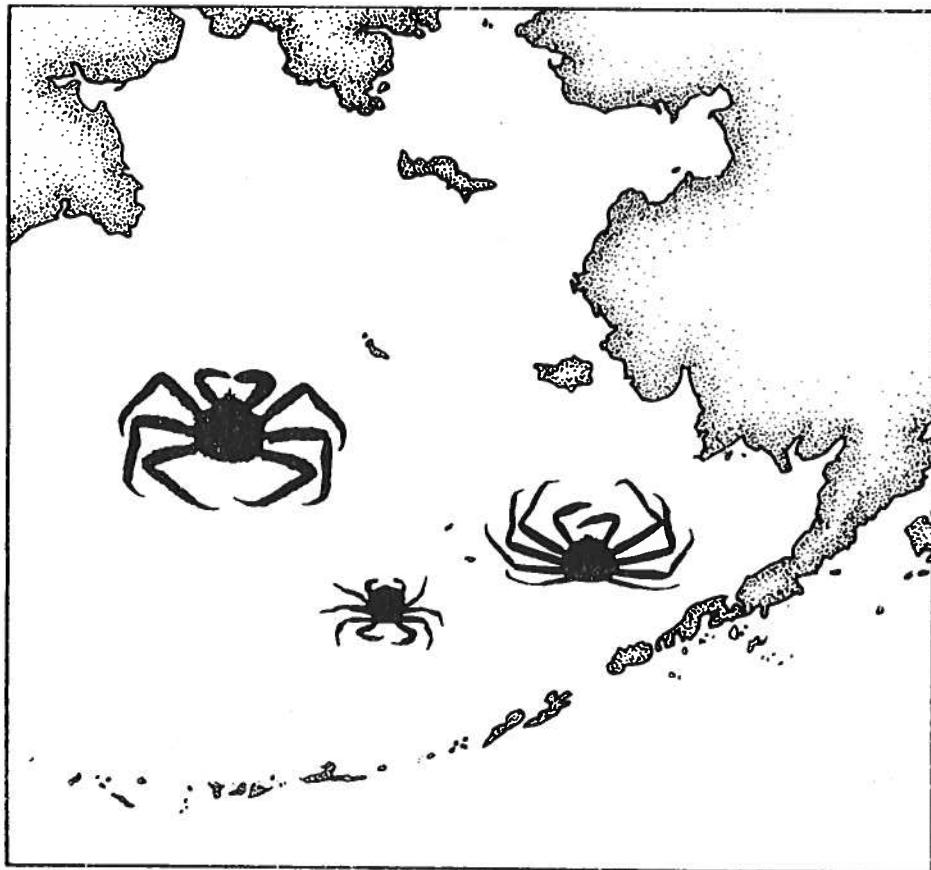
**National Marine  
Fisheries Service**

**U S DEPARTMENT OF COMMERCE**

## **NWAFC PROCESSED REPORT 82-13**

### **REPORT TO INDUSTRY ON THE 1982 EASTERN BERING SEA CRAB SURVEY**

**OCTOBER 1982**



This report does not constitute a publication and is for information only.  
All data herein are to be considered provisional.

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**Northwest and Alaska Fisheries Center Processed Report 82-13**

**Report to Industry on the**

**1982**

**Eastern Bering Sea**

**Crab Survey**

**by**

**R. S. Otto, R.A. MacIntosh, T.M. Armetta, and W.S. Meyers**

**National Marine Fisheries Service  
Northwest and Alaska Fisheries Center  
Kodiak Facility  
P.O. Box 1638  
Kodiak, Alaska 99615**

**October 1982**

## The 1982 Eastern Bering Sea Survey

An annual trawl survey is conducted in the eastern Bering Sea to determine the distribution and abundance of crab and groundfish resources. This report summarizes survey results for commercially important crabs. It is intended to aid fishermen and processors in locating productive grounds and judging overall availability of various species. Survey derived data is also used as part of the basis for management decisions. Red king crab (Paralithodes camtschatica), blue king crab (P. platypus), Korean hair crab (Erimacrus isenbeckii), and two species of tanner crabs (Chionoecetes bairdi and C. opilio) are of primary interest. Hybrid tanner crab are also discussed. Information on groundfish resources is available from the National Marine Fisheries Service's Montlake Laboratory (2725 Montlake Blvd. East, Seattle, Washington 98122).

### Survey Area and Methods

Areas covered by the 1981 and 1982 surveys are similar (Figure 1). This year's survey, however, included more of the area south of Nunivak Island to allow for a northerly shift in the distribution of red king crab, and also included some additional stations northwest of St. Matthew Island. Eleven stations at the extreme western portion of the 1981 area were missed due to loss of fishing gear. The survey was conducted by the NOAA R/V Chapman and the F/V Pat San Marie from May 29 to August 1. The two vessels successfully completed 349 tows and surveyed an area of 133,200 square nautical miles.

Both vessels fished an eastern otter trawl with an 83 foot headrope and a 112 foot footrope. Measured wing spread on this trawl ranged from 47 - 58 feet as compared to an average of 45 feet for the 400 eastern used in previous years. Each tow was of one-half hour duration and most tows were 1.4 to 1.8 nautical miles long. Catches were brought aboard, sorted by species and sex, and then a sample of crabs was measured (to the nearest millimeter) to provide a size frequency distribution. In most cases all male crab were measured. A tracing of the bottom profile was made with a recording echo sounder during each tow. A tracing of the surface to bottom temperature profile was taken with an expendable bathythermograph (XBT) at as many stations as possible.

Population estimates (Tables 1-3) were derived from the trawl data using the "area-swept" technique. First, the density of crabs at each trawl station was computed. Population estimates were then calculated by extrapolating the average density of a given size group over the area of the species' (or stock's) range.

### Interpreting Tables and Charts

Because of differences in the length of tow from vessel to vessel and station to station, catches presented in accompanying charts and tables are standardized as the number of crab caught per mile towed (rounded to whole numbers on charts). Charts are based on 20 by 20 nautical mile squares. In cases where more than one tow was made in a square, the average number of crab caught per mile towed is presented. It is advisable to cross-reference charts and Tables

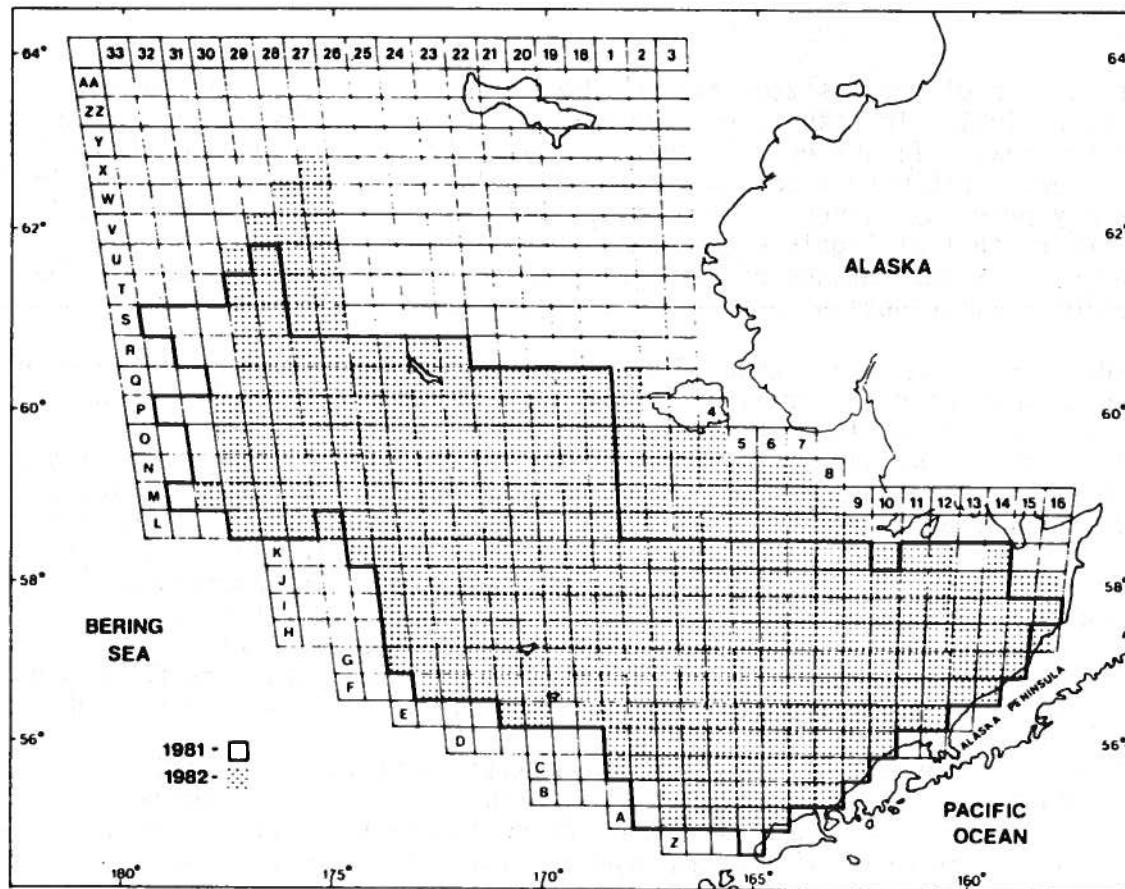


Figure 1. -- NMFS eastern Bering Sea crab survey areas in 1981 and 1982.

(4-8) to obtain more exact information. Charts and tables showing the percentage of legal crab should be carefully cross-referenced since high percentages of legal crab are often found in areas of low abundance.

### Distribution and Abundance of King Crabs

#### Red King Crab

The distribution of legal-sized crab in 1982 (Table 4, Chart 1) was very similar to that of 1981. In both years, the highest concentrations of legal crab were found north (rows H-I) and east (columns 9-11) of their usual grounds (rows E-G, columns 6-9). Fewer crab were found in waters off False Pass and Amak Island than were found in any previous survey. The distribution of pre-recruit crab (Chart 2) very nearly mirrors that of legals except that they are more abundant. Chart 3 shows that the highest percentages of legal crab were taken along the seaward edge of the population's distribution in areas where legal crab were sparsely distributed.

The abundance of legal-sized crab (Table 1) was at an all time high in 1978 and 1979 and has declined rapidly since 1980. A record catch of 130.0 million pounds from Bristol Bay in 1980 was followed by a catch of 33.6 million pounds in 1981. The 1982 estimate of 4.4 million legal crab (including 0.2 million in the Pribilofs) is about 40% of what was estimated in 1981. While a decline of 1-2 million legal crab was expected, survey results indicate that a decline of about 6 million crab occurred. The population of legal crab is the lowest recorded in the history of the survey and the 1982 catch will probably be similarly low. The abundance of pre-recruit crab has declined each year from 1978 onward but did not decline appreciably over the past year. Crab in the pre-recruit size class will be entering the fishery over the next one to two years. More detailed size-frequency data indicate that most of the pre-recruits will not enter the fishery until 1984.

The abundance of legal-sized crab per square mile is plotted by 0.5°C temperature increments for the years 1979-1982 in Figure 2. Although there are peaks in catch rates associated with some narrow temperature range in each year, there is no narrow range of temperatures consistently associated with high catch rates. This year, highest average concentrations were observed at the extremes of temperatures where red king crab were encountered.

Figure 3 shows the relationship between catch rates in the fishery and estimates of abundance derived from annual trawl surveys. In general, the curved line tends to fit the data better than the straight one. Catch rates in 1981, however, were lower than expected. Due to the sparse distribution and low abundance of legal-sized crab in 1982, we expect the catch rate to be five or less crab per pot.

#### Blue King Crab

This species is found in significant concentrations in the vicinity of the Pribilof Islands and St. Matthew Island (Charts 4, 5, and 6, Table 5). In the Pribilof area, distribution of legal-sized crab (Chart 4) was very similar to that of last year. Most crab were found north and east of the islands. The distribution of pre-recruits (Chart 5) was also about the same as in 1981, and in both years was similar to that of legal-sized males. In the St. Matthew Island

Table 1. -- Population estimates for eastern Bering Sea king crabs from NMFS surveys (millions of crabs).

Bristol Bay and Pribilof Red King Crabs

Year	Pre-recruits <u>1/</u>	Legals <u>1/</u>
1969	19.5	9.8
1970 <u>2/</u>	8.4	5.3
1972	8.3	5.4
1973	25.9	10.9
1974	31.2	20.8
1975	29.6	21.2
1976	49.3	32.7
1977	63.9	37.6
1978	52.5	46.6
1979	38.8	45.5
1980	23.9	36.1
1981	18.9	10.8
1982 <u>3/</u>	17.1	4.4

Table 1. -- (CONTINUED)

## Pribilof Blue King Crabs

Year	Pre-recruits 1/	Legals 1/
1974	3.1	1.9
1975	8.0	7.5
1976	2.1	3.9
1977	2.2	9.4
1978	5.6	4.3
1979	1.5	4.6
1980	1.4	4.2
1981	1.4	4.1
1982 3/	0.7	2.2

## Saint Matthew Blue King Crabs

Year	Pre-recruits 4/	Legals 4/
1978	3.3	1.9
1979	3.0	2.1
1980	3.0	2.5
1981	2.2	3.1
1982 3/	3.3	6.8

1/ The size groups 5.2" - 6.4" and  $\geq$  6.5 have been used for pre-recruits and legals.

2/ Limited survey in 1971, not used for population estimates.

3/ Preliminary estimate subject to change upon further analysis.

4/ The size groups 4.3" - 5.4" and  $\geq$  5.5" have been used for pre-recruits and legals respectively.

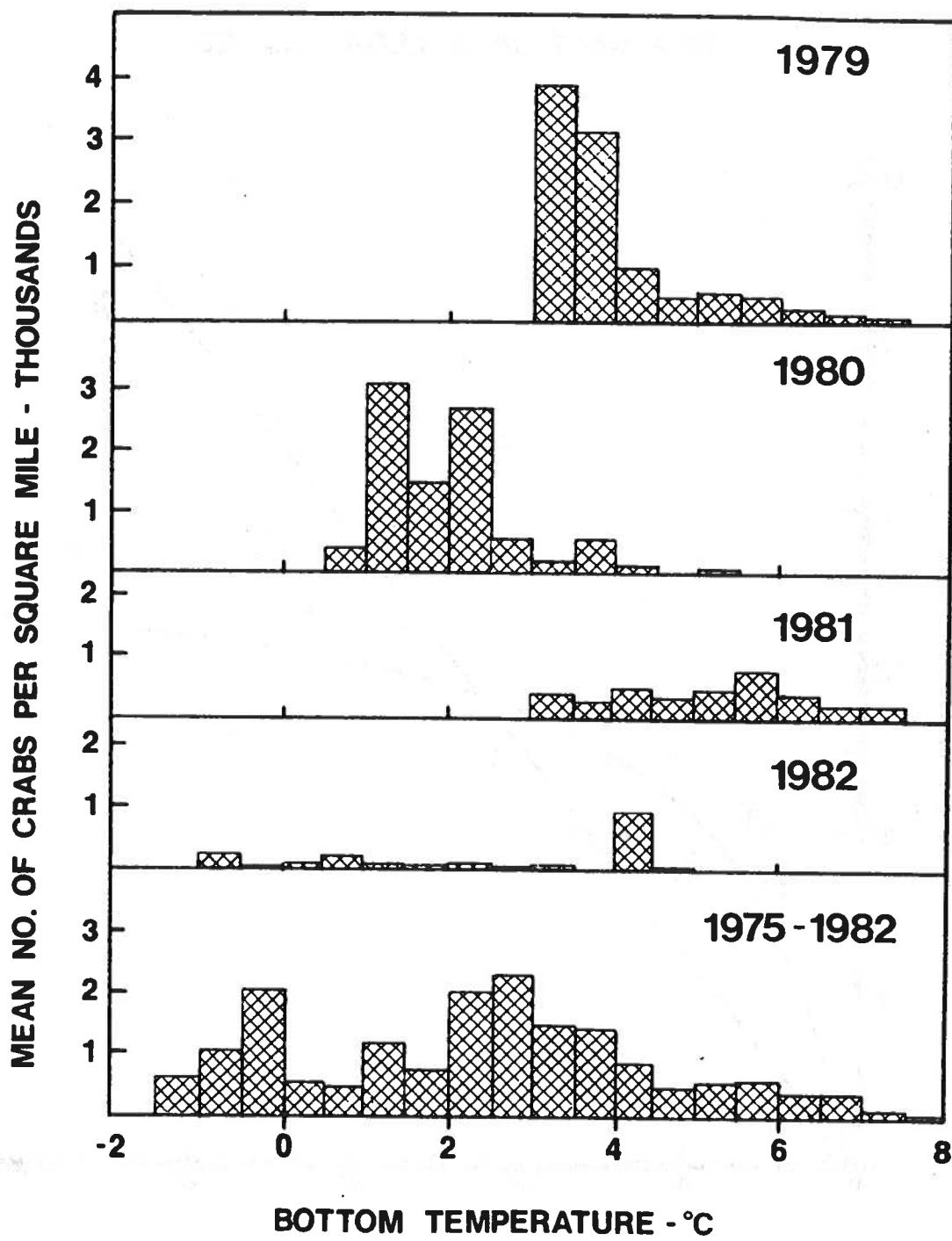


Figure 2. -- Average number of legal-sized male red king crab (*Paralithodes camtschatica*) per square mile found at various bottom temperatures in the 1975-1982 NMFS Bering Sea surveys. Data are summarized in 0.5 degree intervals.

### RED KING CRAB LEGAL MALES

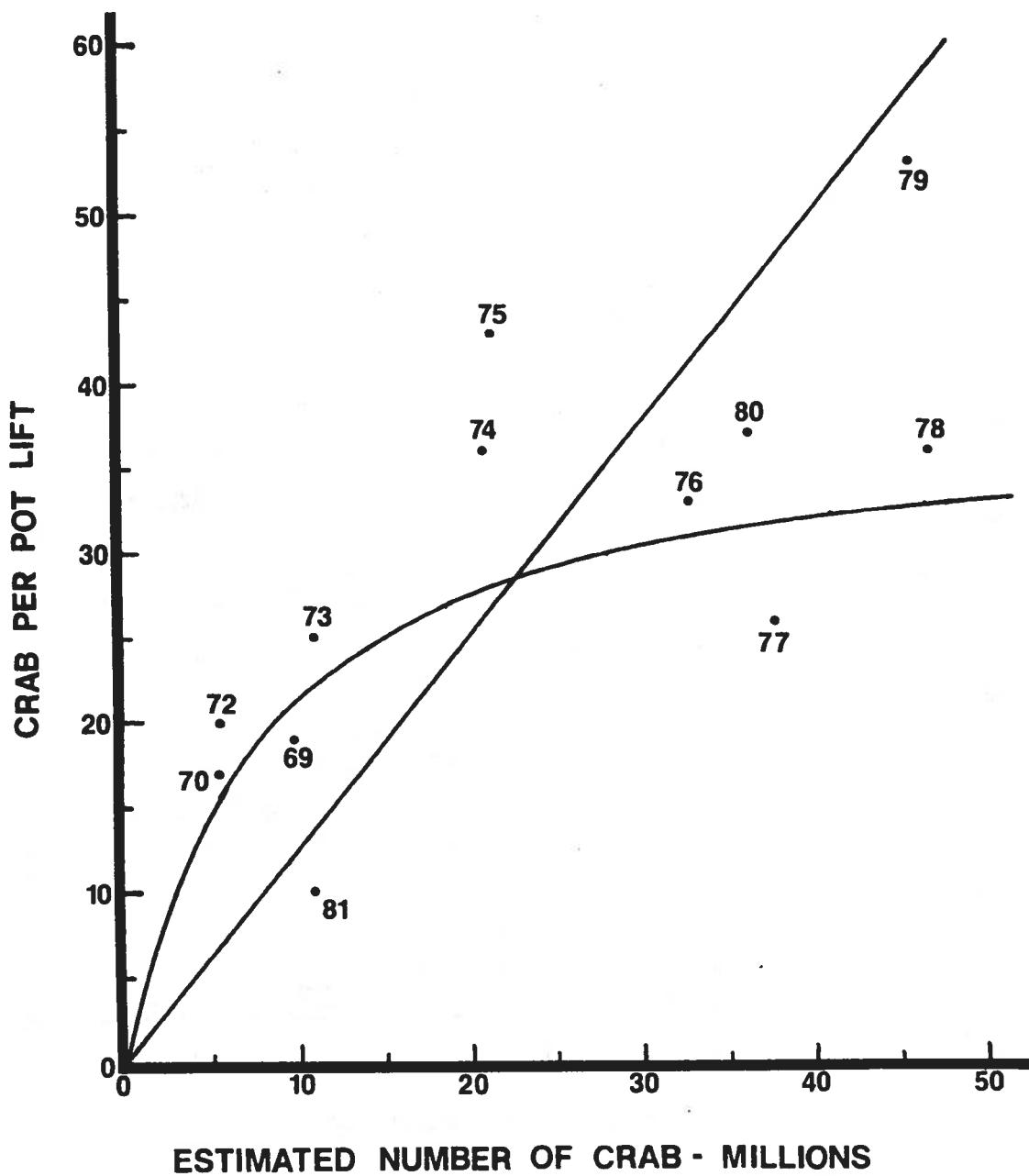


Figure 3. -- Relationship between the season average number of Red King Crab (Paralithodes camtschatica) taken per pot in the U.S. Fishery and estimates of stock size from NMFS trawl surveys in the preceding summer.

area, legal as well as pre-recruit crab were found further south and west of the island than they were last year. In both areas, the percentage of legal crab at each station (Chart 6) should be interpreted cautiously for reasons described above.

The abundance of legal-sized crab (Table 1) in the Pribilof District was stable from 1978 to 1981 but has declined about 50% in 1982. The abundance of pre-recruit crab has also declined by about 50%. The commercial fishery produced 9 million pounds in 1981 and about 6 million pounds (preliminary) in 1982. While there is not a clear relationship between the abundance of pre-recruits and later abundance of legals, declines in the abundance of both size groups probably indicate low abundance of legal crab in 1983.

Estimated abundance of legal-sized crab in the St. Matthew Island district more than doubled over the past year. The commercial catch increased from 4.6 million pounds in 1981 to approximately 9.0 million pounds in 1982. The abundance of pre-recruit crab also increased slightly. Since the 1982 catch was about 2.0 million crab, there should be a substantial carry-over of legal crab as well as above average recruitment. By consequence, the abundance of legal-sized crab is expected to remain high into 1983.

It is interesting to note that every annual survey has shown a well defined geographic separation of the Pribilof and St. Matthew Island populations. There is probably little, if any, migration between the two areas.

#### Distribution and Abundance of Tanner Crabs

##### C. bairdi

The distribution of legal-sized C. bairdi is similar to that of last year (Chart 7, Table 6). Areas surrounding the Pribilof Islands, and north of the Alaska Peninsula from False Pass to Port Heiden, had relatively high concentrations of crab. A small area of high abundance was also found northwest of Unimak Island. The distribution of pre-recruit crab more or less mirrors that of legals except that high concentrations of pre-recruits are also found along the shelf edge (Chart 8). Percentages of legal crab were highest in the area north and northwest of Port Heiden (Chart 9).

The abundance of legal-sized crab is down by about 30% relative to last year (Table 2). Landings fell from 30 million pounds in 1981 to 11 million pounds this year. The abundance of pre-recruits, however, is almost twice that of last year. Populations of legal-sized C. bairdi have been declining since 1975. While fishing will likely remain poor in 1983, it appears that the abundance of legal-sized crab will be increasing over the next several years.

The relationship between the average number of legal bairdi tanner crab per square mile and bottom temperature during the past four years is shown in Figure 4. The lower temperatures at which C. bairdi were found this year simply reflect lower temperatures in the habitat area. As with other eastern Bering Sea crab species, there does not appear to be a narrow temperature range in which the highest catch rates consistently occur.

Figure 5 shows the relationship between catch rates in the fishery and estimates of abundance from the survey in the preceding summer. Both lines fit the data fairly well and 1983 catch rates will probably be less than 10 crab per pot.

Table 2. -- Population estimate for eastern Bering Sea tanner crabs from NMFS surveys (millions of crabs).

Bristol Bay and Pribilof C. bairdi

Year	Pre-recruits 1/	Legals 1/
1973	140.5	66.9
1974	255.0	130.5
1975	207.0	209.6
1976	136.6	109.5
1977	116.3	92.1
1978	81.2	45.6
1979	47.7	31.5
1980	65.0	31.0
1981	24.0	14.0
1982 2/	46.9	10.1

Bristol Bay and Pribilof C. opilio

Year	Pre-recruits 3/	Large 3/
1973	38.7	84.7
1974	169.2	246.7
1975	247.4	274.8
1976	190.4	181.6
1977	196.6	137.3
1978	171.6	78.4
1979	146.3	106.3
1980	99.1	53.6
1981	62.7	15.7
1982 2/	63.8	10.8

Table 2. -- (CONTINUED)

## Bristol Bay and Pribilof Hybrid Tanner Crab

Year	Pre-recruits <u>3/</u>	Large <u>3/</u>
1975	13.2	33.8
1976	4.0	16.5
1977	9.6	15.4
1978	2.0	5.6
1979	3.0	5.1
1980	0.8	1.7
1981	0.5	0.8
1982 <u>2/</u>	0.6	0.5

Northern District C. opilio

Year	Pre-recruits <u>3/</u>	Large <u>3/</u>
1978	8.2	10.5
1979	20.8	6.6
1980	30.4	4.2
1981	17.1	6.5
1982 <u>2/</u>	70.4	10.9

1/ A legal size limit of 5.5 inches carapace width was imposed in 1976, prior to this greater than 5.0 inches was used in the "Legal" column. In parallel, pre-recruit was 3.3 - 5.0 inches prior to 1976 and 4.3 to 5.5 since.

2/ Preliminary estimate subject to change upon further analysis.

3/ Large is greater than 4.3 inches as this has been the size of interest to U.S. industry; pre-recruit is 3.7 to 4.3 inches.

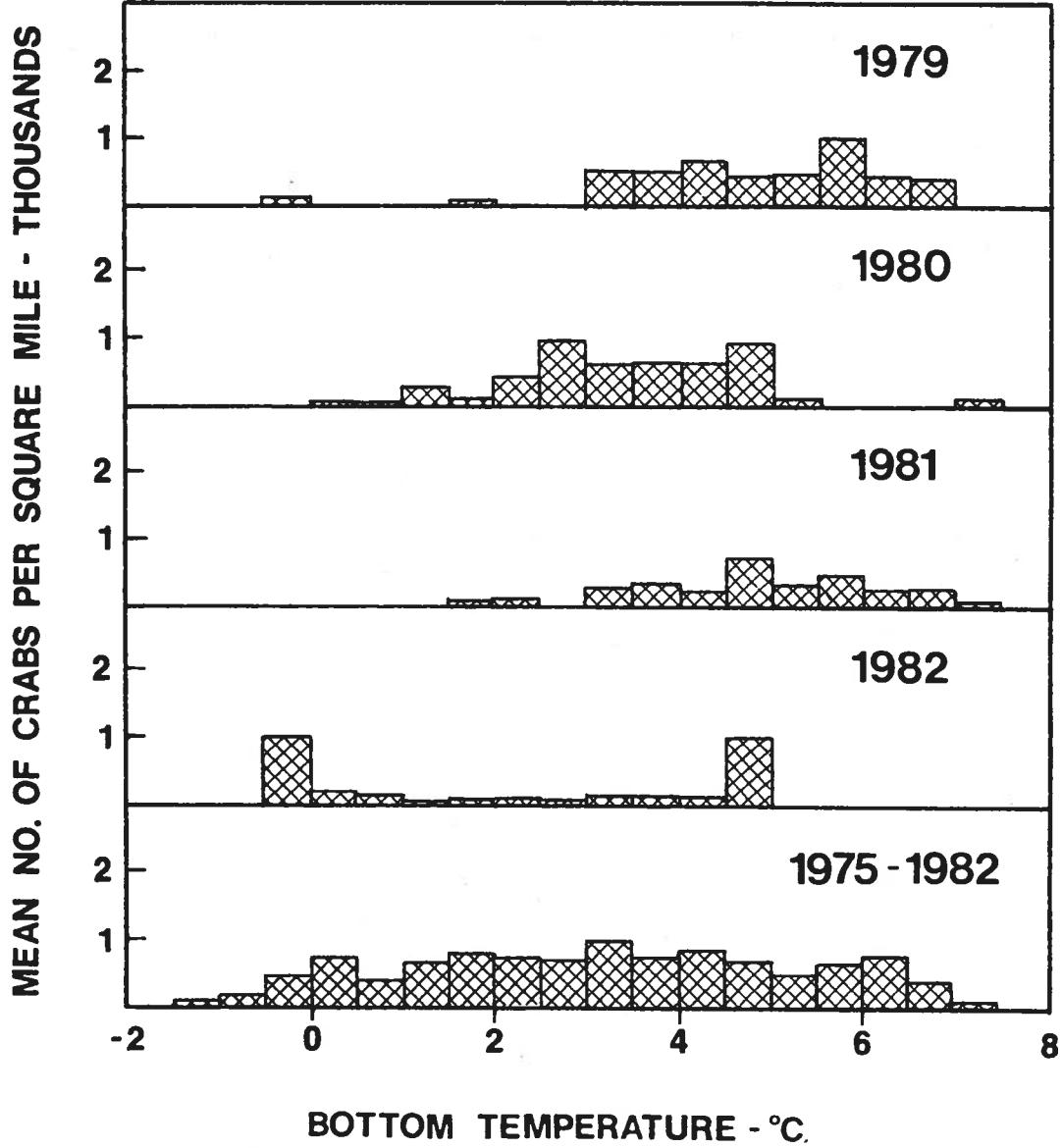


Figure 4. -- Average number of legal-sized male Tanner crab (*Chionoecetes bairdi*) per square mile found at various bottom temperatures in the 1975-1982 NMFS Bering Sea surveys. Data are summarized in 0.5 degree intervals.

## BAIRDI TANNER CRAB LEGAL MALES

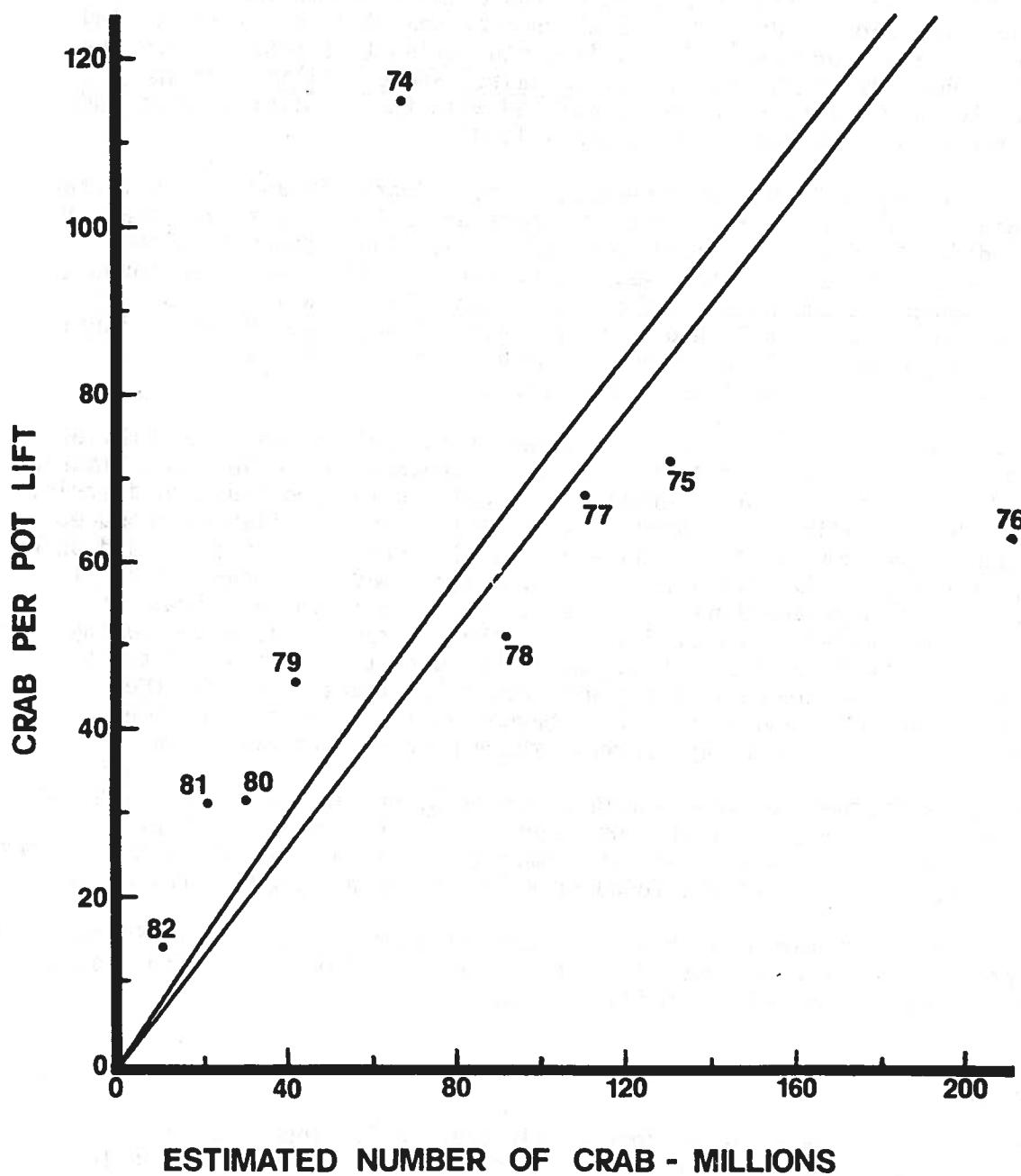


Figure 5. -- Relationship between the season average number of Tanner crab (*Chionoecetes bairdi*) taken per pot in the U.S. Fishery and estimates of stock size from NMFS trawl surveys in the preceding summer.

### Opilio and Hybrid Tanner Crab

Data for C. opilio and hybrid tanner crab are combined in this report because the number of hybrids encountered is small and most of the commercial catch of hybrids is landed as C. opilio. Until 1982 there were no size limits for either group, but almost all of the commercial catch of both groups is larger than 4.3 inches (110 mm). A size limit of 3.1 inches was established in June but the size of landed crab did not decrease. Crab greater than 4.3 inches are called "large" in Charts 10-12 and Table 7. It is worth noting that most hybrids are found in zones where the distributions of C. bairdi and C. opilio overlap. Highest concentrations of hybrids are associated with the Pribilof Islands and areas along the shelf edge northwest of the islands.

The distribution of large and pre-recruit crab (Charts 10 and 11) is markedly different than that of 1981. Most notably, there are relatively fewer crab in areas surrounding the Pribilof Islands and relatively higher concentrations in the area north of 58°. A large area of high concentrations was also found 100-120 miles south and southwest of Nunivak Island. Very few large crab were found in areas that have been fished over the past 3-4 seasons. Distributional changes in the abundance of large crab will necessitate a change in fishing areas, particularly with respect to fishing north of 58°.

While the abundance of large crab declined in the Bristol Bay and Pribilof districts, this decline was offset by increased abundance in the Northern District (Table 2). The abundance of pre-recruits was stable in the two southern districts but increased dramatically in the Northern District. The 1982 fishery produced 30 million pounds as compared to 50 million in 1981. While some fishing did occur (for the first time) in the Northern District, catches may have been higher if more effort had been applied there. An overall increase in the abundance of pre-recruits probably spells better fishing in the future. It is worth noting that the new legal size limit is 3.1 inches, while the current size at entry to the fishery is 4.3 inches. Future landings will hence be affected both by the abundance of "large" crab and by possible changes in the size at recruitment. Landing smaller crab would greatly increase the number of crab available.

The relationship between the average catch of C. opilio per square mile and bottom temperatures during the last four years (Figure 6) shows only that they can tolerate a fairly wide range of summer temperatures from about 0.0 - 7.0°C, and, in general, that they are not found very frequently at temperatures above 6°C.

The relationship between catch per pot and abundance (Figure 7) indicates that the 1983 catch rate should be about 20-30 crab per pot. This catch rate would, however, depend upon substantial shifts in fishing areas.

### Korean Hair Crab

During the 1982 survey, large Korean hair crab (> 3.5 inches carapace length, no legal size) were found in major concentrations to the east of the Pribilof Islands and in low numbers in a band that extends along the southern edge of Bristol Bay (Chart 13 and Table 8). Isolated individuals were found as far north as the St. Matthew area. Pre-recruit crab (Chart 14) were found in the same areas as large crab but in much lower abundance. In locations where hair crab were caught, large males made up the majority of the catch and, in fact, there were only a few stations where they did not (Chart 15). Large males were 100% of the catch in many areas, however, in areas of high abundance they occurred with pre-recruits, small males, and females. We have never found very many female or small male crab during the survey and hence have little understanding of their distribution.

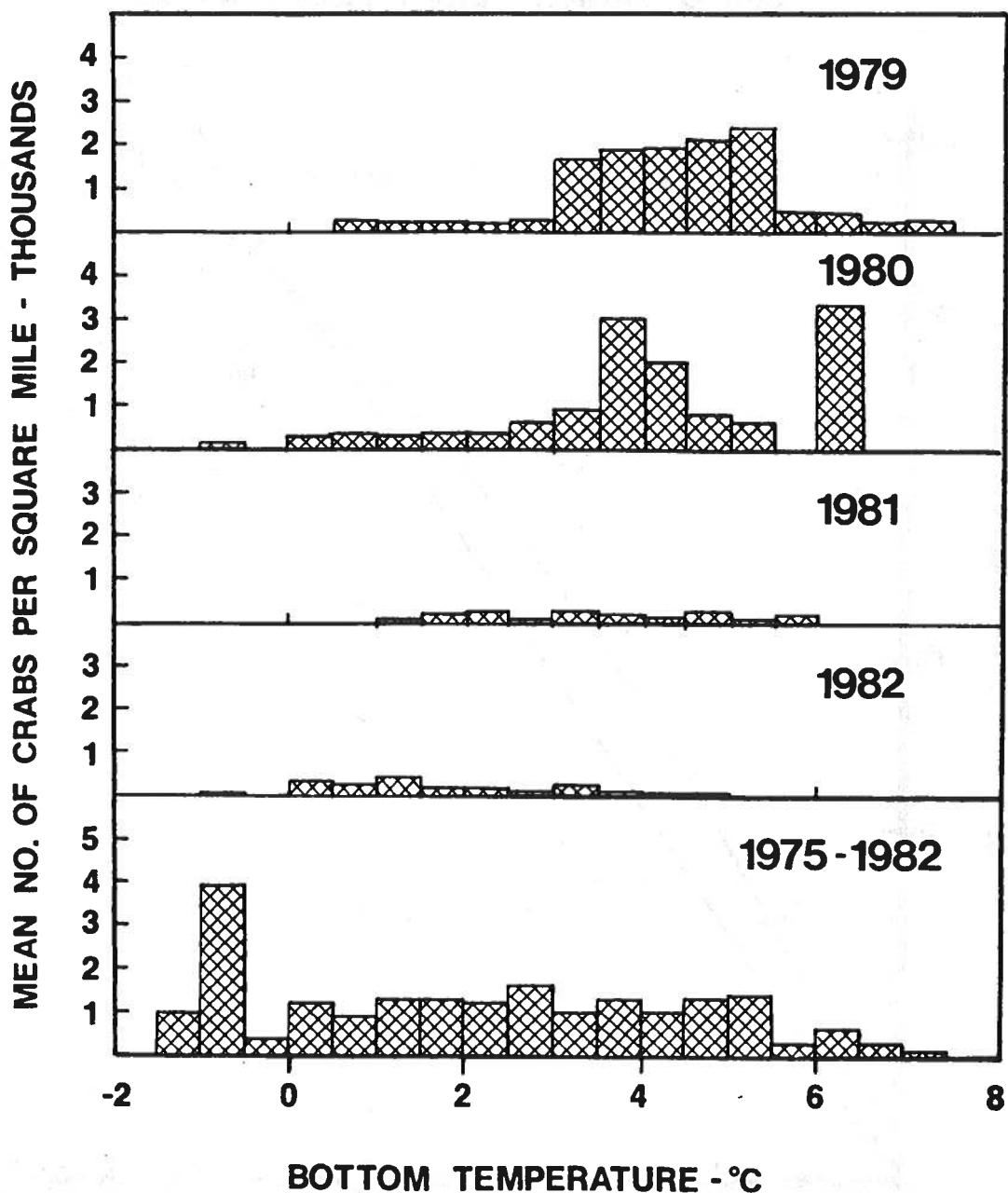


Figure 6. -- Average number of large-sized male Tanner crab (Chionoecetes opilio) per square mile found at various bottom temperatures in the 1975-1982 NMFS Bering Sea surveys. Data are summarized in 0.5 degree intervals.

### OPILIO TANNER CRAB LEGAL MALES

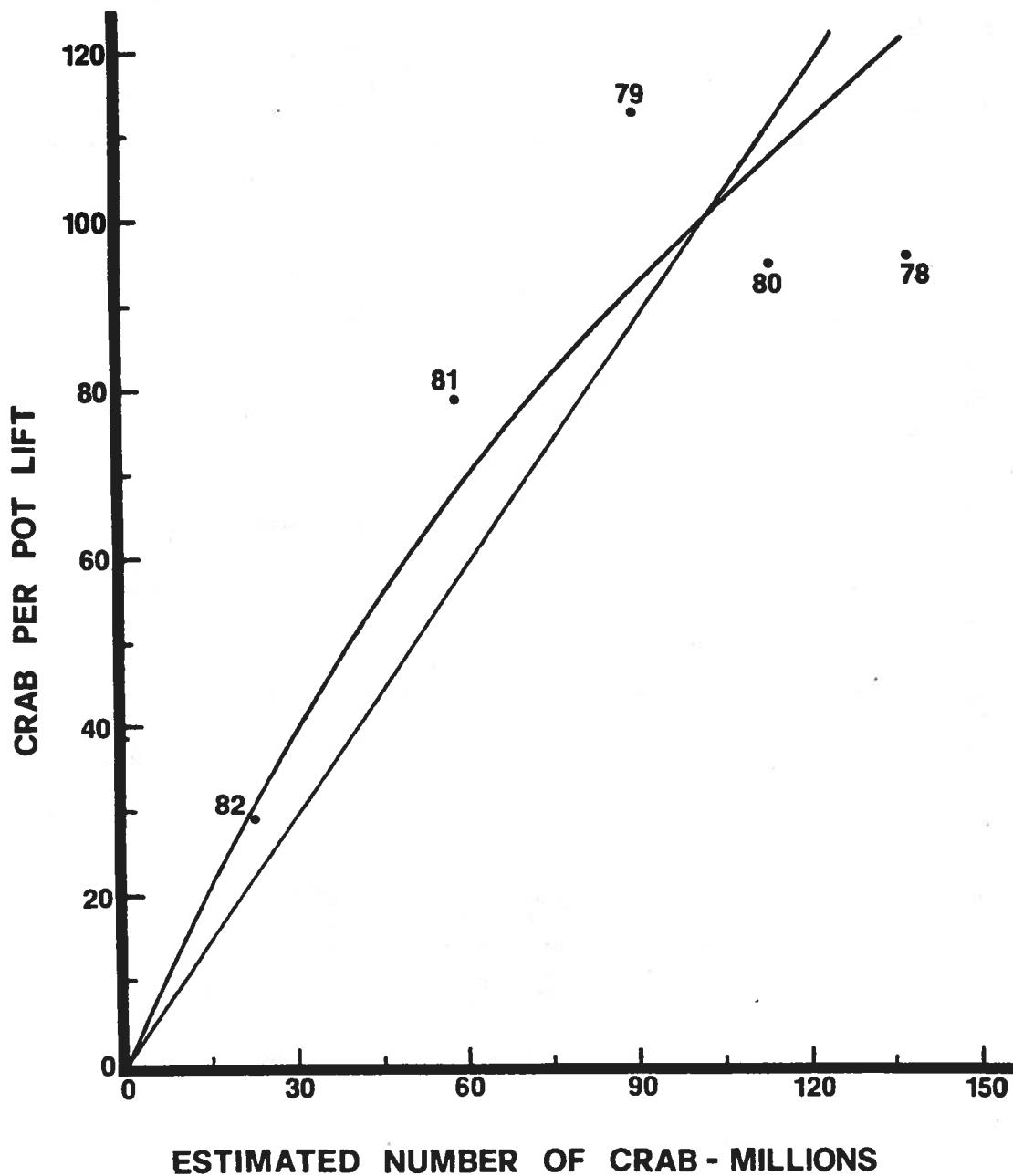


Figure 7. -- Relationship between the season average number of Tanner crab (*Chionoecetes opilio*) taken per pot in the U.S. Fishery and estimates of stock size from NMFS trawl surveys in the preceding summer.

In the past year, population estimates for the Korean hair crab decreased by 65% in the Pribilof District where more than 50% of the eastern Bering Sea population is located (Table 3). Populations in Bristol Bay also decreased while those in the Northern District have apparently increased slightly. Landings declined from 2.4 million pounds in 1981 to 0.4 million pounds in 1982. Reduced landings are, however, probably related more to market conditions than to abundance. Since less than 0.2 million hair crab were harvested in 1982, prospects for increased landings remain good.

Hair crab were found at temperatures between  $-1.0^{\circ}\text{C}$  and  $12.0^{\circ}\text{C}$  during the years 1979-1982, although most large males were caught in waters of  $3.0^{\circ}\text{C} - 7.0^{\circ}\text{C}$  (Figure 8).

#### Bottom Temperatures

Bottom temperatures (Chart 16) were considerably colder in 1982 than they were in 1981. The average bottom temperature decreased from  $3.6^{\circ}\text{C}$  in 1981 to  $2.3^{\circ}\text{C}$  in 1982. Decreases were most notable in Bristol Bay where temperatures were frequently  $4\text{-}6^{\circ}\text{C}$  lower, and in some cases, almost  $10^{\circ}\text{C}$  lower, than last year. There was little change in the Pribilofs and in shelf-edge areas where temperatures are moderated by incursion of deep ocean water.

#### Acknowledgements

Successful completion of the annual eastern Bering Sea crab-groundfish survey is crucially dependent on the skipper and crews of the participating vessels. We extend special thanks to Warren Taguchi (CHAPMAN), Bernie Hansen (PAT SAN MARIE), and their crews.

Table 3. -- Population estimates for eastern Bering Sea Korean hair crabs from NOAA/NMFS surveys (millions of crabs).

Pribilof District

Year	Pre-recruits <u>1/</u>	Large
1979	2.9	8.4
1980	3.6	10.4
1981	4.3	13.0
1982 <u>2/</u>	0.8	5.3

Bristol Bay

Year	Pre-recruits	Large
1979	1.2	6.3
1980	0.7	2.5
1981	0.4	2.7
1982 <u>2/</u>	0.3	1.9

Northern District

Year	Pre-recruits	Large
1979	0.4	1.4
1980	0.8	0.8
1981	<0.1	0.2
1982 <u>2/</u>	<0.1	0.5

1/ Large is greater than 3.5 inches in width which is approximately the size at entry into the U.S. fishery; pre-recruit is 3.0 to 3.4 inches.

2/ Preliminary estimate subject to change upon further analysis.

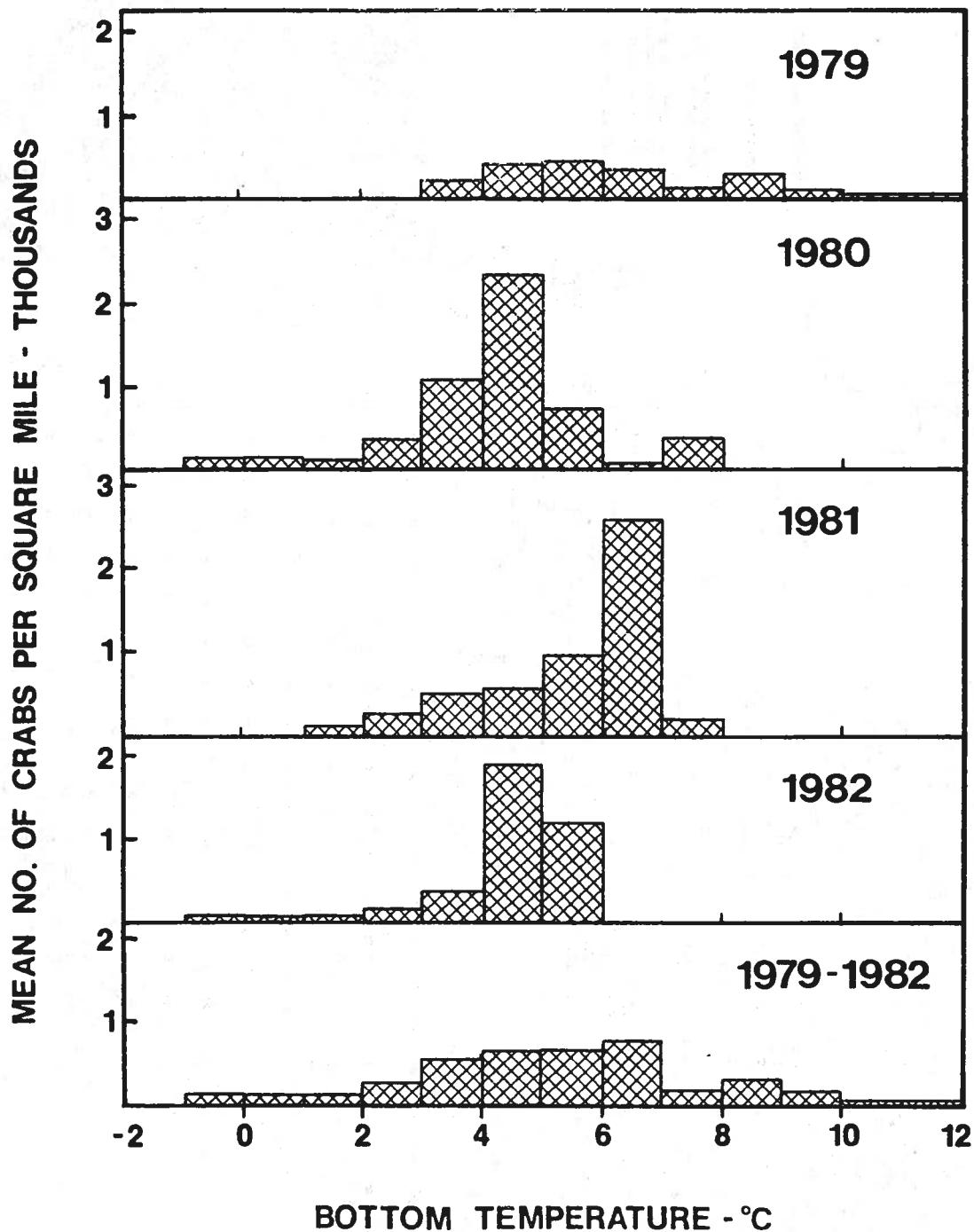
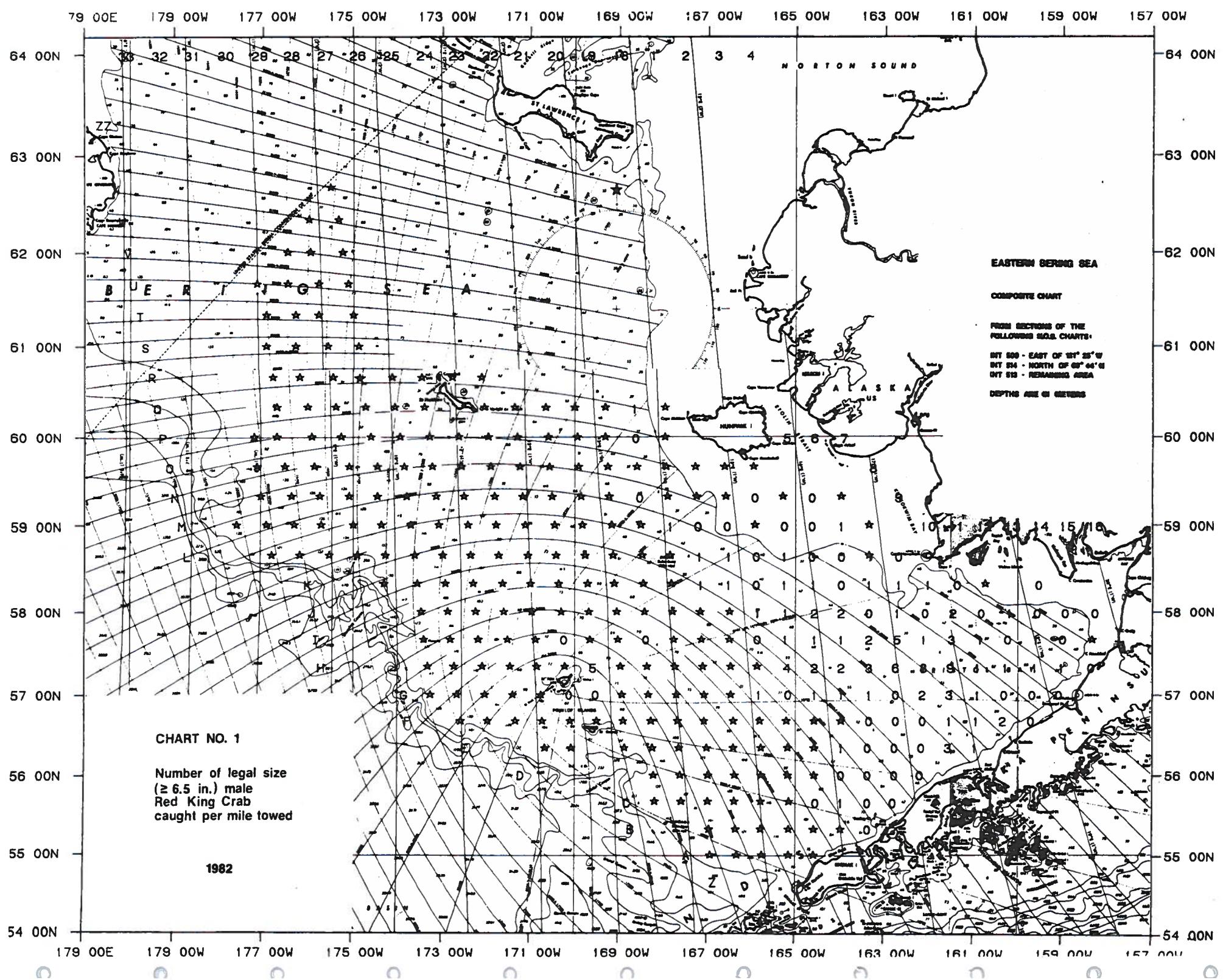
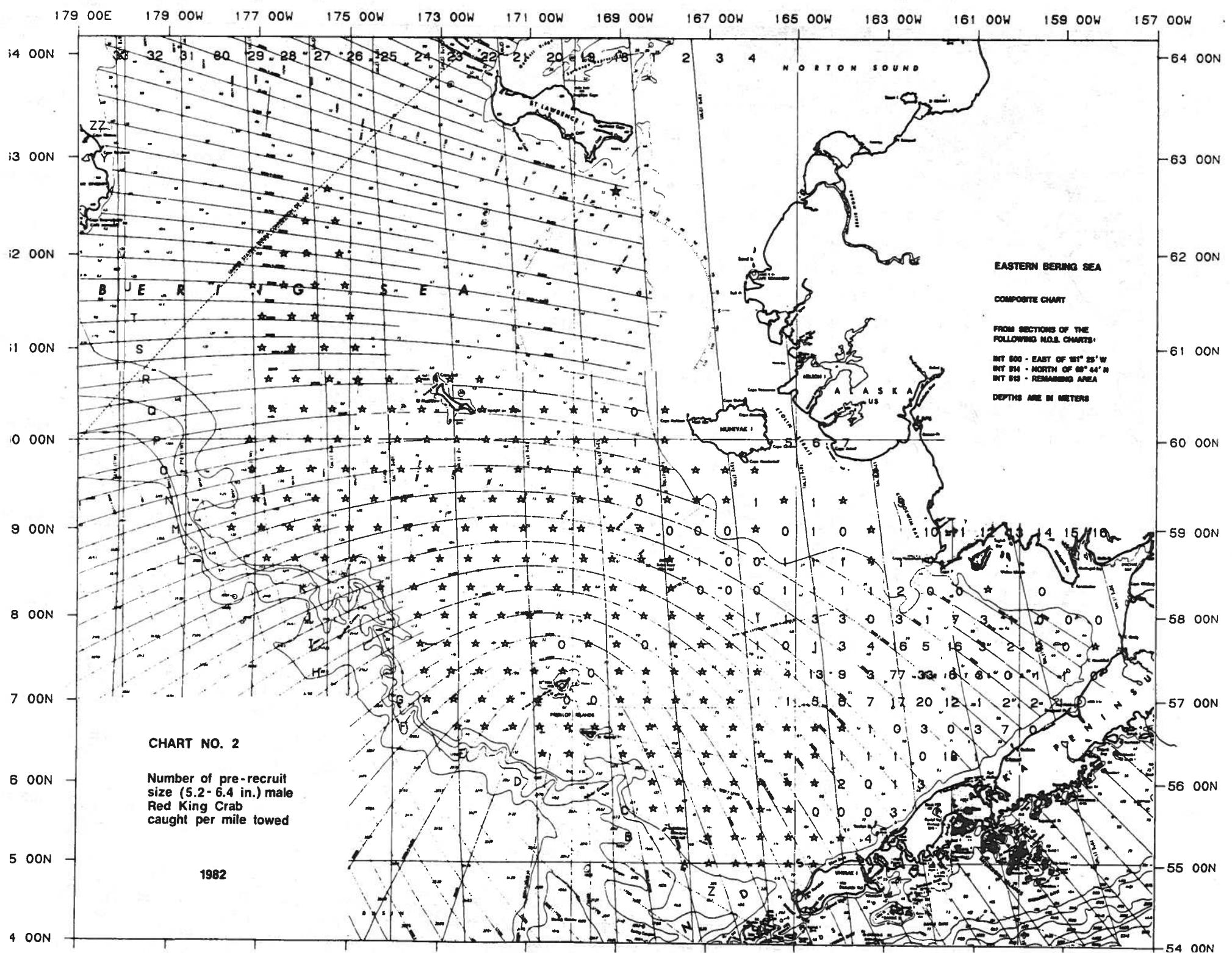
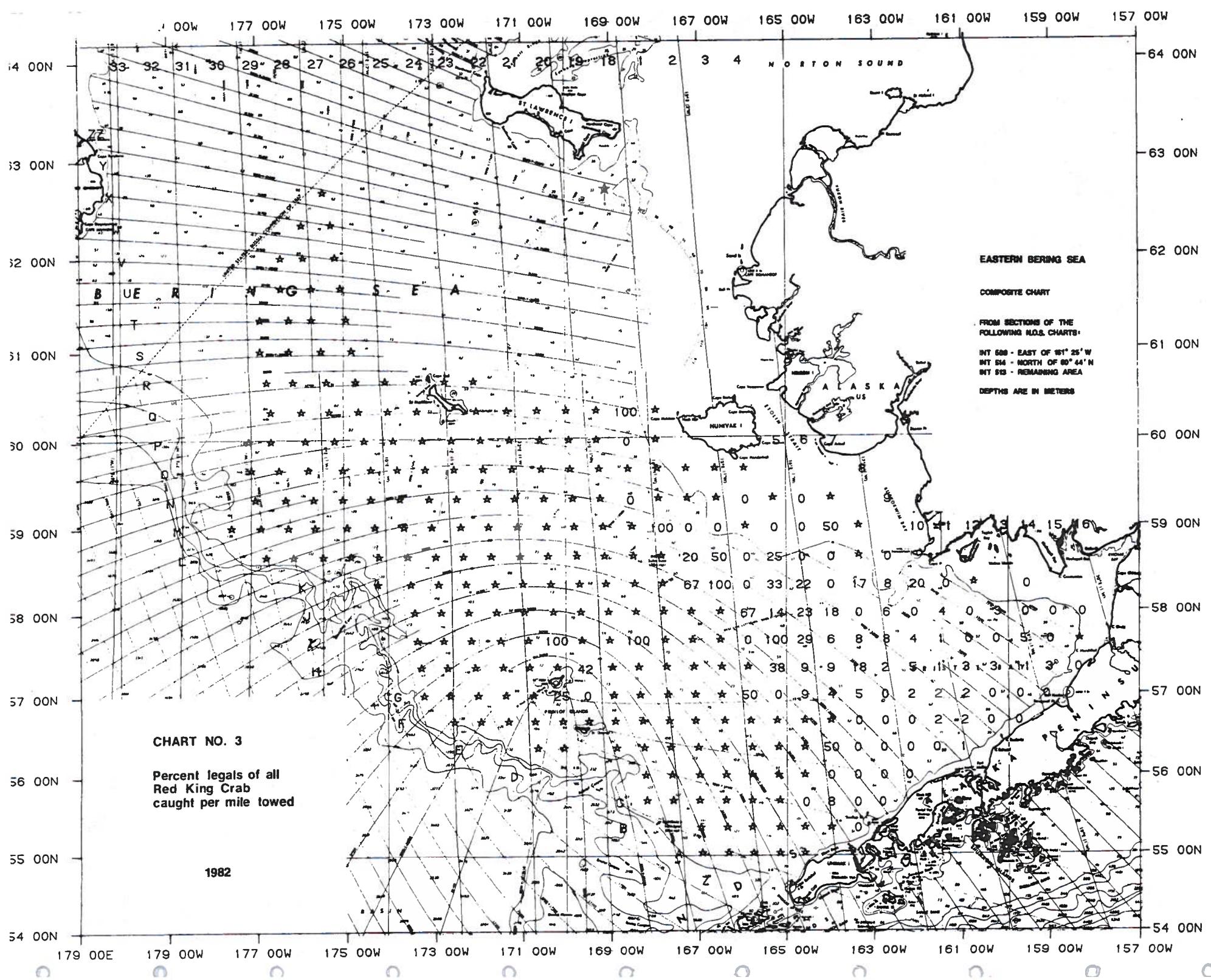


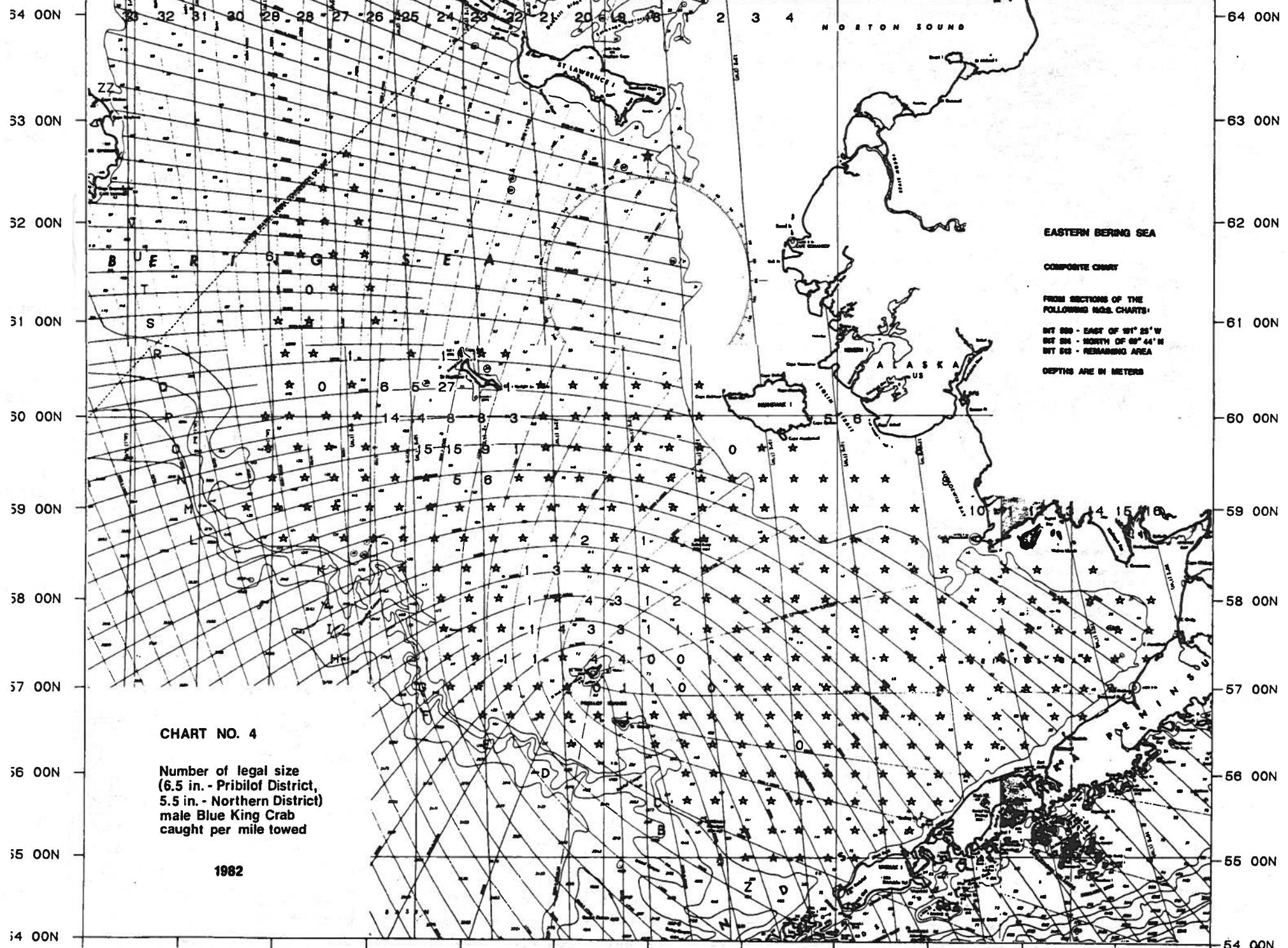
Figure 8. -- Average number of large-sized male Korean hair crab (*Erimacrus isenbeckii*) per square mile found at various bottom temperatures in the 1979-1982 NMFS Bering Sea surveys. Data are summarized in 1.0 degree intervals.

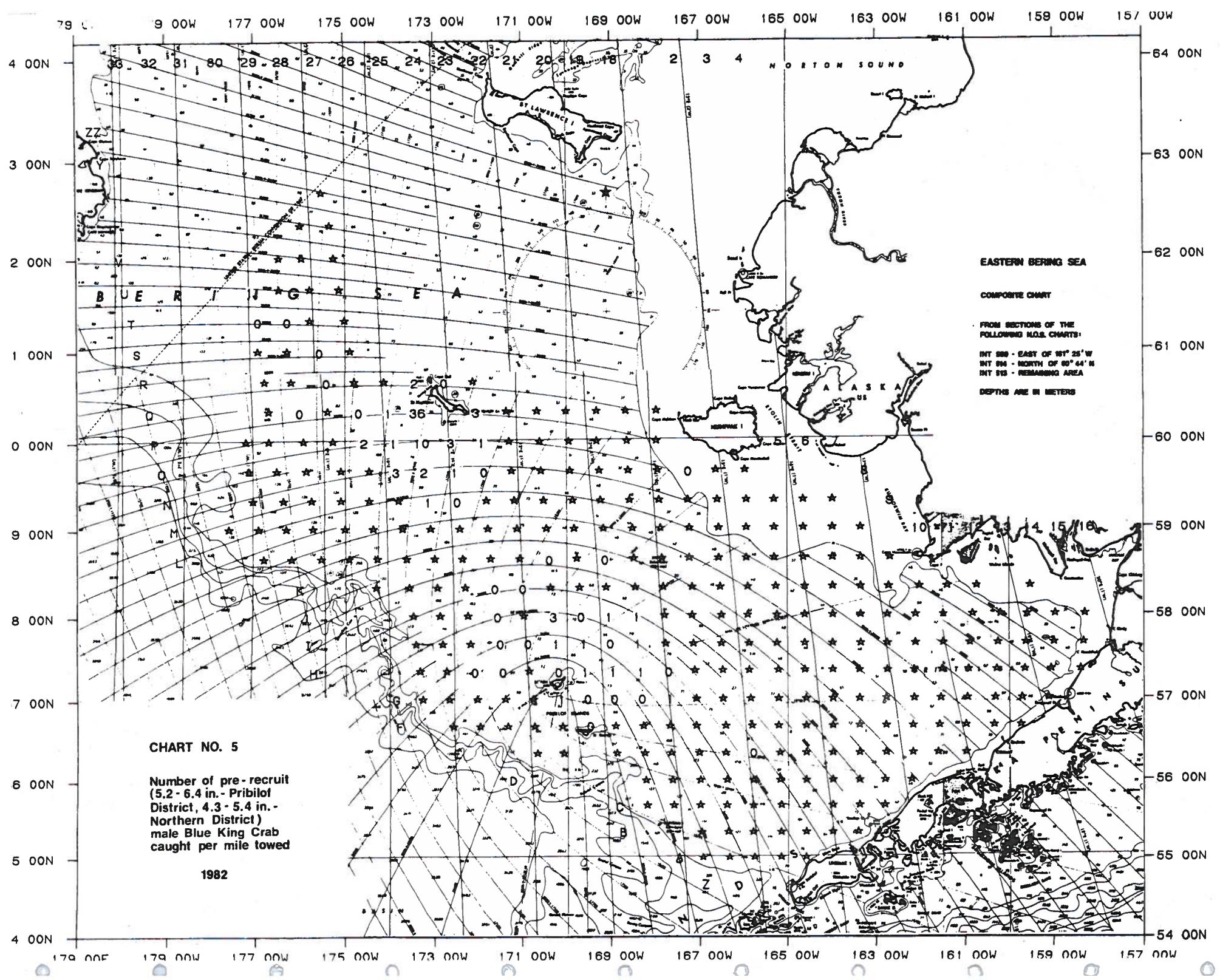




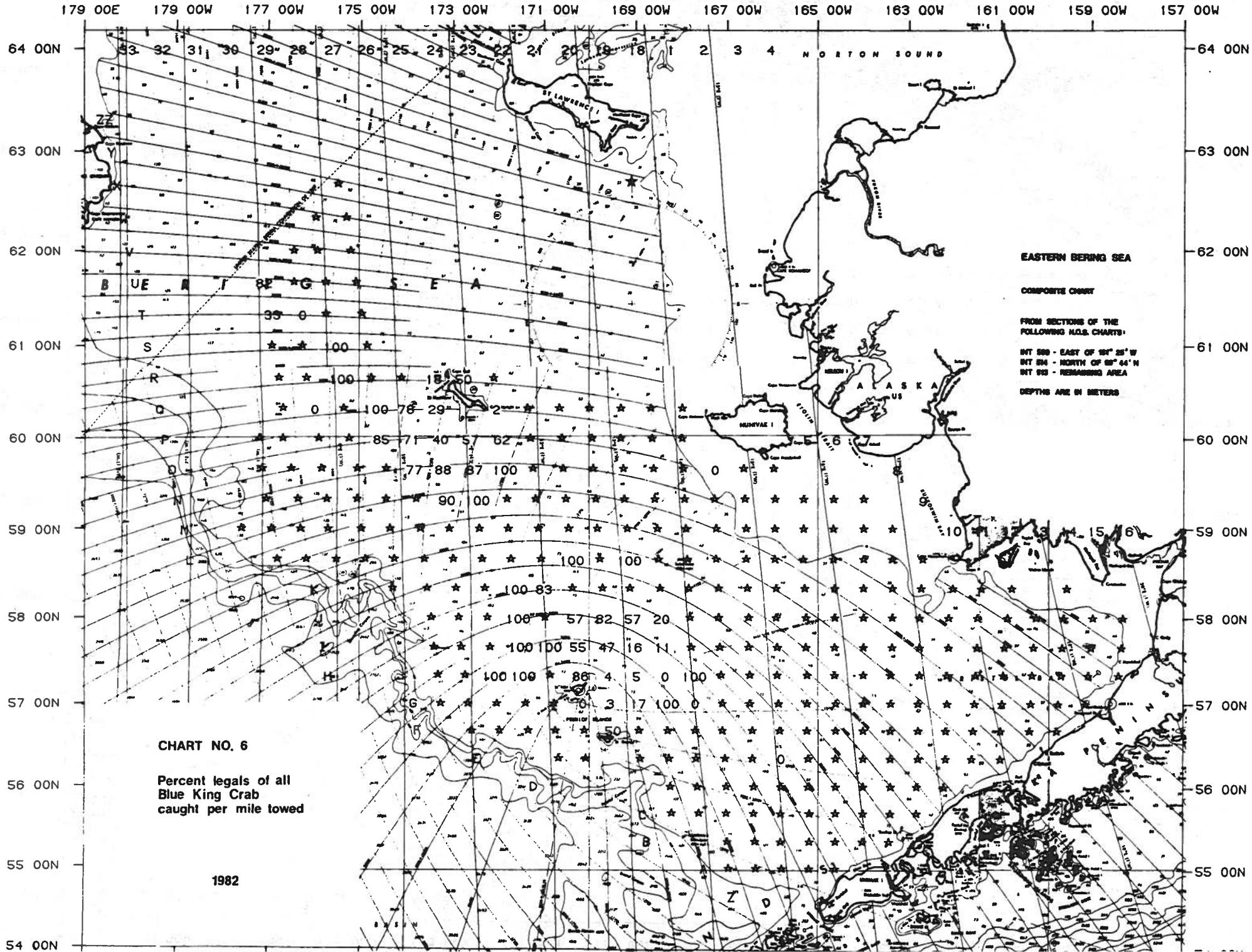


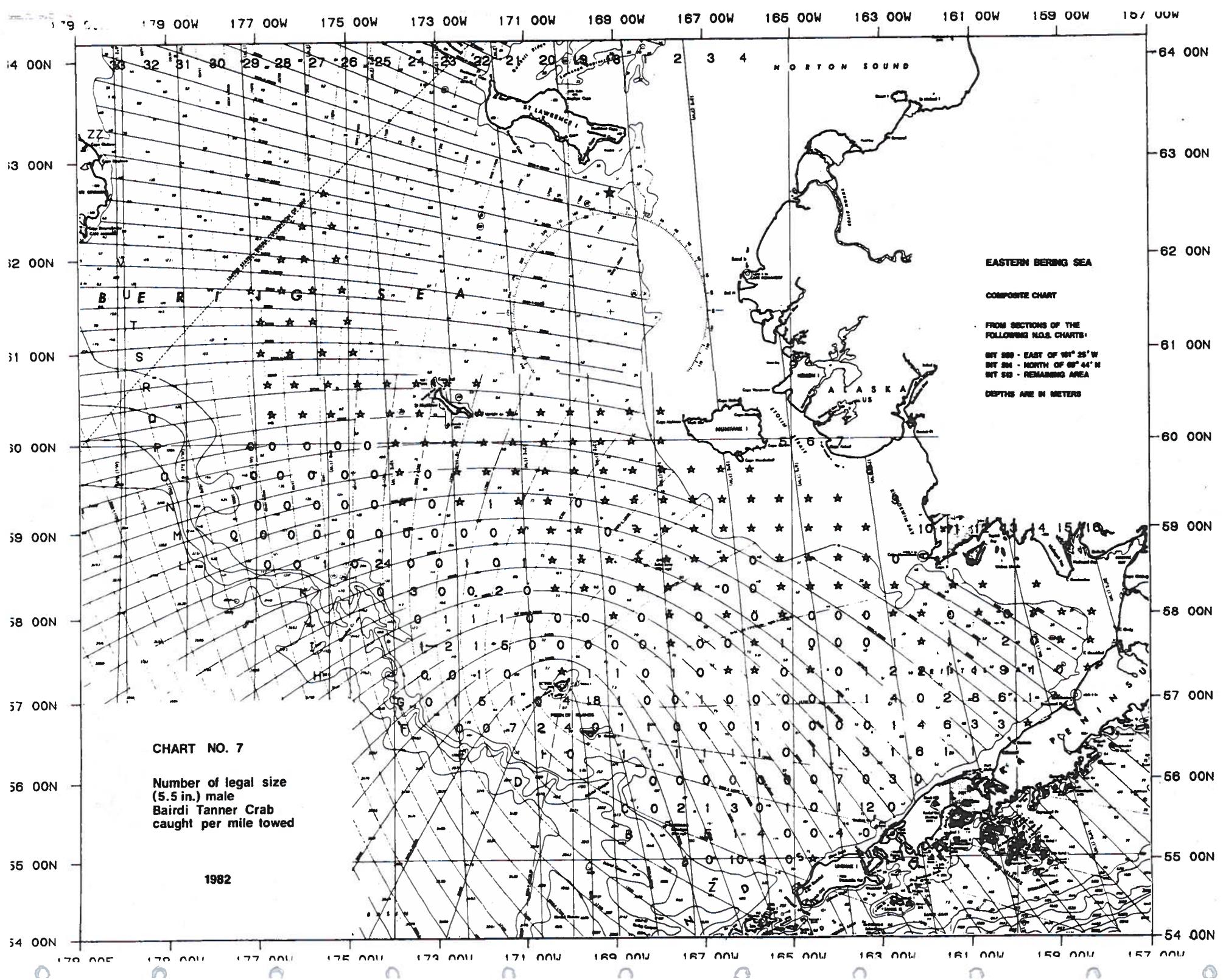
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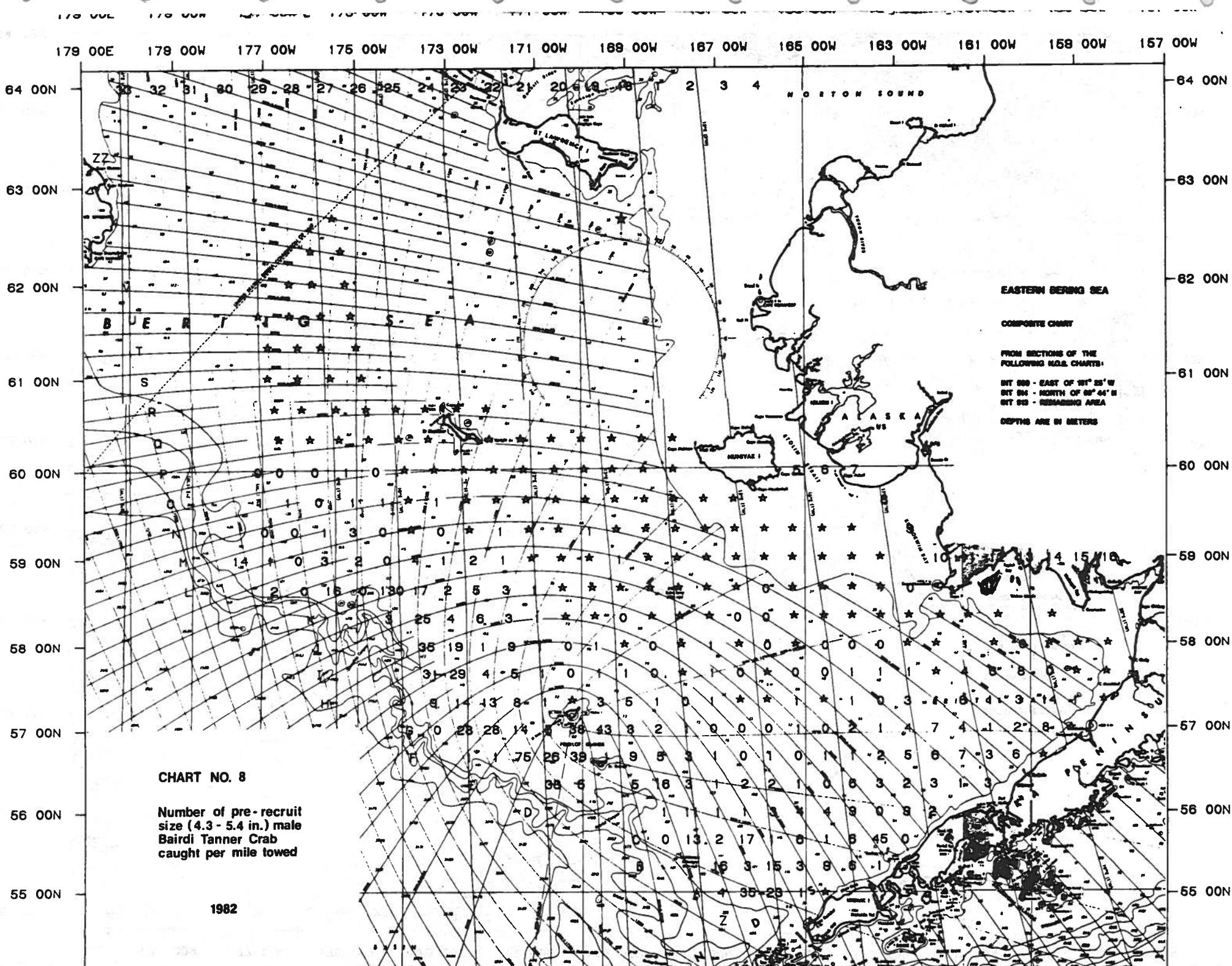


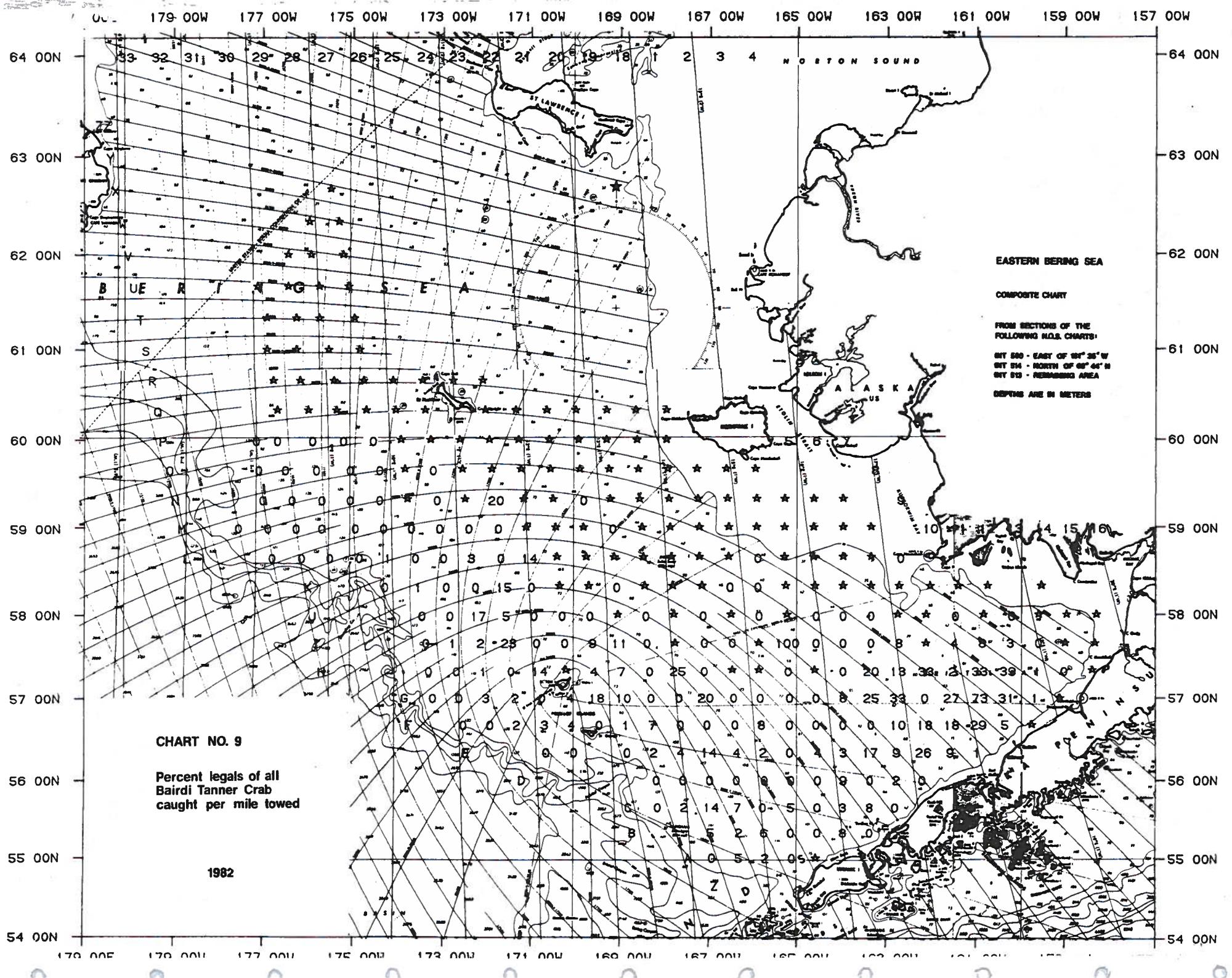


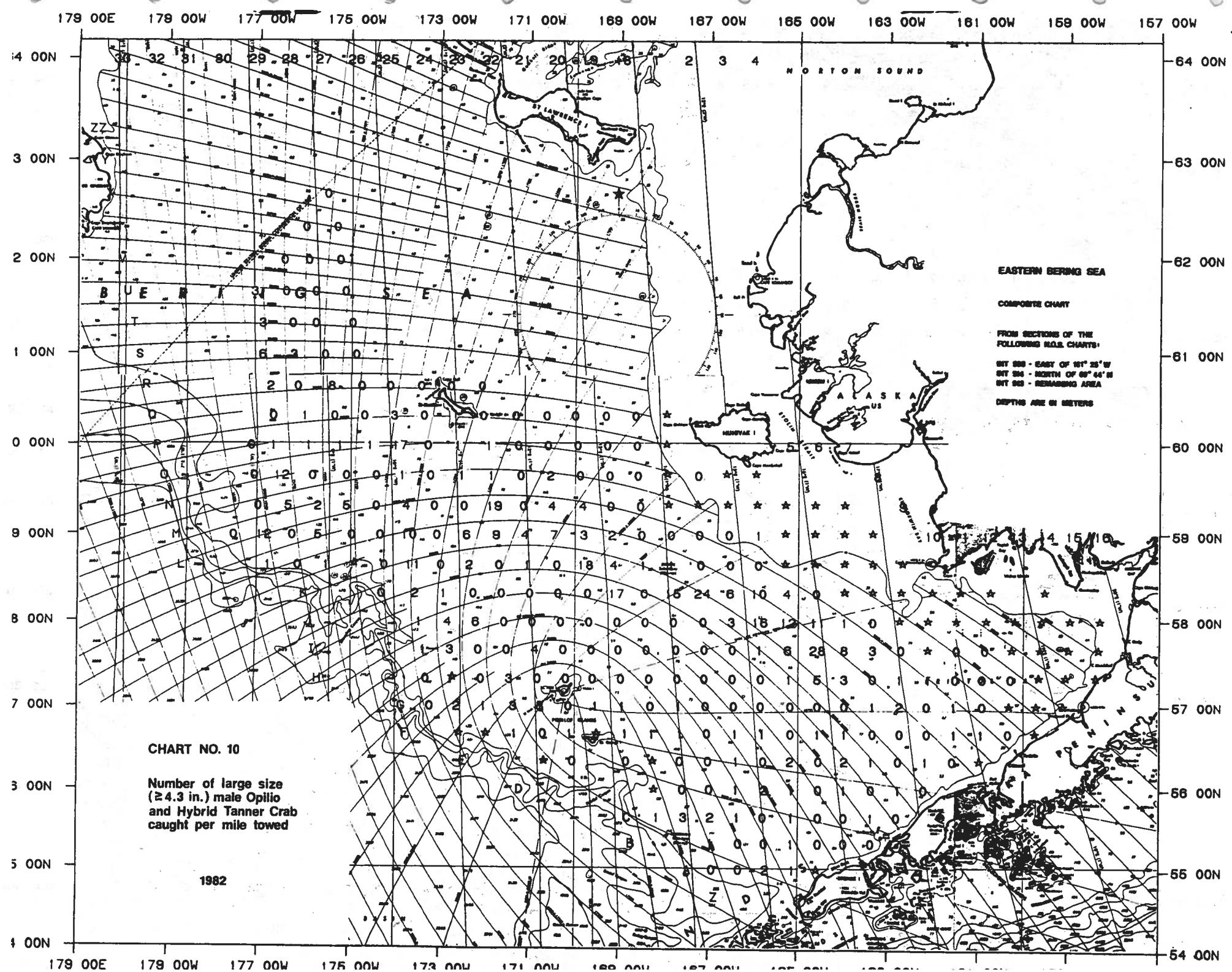
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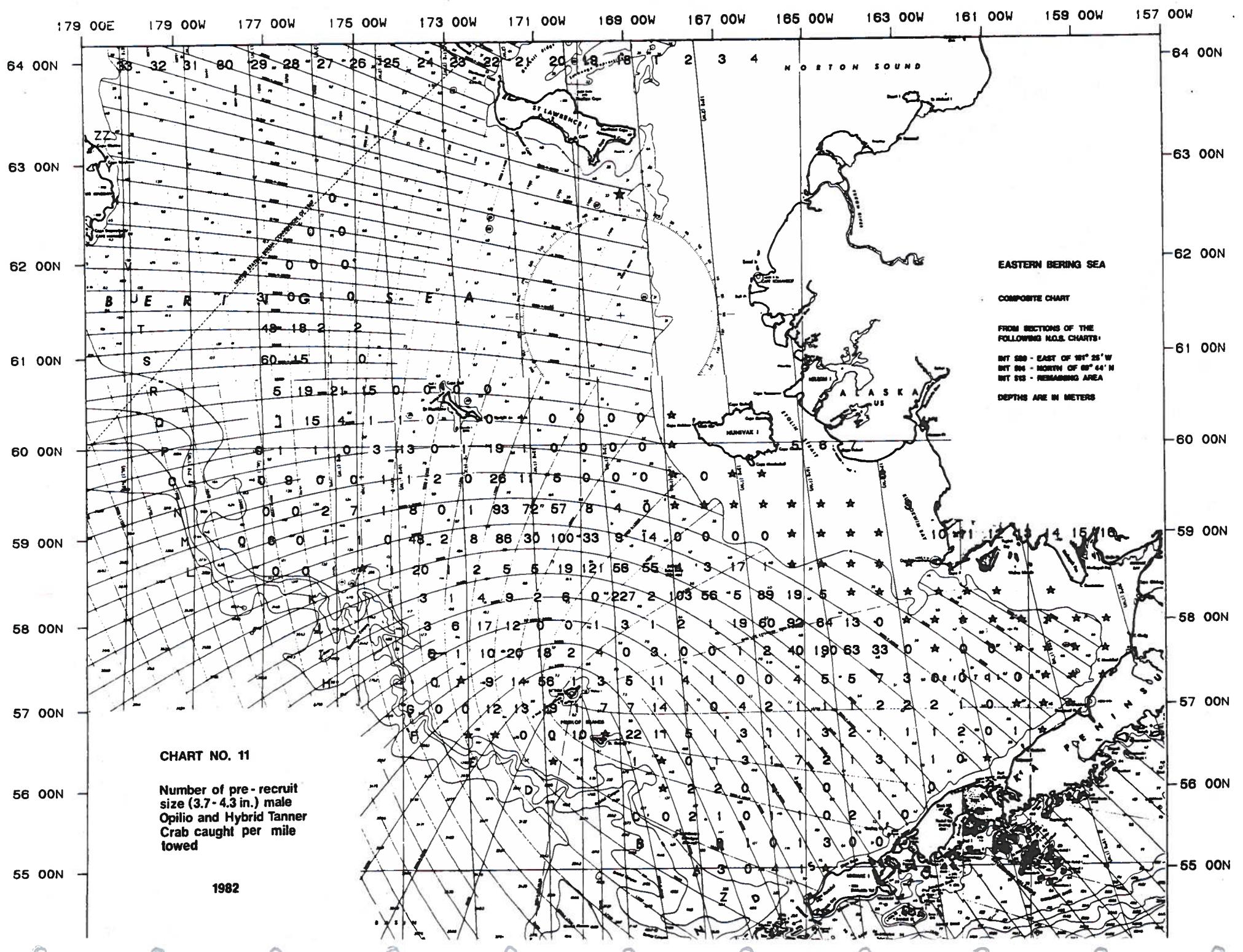


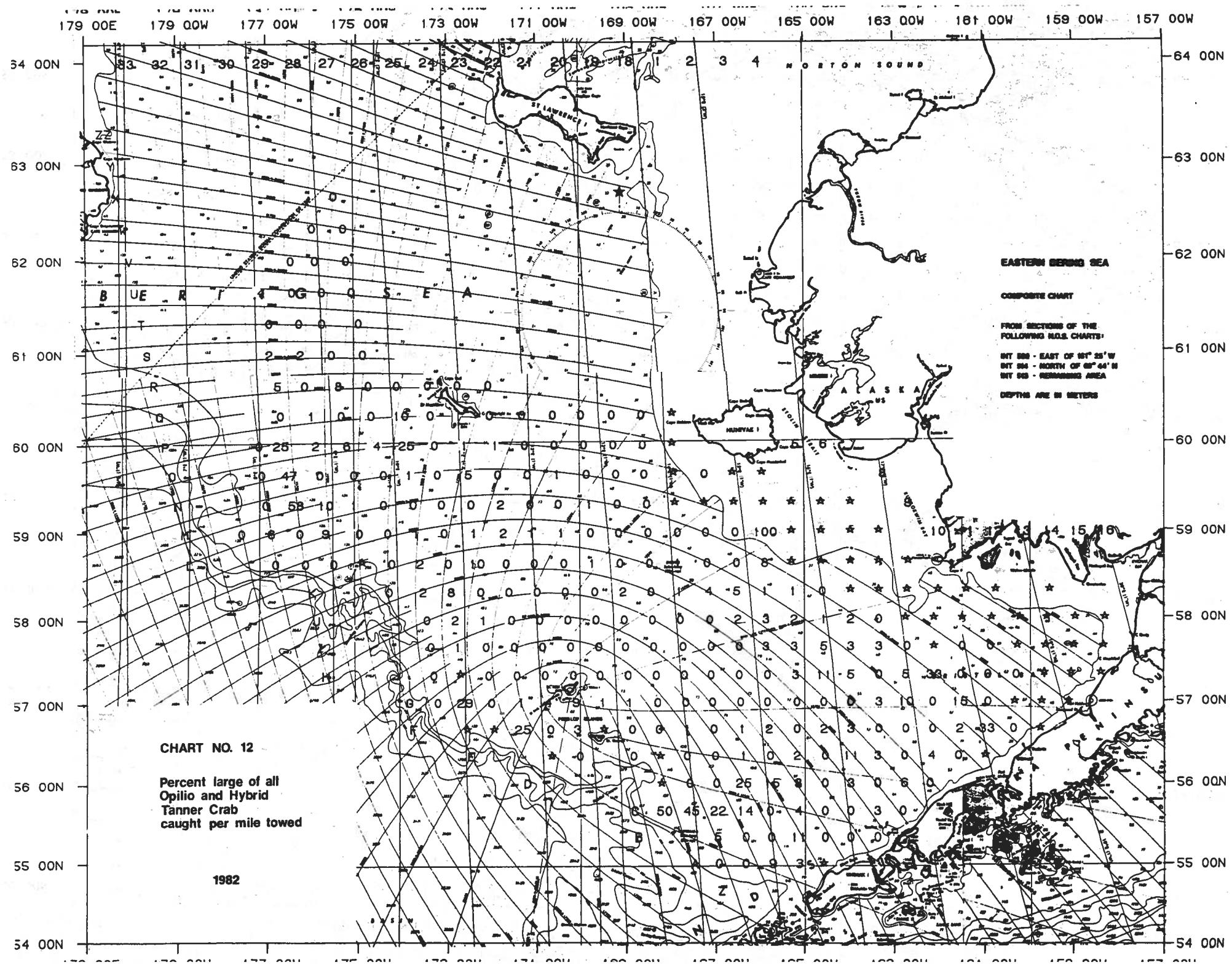


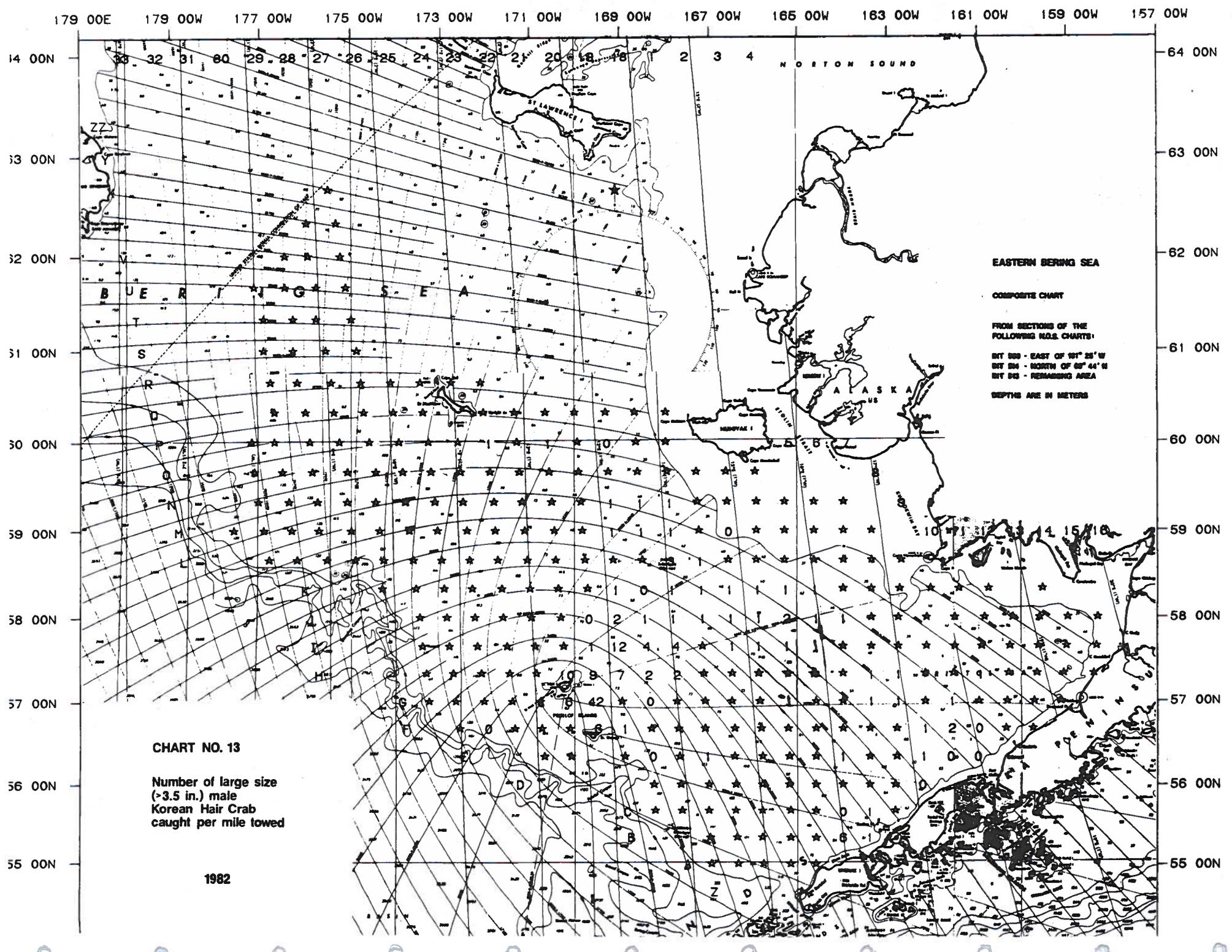


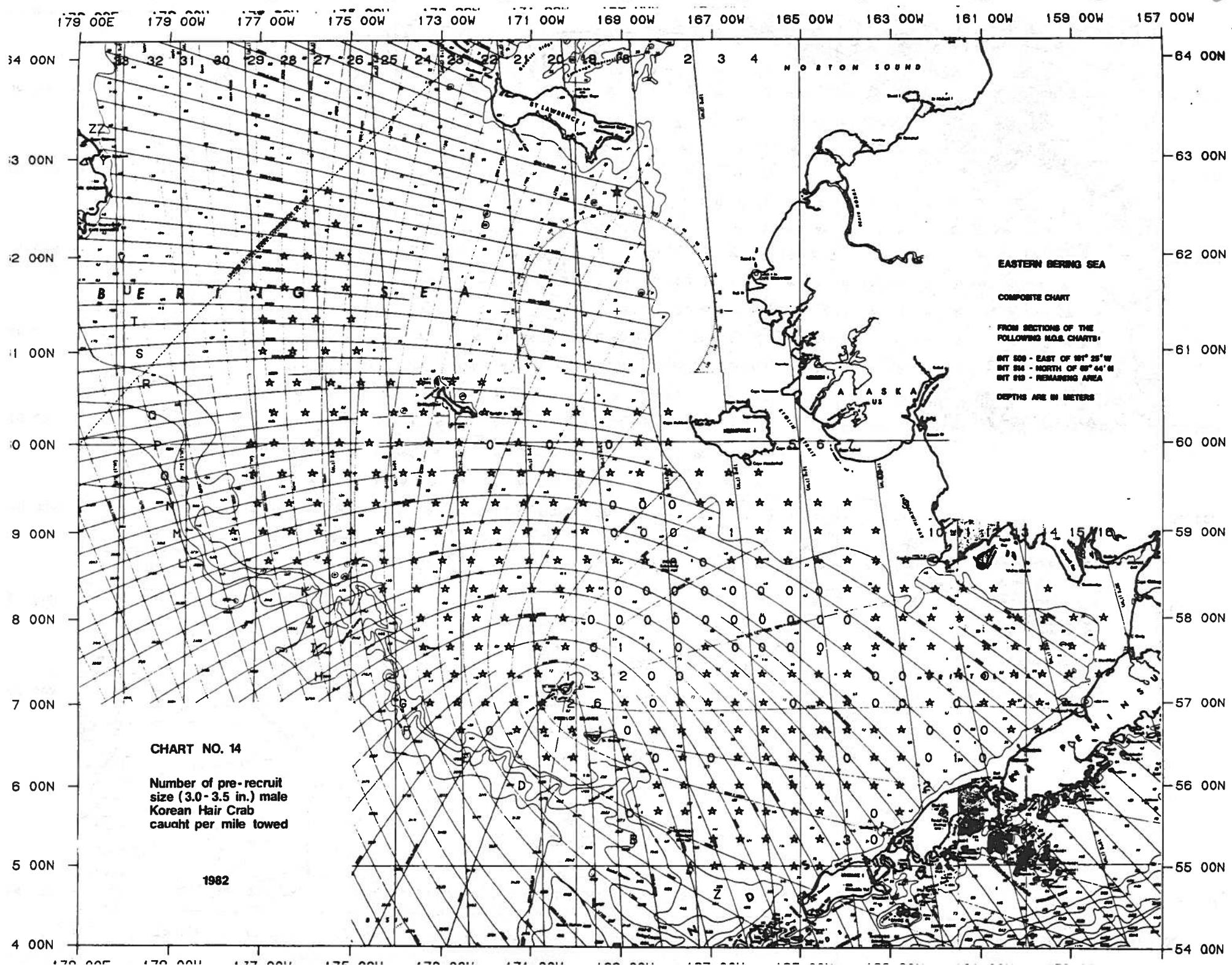


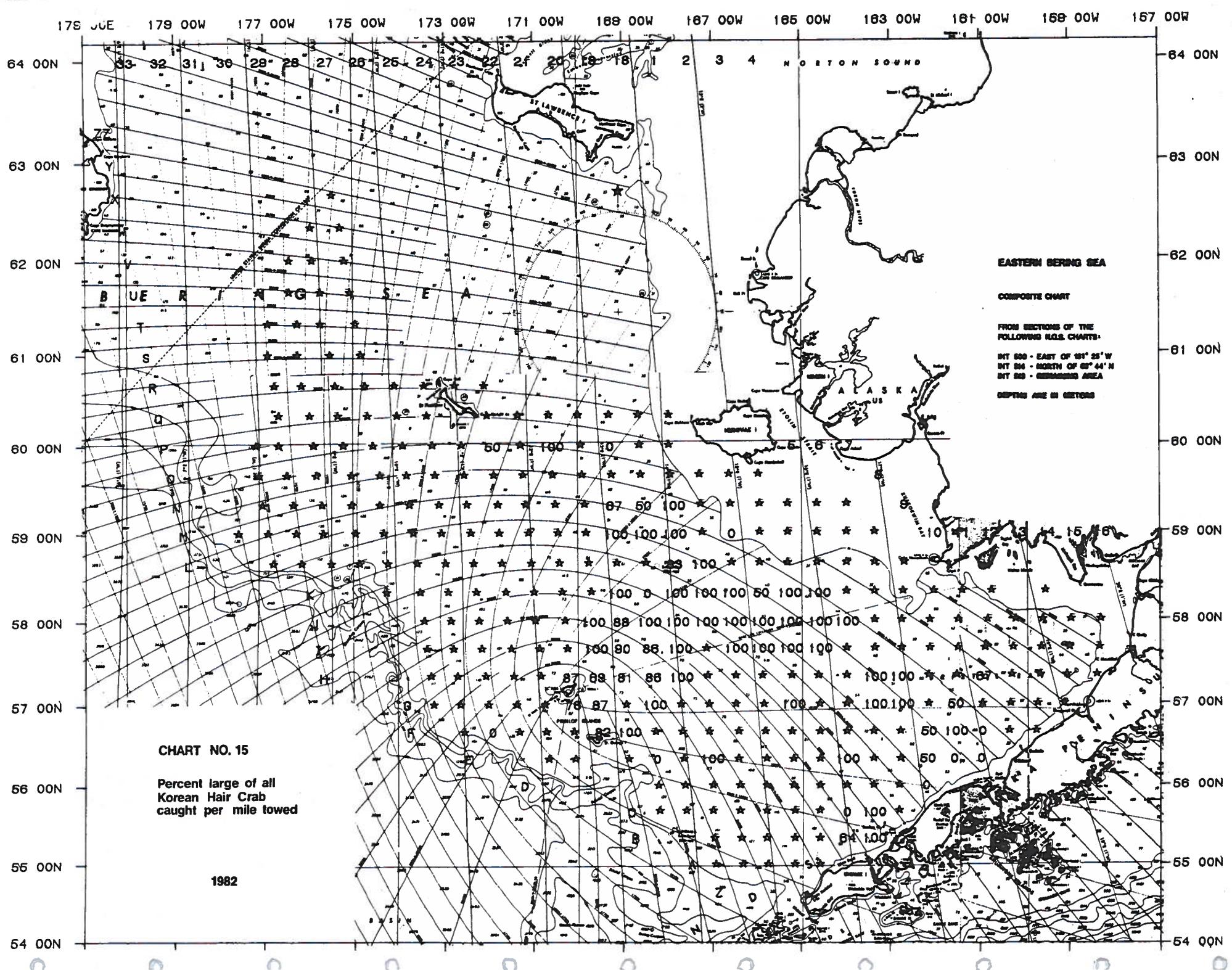












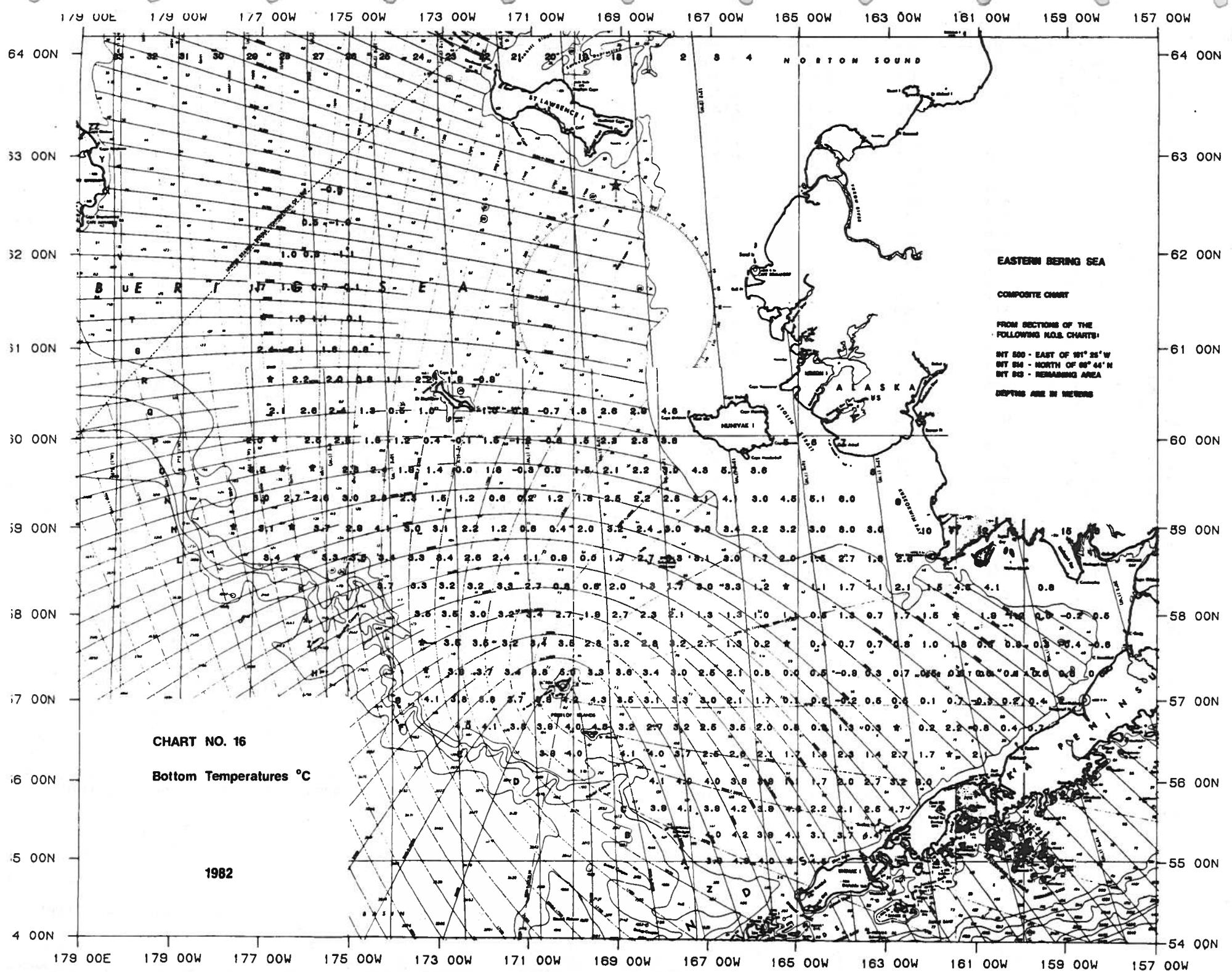


TABLE 4 DATA FROM THE 1982 EASTERN BEARING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)			TOTAL	PERCENT LEGAL
								SMALL PRERECruit	LARGE PRERECruit	LEGAL		
BOB	6/12	55-20	163-25	Y34239 Z47429	30	4.4	10.5	11.2	3.9	25.7	0.0	0.0
C06	6/13	55-39	164-34	Y34365 Z47886	55	2.2	4.9	0.0	0.0	4.9	0.0	0.0
C07	6/17	55-38	164-00	Y34274 Z47665	52	2.1	12.8	3.5	0.0	1.4	17.7	8.0
C08	6/12	55-40	163-24	Y34169 Z47431	46	2.5	0.0	0.7	0.0	0.7	0.0	0.0
C09	6/16	55-42	162-49	Y34073 Z47207	28	4.7	6.9	7.6	2.8	0.0	17.3	0.0
D07	6/17	56-00	164-00	Y34196 Z47675	49	2.0	7.1	1.9	0.0	40.1	0.0	0.0
D08	6/12	56-00	163-23	Y34094 Z47432	50	2.7	5.6	6.3	0.0	0.0	11.9	0.0
D09	6/16	56-01	162-48	Y33995 Z47201	42	3.2	5.7	0.6	1.3	0.0	7.6	0.0
D10	6/ 8	56-00	162-13	Y33909 Z46974	40	3.0	27.4	0.7	3.3	0.0	31.4	0.0
E07	6/17	56-18	163-59	Y34117 Z47676	47	2.3	0.0	0.0	0.6	0.6	1.2	50.0
E08	6/11	56-20	163-23	Y34009 Z47437	48	1.4	0.7	0.7	0.0	0.0	2.0	0.0
E09	6/16	56-21	162-47	Y33907 Z47197	42	2.7	6.7	3.3	0.6	0.0	10.6	0.0
E10	6/ 8	56-19	162-12	Y33821 Z46961	44	1.7	20.1	3.3	0.0	0.0	23.4	0.0
E11	6/13	56-38	161-38	Y33735 Z46734	35	2.1	723.0	710.5	18.4	2.6	1454.6	0.2
E12	6/ 7	56-20	161-00	Y33634 Z46481	29	2.1	53.5	45.5	0.7	1.3	101.0	1.3
F08	6/11	56-40	163-22	Y33908 Z47428	42	2.3	1.3	0.7	0.7	0.0	2.7	0.0
F09	6/16	56-41	162-47	Y33809 Z47189	39	2.1	3.1	0.0	0.0	0.0	4.4	0.0
F10	6/ 8	56-39	162-11	Y33724 Z46949	41	.2	16.9	3.4	2.7	0.0	22.9	0.0
F11	6/13	56-39	161-34	Y33630 Z46705	48	2.2	15.4	12.7	0.0	0.7	28.8	2.3
F12	6/ 7	56-40	160-59	Y33536 Z46468	38	2.7	31.4	0.7	2.7	0.7	35.4	1.9
F13	6/ 1	56-40	160-20	Y33447 Z46211	32	.4	323.0	310.3	6.8	1.7	641.8	0.3
F14	5/29	56-41	159-45	Y33561 Z45974	22	.7	1.3	0.6	0.0	0.0	1.9	0.0
G04	6/17	57-00	165-51	Y34246 Z48419	41	1.7	0.0	0.0	0.7	0.7	1.5	49.7
G05	6/20	57-01	165-12	Y34124 Z48161	38	0.0	0.0	0.0	0.6	0.0	0.6	0.0
G06	6/13	56-59	164-36	Y34022 Z47916	40	.2	0.0	2.0	4.7	0.7	7.4	9.1
G07	6/17	57-00	163-59	Y33911 Z47670	37	-2	0.0	7.5	5.8	0.6	13.9	4.1
G08	6/11	57-01	163-23	Y33804 Z47428	38	-5	2.7	17.4	7.4	1.3	28.8	4.7
G09	6/15	57-01	162-46	Y33704 Z47181	33	-5	19.0	64.4	17.2	0.0	100.6	0.0
G10	6/ 8	56-59	162-10	Y33616 Z46937	34	-7	56.8	50.9	20.4	2.2	130.3	1.7
G11	6/14	56-59	161-35	Y33528 Z46700	38	-7	107.3	19.1	11.9	3.0	141.2	2.1
G12	6/ 7	57-00	160-57	Y33426 Z46445	36	-3	40.1	4.1	0.7	0.7	45.6	1.5
G13	6/ 1	56-58	160-20	Y33350 Z46197	34	-2	18.3	3.3	2.0	0.0	23.5	0.0
G14	6/ 5	56-59	159-43	Y33264 Z45951	32	-4	5.5	2.8	2.1	0.0	10.4	0.0
G15	5/31	57-00	159-05	Y33177 Z45699	16	-4	4.4	0.0	1.5	0.0	5.9	0.0
G20	7/ 2	56-50	169-55	X18648 Z50003	40	4.5	0.0	0.0	0.0	0.0	0.0	0.0
G20	7/ 2	57-00	169-31	X18721 Z49887	35	3.8	2.2	0.0	0.0	0.0	2.2	0.0
G21	7/ 8	57-00	170-10	X18690 Z50118	36	4.7	2.1	0.0	0.0	0.7	2.8	25.1
G21	7/ 8	56-51	170-26	X18561 Z50120	53	3.7	0.0	0.0	0.0	0.0	0.0	0.0
H05	6/20	57-21	165-14	Y34010 Z48161	37	0	0.0	2.1	3.6	3.6	9.3	38.5
H06	6/14	57-19	164-37	Y33905 Z47909	38	-5	0.7	8.4	12.5	2.1	23.7	8.8
H07	6/17	57-19	163-59	Y33799 Z47659	34	-9	2.0	8.7	9.4	2.0	22.1	9.1
H08	6/11	57-20	163-24	Y33690 Z47420	31	-3	4.2	4.9	3.5	2.8	15.3	18.2
H09	6/15	57-20	162-46	Y33568 Z47166	26	-7	110.4	112.1	76.6	5.6	304.7	1.8
H10	6/ 9	57-20	162-09	Y33496 Z46920	29	-5	70.9	42.8	32.8	8.0	154.4	5.2
H11	6/14	57-19	161-34	Y33411 Z46690	30	-5	398.6	433.2	6.3	9.4	847.5	1.1

NOTE: PRERECRUIT = F. &gt; -6.4 IN. MINTHATFCR = GREATER THAN 6.4 IN. WITH

TABLE 4 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LOKAN C	DEPTH FTMS	BOTTOM TEMP.	FEMALES	NUMBER PER MILE TOWED			TOTAL	PERCENT LEGAL
								MALES (SEE NOTE)	SMALL FREERECUIT	LEGAL		
H12	6/ 7	57-20			.6		14.7		6.0	0.7	24.7	2.7
H13	6/ 1	57-18			.0	15.8	4.1	0.0	0.0	0.7	20.6	3.3
H14	6/ 5	57-19			.6	5.1	0.0	0.7	0.7	6.6	11.1	
H15	5/31	57-20			.6	19.3	16.2	1.3	1.3	38.0	3.3	
H16	5/29	57-20			.6	1.4	0.0	0.0	0.0	1.4	0.0	
H20	7/ 3	57-08			.5	1.4	0.0	0.0	0.0	0.0	0.0	
H20	7/ 3	57-19			4.4	1.1	0.7	0.0	0.0	7.7	20.2	37.9
H20	7/ 3	57-19			2.5	1.9	0.7	0.0	0.0	0.7	2.5	
H04	6/17	57-40			2.2	0.6	0.0	0.0	0.0	1.9	2.5	75.0
H05	6/19	57-40			.2	0.7	0.0	0.0	0.0	0.0	1.3	0.0
H06	6/14	57-39			.0	0.0	0.0	0.0	0.0	0.6	0.6	100.0
H07	6/18	57-39			.4	0.7	2.0	0.7	1.3	4.7	28.6	
H08	6/10	57-41			.7	7.8	0.0	2.6	0.6	0.6	11.1	5.9
H09	6/15	57-42			26	16.7	2.7	4.0	4.0	25.4		
H10	6/ 9	57-39			26	16.7	2.7	4.0	4.0	25.4		
H11	6/14	57-39			23	32.4	6.9	15.6	4.6	59.7	7.8	
H12	6/ 7	57-40			23	32.4	6.9	15.6	4.6	59.7	7.8	
H13	6/ 1	57-38			23	32.1	4.0	5.3	1.3	32.8	4.1	
H14	6/ 5	57-39			29	1.8	179.3	133.5	16.2	2.7	31.6	0.8
H15	5/31	57-40			29	1.8	179.3	133.5	16.2	2.7	31.6	0.8
H04	6/17	57-59			28	1.7	0.0	0.0	0.0	0.0	0.0	
H05	6/19	57-40			28	1.7	0.0	0.0	0.0	0.0	0.0	
H18	6/30	57-30			32	7	83.5	47.4	2.5	0.6	134.1	0.5
H18	6/30	57-30			29	.9	14.6	4.1	2.3	0.0	21.0	0.0
H21	7/ 7	57-41			29	.9	14.6	4.1	2.3	0.0	21.0	0.0
H21	7/ 7	57-30			30	.3	15.5	1.8	1.8	0.9	20.1	4.5
J04	6/17	57-59			26	-4	1.6	0.0	0.0	1.6	0.0	
J05	6/19	58-00			26	-4	0.0	0.0	0.0	0.0	0.0	
J06	6/14	57-30			26	2.5	0.0	0.0	0.0	0.0	0.0	
J07	6/18	57-58			26	3.1	0.0	0.0	0.0	0.6	0.6	100.0
J08	6/10	58-00			26	3.1	0.0	0.0	0.0	0.0	0.0	
J09	6/15	58-01			26	3.1	0.0	0.0	0.0	0.0	0.0	
J10	6/ 9	57-59			27	1.1	2.8	0.7	0.7	0.7	4.9	14.3
J11	6/14	57-58			27	1.1	2.8	0.7	0.7	3.5	2.1	9.0
J12	6/ 6	58-00			25	1.3	5.6	0.6	2.5	1.9	10.7	17.6
J13	6/ 1	57-59			25	1.7	8.0	0.7	0.0	0.0	8.7	0.0
J14	6/ 6	57-59			21	1.7	17.3	0.0	3.1	1.2	21.6	5.7
J15	5/31	58-00			22	1.5	11.5	1.5	0.7	0.7	13.8	0.0
J16	5/29	58-00			22	1.5	32.9	7.6	7.6	1.9	49.3	3.8
K02	6/28	58-21			25	1.9	16.0	1.3	2.7	0.0	20.1	0.0
K03	6/28	58-19			27	1.2	13.4	3.9	0.6	0.6	18.5	3.0
K04	6/16	58-20			24	0	2.1	2.9	0.0	0.0	5.0	0.0
K05	6/19	58-20			22	-2	4.3	3.5	0.0	0.0	7.8	0.0
K06	6/14	58-19			22	-2	4.3	3.5	0.0	0.7	2.2	33.2
K07	6/18	58-19			20	-5	2.1	0.7	0.0	1.3	6.0	22.3
K08	6/10	58-20			29	0	0.7	0.0	0.0	1.3	2.0	66.8
K09	6/15	58-21			22	3.0	1.8	0.6	0.6	0.0	3.0	0.0
K10	6/ 9	58-18			20	1.1	2.7	0.0	0.7	0.7	4.0	16.6
					16	2.1	5.7	0.0	0.7	0.7	8.6	8.3
					27	1.5	2.2	0.0	0.7	0.7	0.7	3.7

NOTE: FRE-RECRUIT = 5.2-6.4 IN. WIDTH; LEGAL = GREATER THAN 6.4 IN. WIDTH

TABLE 4 DATA FROM THE 1982 EASTERN BEIJING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FMS	EDITION TEMP	FEMALES	SMALL PRE-RECRUIT	TOTAL	NUMBER PER MILE TOWED	
										PALE (GILL NET)	PERCENT LEGAL
K11	6/14	58°15'	161°24'	Y33022	246597	21	4.0	0.7	0.0	0.0	0.0
K14	6/6	58°19'	159°32'	Y32776	245876	14	7	0.0	1.4	0.0	1.4
K14	6/28	58°40'	167°15'	Y33688	248724	23	3.1	2.9	0.0	0.7	3.3
L02	6/28	58°39'	166°34'	X18598	248501	23	3.0	0.0	0.6	0.0	0.6
L03	6/16	58°40'	165°55'	Y33488	248267	21	1.7	1.4	0.0	0.0	1.4
L04	6/16	58°40'	165°17'	Y33394	248043	20	2.0	0.6	0.0	1.2	0.6
L05	6/19	58°40'	164°39'	Y33212	247809	22	1.5	0.7	0.7	0.0	2.1
L06	6/14	58°39'	163°40'	Y33206	247562	17	2.7	0.6	0.0	0.6	0.0
L07	6/16	58°40'	162°42'	Y33027	247079	13	2.6	0.0	0.0	0.6	0.0
L09	6/15	58°39'	162°42'	Y33563	248848	22	3.0	0.0	0.0	0.6	100.0
L01	6/30	59°00'	167°52'	Y33491	248651	23	3.0	0.7	1.4	0.0	2.0
H02	6/28	59°60'	167°14'	Y33634	248662	19	3.4	0.5	0.0	0.5	0.0
H03	6/28	58°58'	165°17'	Y33207	247993	14	3.2	1.6	0.0	3.0	0.0
H05	6/19	59°00'	164°39'	Y33150	247267	16	3.0	0.0	1.5	0.0	2.2
H06	6/15	58°59'	164°38'	Y33041	247531	14	8.0	0.6	0.0	0.6	1.3
H07	6/18	58°59'	163°59'	Y33101	248161	19	3.0	0.0	0.7	0.0	0.7
H04	6/16	59°20'	165°57'	Y32945	247724	12	5.1	0.7	0.0	1.3	0.0
H06	6/15	59°19'	164°39'	Y33409	248942	24	11.2	0.7	0.0	1.3	0.0
P16	6/26	58°26'	168°33'	Y32948	248771	20	2.3	0.0	0.7	0.0	0.7
P18	6/27	58°59'	168°39'	Y32709	248386	21	2.9	0.0	0.0	0.7	100.0
G13	6/27	60°40'	168°40'								

NOTE: PRE-RECRUIT = 3, 2-6, 4 IN. WITH LEGAL = GREATER THAN 3, A 10' WITH

TABLE 5 DATA FROM THE 1982 EASTERN BEKING SEA TRAWL SURVEY WHERE BLUE KING CRAB WERE TAKEN

NUMBER PER MILE TOWED

STATION	DATE	LATITUDE	LONGITUDE	DEPTH FMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)			TOTAL	PERCENT LEGAL
							SMALL	PRERECruit	LEGAL		
F04	6/18	56°20'	165°47'	134429	Z433394		2.1	0.6	0.0	0.6	0.0
F20	7/ 2	56°39'	169°30'	X13610	Z478641		4.6	0.0	0.0	0.7	50.0
G01	7/ 1	56°59'	167°42'	X18713	Y345677		1.3	0.0	0.0	0.7	0.0
618	7/ 1	56°51'	168°38'	Y34863	Z49575	5.4	1.0	0.0	0.0	0.0	100.0
618	6/30	57°00'	168°20'	Y34752	Z49417	4.7	3.7	0.0	0.0	0.0	0.0
619	7/ 2	56°58'	168°59'	X18715	Z49676	4.1	3.4	2.1	0.0	0.0	3.5
619	7/ 2	56°49'	169°19'	X18675	Z49791	4.7	3.4	4.6	0.0	0.0	39.9
G20	7/ 2	56°50'	169°55'	X18645	Z50003	4.0	4.5	1.4	0.7	0.0	0.0
G20	7/ 2	57°00'	169°31'	X18721	Z49887	3.5	3.6	36.8	6.5	0.7	1.4
G21	7/ 8	56°51'	170°26'	X18561	Z50159	5.3	3.7	0.0	0.0	0.0	0.0
G21	7/ 8	57°00'	170°10'	X18690	Z50118	3.6	4.7	18.8	5.6	2.1	0.0
H01	6/30	57°22'	167°44'	Y34489	Z49155	3.9	3.0	0.0	0.0	0.6	0.6
H18	6/30	57°20'	168°23'	Y34639	Z49416	4.2	3.4	0.7	0.7	0.0	2.0
H18	6/30	57°10'	168°37'	Y34788	Z49811	0	4.3	3.4	1.4	0.0	0.0
H19	7/ 3	57°08'	169°19'	Y34927	Z49811	3.9	3.5	6.4	0.0	0.0	2.1
H19	7/ 3	57°18'	169°01'	Y34788	Z49671	3.9	3.5	0.0	1.6	0.9	7.3
H20	7/ 3	57°19'	169°36'	0	0	34	2.2	5.7	1.3	0.6	0.0
H20	7/ 3	57°08'	169°54'	X18746	Z50042	25	4.4	186.8	2.1	2.1	197.9
H21	7/ 7	57°21'	170°16'	X18692	Y34988	31	5.0	0.7	0.0	0.0	85.7
H23	7/ 9	57°18'	171°27'	X18288	Y34877	55	3.4	0.0	0.0	0.6	100.0
H24	7/ 9	57°19'	172°05'	Y34779	X18044	61	3.7	0.0	0.0	1.3	100.0
H24	6/30	57°30'	168°38'	Y34614	Z49492	40	3.1	5.2	1.3	0.6	14.3
H24	6/30	57°40'	168°25'	Y34485	Z49376	40	2.5	0.7	1.4	0.0	3.5
H24	7/ 3	57°40'	169°04'	Y34610	Z49617	37	2.5	0.6	0.0	0.6	0.0
H24	7/ 3	57°29'	169°17'	Y34754	Z49742	38	3.7	0.0	0.0	1.3	15.4
I20	7/ 3	57°29'	169°58'	Y34868	Z49970	42	2.6	2.7	1.3	5.3	50.0
I20	7/ 3	57°39'	169°40'	Y34708	Z49818	40	2.9	1.3	0.0	0.6	33.2
I21	7/ 7	57°30'	170°33'	X18588	Y34869	40	3.7	0.0	0.0	2.3	100.0
I21	7/ 7	57°41'	170°17'	X18607	Y34748	39	3.2	2.5	1.2	3.7	42.9
I22	7/ 8	57°39'	170°53'	Y34747	Z50052	50	3.4	0.0	0.0	3.6	100.0
I23	7/ 9	57°40'	171°30'	X18260	Z50085	54	3.2	0.0	0.0	0.6	100.0
J18	6/30	57°50'	168°41'	Y34440	Z49435	40	2.3	4.3	9.9	0.0	15.6
J18	6/26	58°00'	168°26'	Y34295	Z49306	40	2.2	0.0	0.7	2.1	50.0
J19	7/ 4	58°00'	169°02'	Y34289	Z49508	38	2.0	0.6	0.0	1.3	49.8
J19	7/ 3	57°49'	169°18'	Y34552	Z49650	35	3.3	0.0	0.6	1.2	66.4
J20	7/ 4	58°00'	169°41'	Y34473	Z49699	40	2.4	0.0	0.0	0.7	3.3
J20	7/ 3	57°50'	169°59'	Y34620	Z49838	41	1.3	0.7	0.0	3.6	83.3
J21	7/ 7	57°51'	170°35'	X18505	Y34626	42	3.6	0.0	1.8	3.7	50.0
J21	7/ 6	58°01'	170°19'	X18520	Y34497	40	1.8	0.0	1.4	3.5	11.9
J23	7/ 9	57°58'	171°35'	X18201	Y34488	53	3.2	0.0	1.2	1.2	100.0
K22	7/ 7	58°00'	171°01'	Y34268	Z49818	48	2.7	0.7	0.0	3.4	4.1
K23	7/ 9	58°17'	171°38'	X18143	Y34277	52	3.3	0.0	0.0	2.1	100.0
L19	7/ 4	58°38'	169°08'	Y33961	Z49324	34	1.7	0.0	0.0	0.6	100.0
L21	7/ 6	58°41'	170°26'	X18352	Y34013	40	1.9	0.0	1.9	1.9	100.0
N24	7/10	59°19'	172°29'	Z49648	X17775	50	1.2	0.0	0.0	5.5	5.5

NOTE: PRE-RECRUIT = 5.2-6.4 IN. WIDTH; LEGAL = GREATER THAN 6.4 IN. WIDTH FOR AREA S, OF 58:39N  
 PRE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH FOR AREA N, OF 58:39N

TABLE 5-960 FROM THE 1982 EASTERN HERITAGE SURVEY WHERE ELLIOTT ISLAND WAS LOCATED.

THE JOURNAL OF CLIMATE

TABLE 6 DATA FROM THE 1982 EASTERN BRITISH CROWN COUNTY WHITE BAITER TOWERS WHERE CROWE WERE TRAPED

CROWE NUMBER	NAME	LATITUDE	LONGITUDE	COLLECTOR	WHT. FISHES	FISHES	FEMALLES	SMALL	FIRECRUITS	LEGAL	TOTAL	PROPORTION OF FIRECRUITS			
												NOTE	LEGAL		
F001	6/1/0	55.00	165.00	Y34074	748079	92	3.9	23.6	4.3	0.0	79.4	0.0	0.0		
F002	6/1/26	55.00	165.00	X16384	748479	78	4.9	38.2	35.2	10.3	185.3	5.3	5.3		
F004	6/1/13	55.00	165.44	Y34652	748066	72	4.0	19.1	141.0	22.8	2.9	185.8	1.6	1.6	
F005	6/1/1	55.00	165.05	Y34565	748056	61	-	19.6	20.4	0.5	6.6	46.7	0.0	0.0	
F007	6/1/9	55.14	165.14	168.53	Y34768	748276	73	4.6	73.6	11.5	15.9	5.0	106.0	4.8	4.8
F005	6/1/26	55.00	165.13	166.50	Y18367	748515	73	4.2	22.2	40.8	3.2	1.3	72.5	1.8	1.8
F004	6/1/18	55.00	165.47	165.20	Y34614	748316	67	3.9	43.9	9.8	14.6	4.2	72.5	5.0	5.0
F005	6/1/1	55.00	165.09	165.09	Y34516	748083	61	4.1	0.6	3.9	2.6	0.0	7.2	0.0	0.0
F006	6/1/3	55.14	165.19	164.35	Y34478	748273	59	3.7	12.3	17.1	3.9	0.0	38.4	0.0	0.0
F007	6/1/6	55.00	165.56	163.70	Y34336	748743	46	3.7	11.2	24.9	5.6	3.7	47.4	7.9	7.9
F006	6/1/3	55.00	165.45	165.20	Y34239	748479	70	3.4	1.3	1.3	0.0	0.0	5.9	0.0	0.0
F004	6/1/1	55.00	165.42	165.32	X19416	748453	74	4.1	48.8	18.1	13.4	2.0	62.0	2.4	2.4
F005	6/1/1	55.00	165.35	165.35	Y34259	748279	75	3.9	0.0	2.4	0.0	0.0	5.7	14.3	14.3
F002	6/1/18	55.30	166.52	X18454	748543	70	4.2	9.4	10.7	16.7	16.7	2.7	39.4	6.8	6.8
F003	6/1/3	55.30	165.40	165.40	Y34564	748351	66	3.9	5.0	5.7	0.7	0.0	11.3	0.0	0.0
F005	6/1/21	55.41	165.09	Y34455	748105	60	4.8	6.4	13.6	5.7	1.4	1.4	77.0	5.3	5.3
F006	6/1/13	55.36	164.33	Y34355	747836	56	2.2	55.6	38.3	0.7	0.0	94.6	0.0	0.0	
F007	6/1/7	55.30	164.00	Y34274	747665	52	2.1	2.4	2.4	0.0	0.0	0.0	5.7	2.9	2.9
F008	6/1/2	55.40	163.24	Y34169	747431	46	2.5	29.4	12.0	44.8	12.0	12.0	158.5	7.6	7.6
F009	6/1/6	55.42	162.49	Y34073	747267	32	4.7	0.0	2.1	0.0	0.0	0.0	2.1	0.0	0.0
F118	7/1/1	55.40	168.11	X18357	749204	77	3.9	2.1	9.3	0.0	0.0	0.0	11.4	0.0	0.0
F001	7/1/1	56.00	167.34	Y34819	748499	74	4.0	20.1	36.2	10.2	0.0	0.0	61.3	0.0	0.0
F002	6/1/19	56.00	167.31	Y34718	748639	77	4.0	0.8	0.8	0.8	0.0	0.0	1.6	0.0	0.0
F003	6/1/26	56.00	166.94	X18534	748603	67	3.9	2.7	1.3	1.3	0.0	0.0	5.3	0.0	0.0
F004	6/1/18	56.00	165.47	Y34562	748371	60	3.9	3.9	5.2	7.1	2.6	0.0	17.0	0.0	0.0
F005	6/1/20	56.00	165.10	Y34393	748133	53	1.1	12.1	10.1	4.0	0.0	0.0	26.3	0.0	0.0
F006	6/1/3	56.00	164.35	Y34819	748499	74	4.0	20.1	36.2	10.2	0.0	0.0	69.4	0.0	0.0
F007	6/1/7	56.00	164.00	Y34718	748639	77	4.0	0.8	0.8	0.8	0.0	0.0	1.6	0.0	0.0
F008	6/1/12	56.00	163.23	Y34094	747432	50	2.7	47.3	13.0	9.1	7.1	7.1	76.4	9.3	9.3
F009	6/1/4	56.01	162.48	Y33995	747201	42	3.2	7.0	7.0	0.0	0.0	0.0	13.9	0.0	0.0
F110	6/1/6	56.00	162.13	Y33990	746974	40	3.0	82.2	8.2	9.5	2.5	2.5	102.5	2.5	2.5
F001	7/1/1	56.00	162.00	162.00	Y34709	747665	40	3.0	16.7	2.7	2.0	0.0	15.4	0.0	0.0
F002	6/1/19	56.00	161.94	0	84	4.1	6.1	6.1	6.1	1.4	0.0	0.0	13.6	0.0	0.0
F003	6/1/20	56.00	161.38	413587	Y34722	70	3.7	9.5	4.7	7.2	0.0	0.0	18.2	4.3	4.3
F004	6/1/19	56.00	161.00	Y34557	748864	65	2.5	1.4	2.1	6.7	0.7	0.7	4.8	14.3	14.3
F005	6/1/26	56.00	161.24	X18605	748631	55	2.6	9.6	2.3	2.3	0.6	0.6	14.7	3.8	3.8
F006	6/1/13	56.00	161.57	161.57	Y34429	748390	52	2.1	14.2	13.0	1.9	0.6	29.6	2.2	2.2
F007	6/1/17	56.00	161.51	Y34319	748153	39	1.7	17.8	30.4	0.7	0.0	0.0	48.9	0.0	0.0
F008	6/1/12	56.00	161.34	Y34217	747061	50	1.8	7.0	6.4	0.0	0.0	0.0	16.0	4.4	4.4
F009	6/1/4	56.01	161.18	Y34117	747676	47	2.3	11.4	4.8	6.0	0.6	0.6	22.8	2.6	2.6
F110	6/1/6	56.00	161.00	161.00	Y34009	747457	48	1.4	8.6	2.0	2.0	0.0	27.7	15.9	16.7
F001	6/1/16	56.21	161.37	Y33907	747197	42	2.7	6.7	2.2	2.2	1.1	1.1	12.2	2.1	2.1
F005	6/1/8	56.00	161.19	161.19	Y33821	746961	44	1.7	12.7	1.3	2.7	6.0	26.5	2.7	2.7
F006	6/1/13	56.19	161.19	161.34	Y32235	746734	35	1.3	1.3	3.9	1.3	0.7	7.4	9.1	9.1
F111	6/1/13	56.19	161.00	Y33634	746481	29	2.1	23.4	3.3	6.7	0.0	0.0	46.8	1.4	1.4
F112	6/1/7	56.20	161.15	0	85	4.0	14.7	45.5	16.0	1.3	77.6	1.7	1.7		

NOTE: FIRECRUIT = A, Z, S, 4 IN. WITH LEGAL = GREATER THAN 5.4 IN. WIDTH

TABLE 6 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRILL TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP FTMS	FEMALES	SMALL PRERECruit	LEGAL	NUMBER PER MILE TOWED	
										MALES (SEE NOTE)	TOTAL
E19	7/ 2	56-20		X18534 Z49554	69	4.1	296.6			5.3	1.3
E21	7/ 8	56-20		X18405 Z49901	60	4.0	9.2	8.6	4.6	0.0	23.4
E22	7/ 8	56-20		X18271 Z49516	68	3.9	463.7	67.6	33.2	0.7	565.2
F01	7/ 1	56-40		X18633 Y34703	54	3.2	0.7	0.7	2.7	0.0	4.0
F02	6/29	56-39		167-04	54	2.5	0.0	0.0	0.7	0.0	0.0
F03	6/27	56-38		166-25	X18664 Z48650	44	3.5	1.2	0.0	0.0	2.5
F04	6/17	56-40		165-49	Y34346 Z4B409	44	2.0	4.6	1.3	0.7	8.0
F05	6/20	56-40		165-11	Y34226 Z4B157	41	.9	0.0	2.0	0.0	2.0
F06	6/13	56-39		164-36	Y34127 Z47922	43	.3	1.4	1.4	0.0	4.2
F07	6/17	56-39		164-00	Y34018 Z47671	41	1.3	2.8	3.3	1.1	0.0
F08	6/11	56-40		163-22	Y33908 Z47428	42	.3	4.7	1.3	2.0	0.0
F09	6/16	56-41		162-47	Y33809 Z47189	39	.2	3.1	3.1	5.0	1.3
F10	6/ 8	56-39		162-11	Y33724 Z46949	41	.2	4.7	8.1	6.1	4.0
F11	6/13	56-39		161-34	Y33630 Z46705	48	2.2	18.7	1.3	6.7	6.0
F12	6/ 7	56-40		160-59	Y33536 Z46468	38	.7	2.7	0.7	3.3	2.7
F13	6/ 1	56-40		160-20	Y33447 Z46211	32	.4	22.0	19.5	5.9	2.5
F18	7/ 1	56-39		168-19	0	0	60	2.7	4.5	5.3	0.8
F19	7/ 2	56-39		168-53	X18635 Z49610	54	3.2	97.0	7.1	9.0	0.6
F20	7/ 2	56-39		169-30	X18610 Z49826	44	4.6	0.0	0.7	0.0	1.3
F21	7/ 8	56-40		170-08	X18543 Z50009	52	4.0	10.3	55.1	38.9	4.4
F22	7/ 8	56-40		170-44	X18402 Y35126	64	3.9	38.3	13.9	25.8	2.1
F23	7/ 9	56-39		171-19	X18201 Z50144	65	3.8	221.2	85.6	74.8	6.8
F24	7/ 9	56-40		171-58	X177971 Y34992	71	4.1	30.7	87.1	1.4	0.0
F25	7/13	56-40		172-37	X17720 Y34902	76	4.0	13.0	9.4	0.7	0.0
G01	7/ 1	56-59		167-42	X18713 Y34627	42	3.3	2.7	6.0	1.3	0.0
G02	6/29	57-00		167-04	0	0	42	3.0	1.4	0.0	0.7
G03	6/27	56-58		166-27	X18709 Z48663	40	2.1	0.6	0.6	0.0	1.3
G04	6/17	57-00		165-51	Y34246 Z48419	41	1.7	0.7	0.0	0.0	0.7
G05	6/20	57-01		165-12	Y34124 Z48161	38	.0	0.0	2.4	1.2	0.0
G06	6/13	56-59		164-36	Y34022 Z47916	40	.2	0.0	0.7	0.0	0.7
G07	6/17	57-00		163-59	Y33911 Z47670	37	-.2	2.9	1.7	1.7	0.4
G08	6/11	57-01		163-23	Y33804 Z47428	38	.5	0.0	0.7	1.3	0.7
G09	6/15	57-01		162-46	Y33704 Z47181	33	.5	1.8	1.2	4.3	3.7
G10	6/ 8	56-59		162-10	Y33616 Z46937	34	0	2.2	1.5	6.5	0.0
G11	6/14	56-59		161-35	Y33528 Z46700	38	.7	1.8	0.6	4.2	2.4
G12	6/ 7	57-00		160-57	Y33426 Z46445	36	-.3	2.1	0.0	0.7	7.6
G13	6/ 1	56-58		160-20	Y33350 Z46197	34	.5	9.8	1.3	2.0	5.9
G14	6/ 5	56-59		159-43	Y33264 Z45951	32	.4	55.3	37.3	8.3	0.7
G18	6/30	57-00		168-20	Y34752 Z49417	40	3.1	6.5	9.0	2.8	0.0
G18	7/ 1	56-51		168-38	Y34863 Z49535	53	2.8	0.0	3.1	1.5	0.0
G19	7/ 2	56-49		169-19	X18675 Z49791	42	3.4	3.3	0.7	1.3	0.0
G19	7/ 2	56-58		168-59	X18715 Z49678	43	3.5	1.4	3.5	0.0	6.4
G20	7/ 2	57-00		169-31	X18721 Z49887	35	3.8	21.6	16.6	14.4	1.4
G20	7/ 2	56-50		169-55	X18648 Z50003	40	4.5	22.5	18.3	71.0	34.4
G21	7/ 8	57-00		170-10	X18690 Z50118	36	4.7	36.9	24.4	35.5	3.5

NOTE: FINE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH

TABLE 6 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE FAIRWEATHER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)			TOTAL	PERCENT LEGAL
								SMALL PRERECruit	LARGE PRERECruit	TOTAL		
621	7/ 8	56°51'	170°26'	X18561	Z50120	53	3.7	3.9	75.7	47.4	4.6	3.5
622	7/ 8	57°00'	170°47'	0	0	53	3.9	1.3	4.6	0.0	22.8	0.0
623	7/ 9	56°58'	171°24'	X18264	Y35004	60	3.7	4.2	24.7	13.9	1.3	84.0
624	7/ 9	57°00'	171°58'	X18053	Y34909	65	3.8	100.2	42.8	28.3	4.8	176.2
625	7/18	57°00'	172°41'	X17770	Y34803	66	3.8	411.2	48.7	28.2	0.8	488.8
626	7/18	57°01'	173°16'	X17543	Y34715	76	4.9	14.9	39.0	0.0	0.0	53.9
H01	6/30	57°22'	167°44'	Y34489	Z49155	39	3.0	0.6	1.2	0.0	0.6	2.4
H02	6/29	57°20'	167°08'	Y	0	40	2.5	0.0	1.4	0.7	0.0	2.1
H05	6/20	57°21'	165°14'	Y34010	Z48161	37	0	0.0	0.0	1.4	0.0	0.0
H07	6/17	57°19'	163°59'	Y33799	Z47659	34	-9	0.0	0.0	0.7	0.0	0.0
H08	6/11	57°20'	163°24'	Y33690	Z47420	31	-3	1.4	0.0	0.0	0.7	3.5
H09	6/15	57°20'	162°46'	Y33588	Z47166	26	-7	2.3	5.6	3.4	1.7	20.1
H10	6/ 9	57°20'	162°09'	Y33496	Z46920	29	5	0.0	2.7	1.3	2.0	6.0
H11	6/14	57°19'	161°34'	Y33411	Z46690	30	5	38.9	13.8	6.3	1.3	60.3
H12	6/ 7	57°20'	160°56'	Y33315	Z46433	36	-6	2.0	0.0	0.7	1.3	4.0
H13	6/ 1	57°18'	160°17'	Y33236	Z46176	33	0	7.5	3.4	2.7	8.9	22.6
H14	6/ 5	57°19'	159°39'	Y33151	Z45921	32	-6	37.5	55.8	13.9	0.7	108.7
H15	5/31	57°20'	159°05'	Y33070	Z45690	25	-6	1.9	0.6	0.0	0.0	33.3
H18	6/30	57°20'	168°23'	Y34639	Z49416	42	3.4	0.7	0.0	0.0	0.7	0.0
H18	6/30	57°10'	168°37'	0	0	43	3.4	2.8	20.6	1.4	0.0	24.8
H19	7/ 3	57°08'	169°19'	Y34927	Z49811	39	3.5	4.6	6.4	4.6	1.6	17.4
H19	7/ 3	57°18'	169°01'	Y34788	Z49671	39	3.5	6.3	4.7	6.3	0.8	18.2
H20	7/ 3	57°03'	169°36'	0	0	34	2.2	3.2	3.2	0.0	0.0	6.3
H20	7/ 3	57°08'	169°54'	X18746	Z50042	25	4.4	7.0	16.0	5.6	1.4	30.7
H22	7/ 8	57°21'	170°52'	0	0	47	3.8	0.7	2.1	1.4	0.7	5.0
H23	7/ 9	57°18'	171°27'	X18268	Y34877	55	3.4	6.4	4.6	4.6	1.6	10.5
H24	7/ 9	57°19'	172°05'	Y34779	X18044	61	3.7	31.4	18.7	13.4	0.7	4.3
H25	7/18	57°19'	172°43'	X17802	Y34691	62	4.2	49.2	21.1	14.1	0.0	64.2
H26	7/18	57°20'	173°16'	X17594	Y34606	65	0	103.4	24.3	8.9	0.0	84.4
H02	6/29	57°40'	167°08'	0	0	38	2.1	0.0	0.7	0.0	0.7	0.0
H03	6/27	57°44'	166°31'	Y34087	Z48638	36	1.3	0.0	1.2	0.0	0.0	1.2
H05	6/19	57°40'	165°14'	Y33875	Z48139	33	0	0.0	0.0	0.0	0.6	0.6
H06	6/14	57°39'	164°37'	Y33775	Z47892	31	4	0.0	0.7	0.0	0.0	0.0
H07	6/18	57°39'	163°59'	Y33671	Z47643	28	7	2.0	7.2	0.6	0.0	9.8
H13	6/ 1	57°38'	160°15'	Y33117	Z46157	29	9	17.5	40.8	8.2	2.3	68.8
H14	6/ 5	57°39'	163°23'	Y33559	Z47402	26	7	1.3	8.7	0.7	0.0	10.7
H18	6/30	57°40'	162°45'	Y33453	Z47149	23	7	1.7	4.6	0.6	0.6	7.7
H18	6/30	57°30'	161°28'	Y33282	Z46644	29	1.8	7.4	4.7	4.0	0.7	16.9
H19	7/ 3	57°29'	169°17'	Y34754	Z49742	38	7	5.7	3.2	6.3	1.3	16.4
H19	7/ 3	57°40'	169°04'	Y34610	Z49617	37	2.7	0.6	0.6	0.0	0.6	3.8
H20	7/ 3	57°39'	169°40'	Y34708	Z49818	40	2.9	0.0	0.0	0.0	0.0	0.0

NOTE: PRE-RECRUIT = 4.3-5.4 IN., WIDTH; LEGAL = GREATER THAN 5.4 IN., WIDTH

TABLE 6 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRD TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	NUMBER PER MILE TOWED			TOTAL	PERCENT LEGAL
								MALES	(SEE NOTE)	FREERECruit		
I20	7/ 3	57°-29'	169°-58'	Y34868 Z49970	42	2.6	2.0	2.7	2.0	0.7	7.3	9.1
I21	7/ 7	57°-41'	170°-17'	X18607 Y34748	39	3.2	1.7	0.0	0.0	0.0	3.3	0.0
I21	7/ 7	57°-30'	170°-33'	X18588 Y34869	40	3.7	0.0	0.0	0.0	0.0	0.0	0.0
I22	7/ 8	57°-39'	170°-53'	Y34747 Z50052	50	3.4	0.0	1.5	0.7	0.0	2.2	0.0
I23	7/ 9	57°-40'	171°-30'	X18260 Z50085	54	3.2	2.1	10.0	5.0	5.0	22.1	22.6
I24	7/ 9	57°-39'	172°-09'	Y 0 X 0	60	3.5	16.4	6.9	4.1	0.7	28.1	2.4
I25	7/13	57°-44'	172°-48'	X17793 Y34490	66	3.5	163.5	28.1	1.9	222.8	0.9	
I26	7/18	57°-39'	173°-22'	X17582 Y34461	78	1	230.9	76.2	30.8	1.3	339.2	0.4
J02	6/29	57°-59'	167°-10'	Y34074 Z48845	37	1.3	0.0	0.0	0.7	0.0	0.7	0.0
J04	6/17	57°-59'	165°-54'	Y33848 Z48362	32	1.0	0.0	2.0	0.0	0.0	2.0	0.0
J05	6/14	57°-59'	164°-37'	Y33631 Z47868	26	1.7	0.0	1.4	0.0	0.0	1.4	0.0
J07	6/18	57°-58'	164°-00'	Y33533 Z47625	25	1.3	1.3	3.1	0.0	0.0	4.4	0.0
J08	6/10	58°-00'	163°-23'	Y33424 Z47384	25	1.7	0.0	0.7	0.0	0.0	0.7	0.0
J11	6/14	57°-58'	161°-28'	Y33156 Z46634	26	1	0.6	1.3	0.0	0.0	2.5	0.0
J13	6/ 1	57°-59'	160°-12'	Y32985 Z46132	27	1.2	1.1	2.2	0.0	0.0	3.4	0.0
J18	6/30	57°-50'	168°-41'	Y34440 Z49435	40	2.3	0.7	0.0	0.0	0.0	0.7	0.0
J18	6/26	58°-00'	168°-26'	Y34295 Z49306	40	2.2	0.0	0.0	0.0	0.0	0.0	0.0
J20	7/ 4	58°-00'	169°-41'	Y34473 Z49699	40	2.4	0.7	0.0	0.0	0.0	0.7	0.0
J20	7/ 3	57°-50'	169°-59'	Y34620 Z49878	41	1.3	0.0	0.0	1.4	0.0	1.4	0.0
J21	7/ 6	58°-01'	170°-19'	X18520 Y34497	40	1.8	0.0	1.3	0.0	0.0	1.3	0.0
J21	7/ 7	57°-51'	170°-35'	X18505 Z34626	42	3.6	0.0	0.0	0.0	0.0	0.0	0.0
J22	7/ 7	58°-00'	170°-58'	Y34503 Z49934	50	3.4	0.0	0.7	0.7	0.0	1.4	0.0
J23	7/ 9	57°-58'	171°-35'	X18201 Y34488	53	3.2	0.0	1.8	9.3	0.6	11.7	5.0
J24	7/ 9	58°-00'	172°-13'	X17991 Z50026	59	3.0	0.0	1.9	1.3	0.6	3.7	16.7
J25	7/19	58°-00'	172°-53'	X17765 Y34343	59	3.5	169.8	35.9	18.7	0.7	225.1	0.3
J26	7/19	57°-58'	173°-28'	X17559 Y34297	64	3.5	649.8	103.7	34.6	0.0	788.0	0.0
K03	6/28	58°-19'	166°-33'	Y33791 Z48562	26	3.3	0.7	0.0	0.0	0.0	0.7	0.0
K04	6/16	58°-20'	165°-55'	Y33673 Z48320	75	1.2	0.0	0.6	0.0	0.0	0.6	0.0
K19	7/ 4	58°-18'	169°-07'	Y34190 Z49428	37	2.0	0.0	2.4	0.0	0.0	2.4	0.0
K22	7/ 7	58°-20'	171°-01'	Y34268 Z49818	48	2.7	0.0	4.1	0.7	0.0	4.8	0.0
K23	7/ 9	58°-20'	171°-38'	X18143 Y34277	52	3.3	0.0	6.4	3.5	1.7	11.6	15.0
K24	7/10	58°-20'	172°-18'	X17942 Z49936	58	3.2	0.0	5.7	6.4	0.0	12.2	0.0
K25	7/19	58°-21'	172°-56'	X17739 Y34145	60	3.2	12.3	6.7	3.6	0.0	22.6	0.0
K26	7/21	58°-20'	173°-35'	X17524 Y34092	63	3.3	324.5	110.7	25.3	3.2	463.7	0.7
K27	7/21	58°-22'	174°-17'	X17292 Y34012	84	3.7	41.6	28.6	2.8	0.0	73.0	0.0
L04	6/16	58°-40'	165°-55'	Y33488 Z48267	21	1.7	0.0	1.5	0.0	0.0	1.5	0.0
L09	6/15	58°-39'	162°-42'	Y33027 Z47079	13	2.6	0.0	0.6	0.0	0.0	0.6	0.0
L22	7/ 7	58°-40'	171°-05'	X18219 Y34028	47	1.1	0.0	3.3	0.7	0.7	4.6	14.3
L23	7/10	58°-41'	171°-43'	X18060 Y34001	51	2.4	0.0	1.3	2.7	0.0	4.0	0.0
L24	7/10	58°-39'	172°-21'	Z49844 X17890	59	2.6	0.0	13.8	5.0	0.6	19.5	3.2
L25	7/19	58°-38'	172°-58'	X17712 Y33975	61	3.4	0.0	6.0	1.8	0.0	7.8	0.0
L26	7/21	58°-40'	173°-38'	X17503 Y33900	69	3.3	107.0	47.2	16.9	0.0	171.1	0.0
L27	7/21	58°-40'	174°-17'	X17295 Y33853	85	3.4	1550.0	294.7	129.7	23.6	1997.9	1.2
L28	7/28	58°-41'	174°-59'	X17068 Y33784	108	3.5	3.1	1.2	0.0	0.0	4.3	0.0

NOTE: FRE-RECRUIT = 4.3-5.4 IN., WITH LEGAL = GREATER THAN 5.4 IN. WITH

TABLE 6 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRD TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	SMALL PRERECUIT	LEGAL	TOTAL	NUMBER PER MILE TOWED	
											MALES (SEE NOTE)	
L29	7/28	58-40	175-32	X16890 Y33747	74	3.3	1301.9	94.2	15.9	0.7	1412.6	0.0
L30	7/31	58-42	176-18	X16643 Y33672	75	3.4	2119.5	111.6	0.0	0.0	2231.0	0.0
L31	8/ 1	58-41	176-54	X16444 Y33626	75	3.4	773.4	55.4	2.5	0.0	831.3	0.0
M19	7/ 4	58-59	169-10	Y33719 Z49217	29	3.2	0.0	0.0	0.5	0.0	0.5	0.0
M23	7/10	58-58	171-46	X18003 Y33805	48	1.2	0.0	2.3	1.1	0.0	3.4	0.0
M24	7/10	58-59	172-25	X17833 Z49746	55	2.2	0.0	8.2	2.1	0.0	10.3	0.0
M25	7/20	59-01	173-05	X17647 Y33725	58	3.1	0.6	2.5	1.2	0.0	4.3	0.0
M26	7/21	58-55	173-37	X17498 Y33757	65	3.0	8.6	9.8	4.0	0.0	22.6	0.0
M27	7/23	59-02	174-19	X17281 Y33643	68	4.1	1.4	3.4	0.0	0.0	4.8	0.0
M28	7/27	59-02	175-03	X17057 Y33600	71	2.9	11.4	8.4	1.8	0.0	21.6	0.0
M29	7/28	58-57	175-44	X16840 Y33594	72	3.7	31.9	9.6	3.0	0.0	44.5	0.0
M30	7/31	59-01	176-22	X16649 Y33513	75	3.1	0.7	1.4	0.0	0.0	2.1	0.0
M31	8/ 1	58-58	177-00	X16444 Y33491	74	3.1	82.9	18.8	1.3	0.0	103.0	0.0
M32	8/ 1	58-59	177-35	X16267 Y33442	75	3.1	371.8	151.5	13.8	0.0	537.1	0.0
N20	7/ 4	59-19	169-52	Y33521 Z49258	34	1.5	0.0	0.0	0.0	0.6	0.0	0.6
N23	7/10	59-18	171-49	X17940 Y33575	44	0.6	0.0	1.2	1.2	0.6	3.0	19.9
N25	7/20	59-19	173-10	X17597 Y33534	55	1.5	0.0	0.6	0.0	0.0	0.6	0.0
N27	7/23	59-19	174-27	X17238 Y33473	65	2.8	0.0	4.8	0.0	0.0	4.8	0.0
N28	7/27	59-20	175-08	X17036 Y33431	73	3.0	0.0	8.4	2.6	0.0	11.0	0.0
N29	7/28	59-19	175-45	X16841 Y33399	75	2.6	0.0	9.1	0.6	0.0	9.7	0.0
N30	7/31	59-22	176-27	X16648 Y33338	75	2.7	0.0	2.3	0.0	0.0	2.3	0.0
N31	8/ 1	59-18	177-09	X16432 Y33326	84	3.0	18.7	11.2	0.0	0.0	29.9	0.0
O25	7/20	59-40	173-15	X17540 Y33307	52	1.4	0.0	0.6	0.6	0.0	1.1	0.0
O27	7/23	59-40	174-28	X17226 Y33267	63	2.4	1.4	1.4	0.7	0.0	3.5	0.0
O28	7/27	59-39	175-10	X17029 Y33247	69	2.8	0.0	2.3	0.8	0.0	3.0	0.0
O29	7/28	59-40	175-55	X16817 Y33204	75	3.0	0.0	0.6	0.0	0.0	0.6	0.0
O30	7/31	59-40	176-35	X16628 Y33170	74	3.0	0.0	2.9	1.4	0.0	4.3	0.0
O31	8/ 1	59-37	177-11	X16452 Y33167	100	3.5	6.5	12.4	1.3	0.0	20.2	0.0
F27	7/24	60-00	174-34	X17182 Y33064	58	1.8	0.0	0.6	0.0	0.0	0.6	0.0
F28	7/27	60-00	175-19	X16983 Y33042	64	2.5	0.0	1.3	0.0	0.0	1.3	0.0
F29	7/28	59-57	175-57	X16812 Y33053	72	2.5	0.0	1.3	0.0	0.0	1.3	0.0
F30	7/31	60-02	176-44	X16603 Y32977	77	3.0	0.0	0.7	0.0	0.0	0.7	0.0
F31	8/ 1	59-57	177-14	X16461 Y32999	75	2.0	0.0	0.6	0.0	0.0	0.6	0.0

NOTE: PRE-RECRUIT = 4.3-5.4 IN. WIDTH; LEGAL = GREATER THAN 5.4 IN. WIDTH

TABLE 7 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE OFILIO AND HYBRID TANNER CRAB WERE TAKEN

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)			NUMBER PER MILE TOWED
								SMALL	FREERECruit	LARGE	
A02	6/19	55--00			166--56	Y34824	Z48679	87	3.9	0.0	2.9
A03	6/26	55--00			166--20	X18284	Z48479	78	4.9	1.5	2.9
A04	6/18	55--00			165--44	Y34652	Z48266	72	4.0	0.0	4.4
A05	6/21	55--00			165--09	Y34565	Z48059	61	0.0	18.4	2.2
B02	6/19	55--19			166--58	Y34798	Z48736	78	4.0	0.0	25.0
B03	6/26	55--18			166--20	X18367	Z48515	73	4.2	1.9	23.4
B04	6/18	55--20			165--47	Y34614	Z48316	67	3.9	0.0	3.2
B05	6/21	55--20			165--09	Y34516	Z48088	61	4.1	0.0	4.8
B06	6/13	55--19			164--35	Y34428	Z47872	58	3.1	0.0	0.0
B07	6/16	55--20			163--58	Y34330	Z47643	40	3.7	0.0	0.0
B08	6/12	55--20			163--25	Y34239	Z47429	30	4.4	0.0	0.0
C01	7/ 1	55--43			167--32	X18416	Y34843	74	4.1	0.7	0.7
C02	6/19	55--39			166--58	Y34759	Z48779	75	3.9	1.6	0.6
C03	6/26	55--38			166--22	X18454	Z48563	70	4.2	1.3	2.7
C04	6/18	55--40			165--48	Y34564	Z48351	66	3.9	0.0	0.0
C05	6/21	55--41			165--09	Y34455	Z48105	60	4.8	2.1	1.4
C06	6/13	55--39			164--34	Y34365	Z47886	55	2.2	0.7	3.3
C07	6/17	55--38			164--00	Y34274	Z47665	52	2.1	0.0	0.0
C08	6/12	55--40			163--24	Y34169	Z47431	46	2.5	0.0	2.9
C09	6/16	55--42			162--49	Y34073	Z47207	28	4.7	0.0	0.0
C18	7/ 1	55--40			168--11	X18357	Z49204	77	3.9	0.7	0.7
D01	7/ 1	56--00			167--36	Y34819	X18499	74	4.0	0.8	3.4
D02	6/19	56--00			167--01	Y34718	Z48839	77	4.0	0.0	4.1
D03	6/26	55--59			166--24	X18534	Z48603	67	3.9	0.0	2.0
D04	6/18	56--00			165--47	Y34502	Z48371	60	3.9	0.6	0.0
D05	6/20	56--00			165--10	Y34410	Z48133	53	1.1	1.3	2.0
D06	6/13	55--59			164--35	Y34299	Z47903	53	1.7	0.6	13.5
D07	6/17	56--00			164--00	Y34196	Z47675	49	2.0	0.0	0.0
D08	6/12	56--00			163--23	Y34094	Z47432	50	2.7	0.0	0.7
D09	6/16	56--01			162--48	Y33995	Z47201	42	3.2	0.0	0.7
D10	6/ 8	56--00			162--13	Y33909	Z46974	40	3.0	0.0	0.0
E01	7/ 1	56--20			167--38	X18587	Z47722	70	3.7	4.7	8.7
E02	6/19	56--19			167--00	Y34196	Z47675	65	2.5	1.4	7.6
E03	6/26	56--19			166--24	X18605	Z48631	55	2.6	3.4	42.5
E04	6/18	56--20			165--47	Y34429	Z48390	52	2.1	0.6	3.4
E05	6/20	56--20			165--11	Y34319	Z48153	49	1.7	7.4	2.1
E06	6/13	56--19			164--34	Y34217	Z47908	50	1.8	0.0	0.0
E07	6/17	56--18			163--59	Y34117	Z47676	47	2.3	0.0	14.4
E08	6/11	56--20			163--23	Y34009	Z47437	48	1.4	0.0	0.6
E09	6/16	56--21			162--47	Y34429	Z48390	42	2.7	0.0	0.6
E10	6/ 8	56--19			162--12	Y33907	Z47197	42	1.7	0.0	2.2
E11	6/13	56--19			161--38	Y33821	Z46961	44	1.7	0.0	11.1
E12	7/ 2	56--20			168--52	X18534	Z49554	69	4.1	0.0	4.2
E13	7/ 8	56--20			170--04	X18405	Z49901	60	4.0	0.0	0.0
F01	7/ 1	56--40			167--39	X18663	Z34703	54	3.2	4.7	1.0

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

TABLE 7 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE OFILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	MALES (SEE NOTE)			TOTAL	PERCENT LARGE
							FEMALES	SMALL PRERECRUIT	LARGE		
NUMBER PER MILE TOWED											
F02	6/29	56-39	167-04	0	54	2.5	0.0	31.3	1.4	0.0	32.6
F03	6/27	56-38	166-25	X18664 Z48650	44	3.5	0.6	58.3	3.1	0.6	62.6
F04	6/17	56-40	165-49	Y34346 Z48409	44	2.0	23.2	45.8	1.3	1.3	71.6
F05	6/20	56-40	165-11	Y34226 Z48157	41	.9	0.0	42.8	0.7	0.0	43.5
F06	6/13	56-39	164-36	Y34127 Z47922	43	.3	0.0	33.0	2.8	0.7	36.5
F07	6/17	56-39	164-00	Y34018 Z47671	41	1.3	0.0	16.0	1.7	0.6	18.2
F08	6/11	56-40	163-22	Y33908 Z47428	42	.3	0.0	18.9	0.7	0.0	19.5
F09	6/16	56-41	162-47	Y33809 Z47189	39	.	0.0	12.5	1.3	0.0	13.7
F10	6/ 8	56-39	162-11	Y33724 Z46949	41	.2	0.0	13.5	1.3	0.0	14.8
F11	6/13	56-39	161-34	Y33630 Z46705	48	2.2	0.0	31.4	2.0	0.7	34.1
F12	6/ 7	56-40	160-59	Y33536 Z46468	38	.7	0.0	1.3	0.0	0.7	2.0
F13	6/ 1	56-40	160-20	Y33447 Z46211	32	.4	0.0	0.8	0.0	0.8	0.0
F18	7/ 1	56-39	168-19	0	60	2.7	848.0	67.9	10.6	0.8	927.2
F19	7/ 2	56-39	168-53	X18635 Z49610	54	3.2	1018.6	165.1	21.8	1.3	1206.9
F21	7/ 8	56-40	170-08	X18543 Z50009	52	4.0	0.0	16.2	10.3	0.7	27.2
F22	7/ 8	56-40	170-44	X18402 Y35126	64	3.9	0.7	1.4	0.0	0.0	2.1
F23	7/ 9	56-39	171-19	X18201 Z50144	65	3.8	2.0	0.0	0.0	0.7	2.7
G01	7/ 1	56-59	167-42	X18713 Y34627	42	3.3	211.2	77.6	0.7	1.3	290.8
G02	6/29	57-00	167-04	0	42	3.0	2.2	57.7	0.0	0.0	59.9
G03	6/27	56-58	166-27	X18709 Z48663	40	2.1	2.6	200.7	3.9	0.0	207.2
G04	6/17	57-00	165-51	Y34246 Z48419	41	1.7	0.0	25.5	2.2	0.0	27.7
G05	6/20	57-01	165-12	Y34124 Z48161	38	.0	1.2	26.2	0.6	0.0	28.0
G06	6/13	56-59	164-36	Y34022 Z47916	40	.2	0.0	11.4	0.7	0.0	12.0
G07	6/17	57-00	163-59	Y33911 Z47670	37	-.2	0.6	15.1	1.2	0.0	16.8
G08	6/11	57-01	163-23	Y33804 Z47428	38	.5	0.7	20.7	2.0	0.7	24.1
G09	6/15	57-01	162-46	Y33704 Z47181	33	.5	0.0	14.1	2.5	1.8	18.4
G10	6/ 8	56-59	162-10	Y33616 Z46937	34	.0	1.5	5.1	2.2	0.0	8.7
G11	6/14	56-58	161-35	Y33528 Z46700	38	.7	0.0	6.0	0.6	1.2	7.7
G12	6/ 7	57-00	160-57	Y33426 Z46445	36	-.3	0.0	1.4	0.0	0.0	1.4
G18	7/ 1	56-51	168-38	Y34863 Z49535	53	2.8	1524.1	141.4	20.7	0.8	1687.0
G18	6/30	57-00	168-20	Y34752 Z49417	40	3.1	245.9	159.6	6.9	0.0	413.1
G19	7/ 2	56-49	169-19	X18675 Z49791	42	3.4	142.5	74.9	6.6	2.0	226.1
G19	7/ 2	56-58	168-59	X18715 Z49678	43	3.5	2.1	73.0	6.4	0.7	82.2
G20	7/ 2	57-00	169-31	X18721 Z49887	35	3.8	87.2	118.3	10.8	1.4	217.8
G20	7/ 2	56-50	169-55	X18648 Z50003	40	4.5	1.4	2.8	2.8	0.7	7.7
G21	7/ 8	56-51	170-26	X18561 Z50120	53	3.7	0.0	0.0	0.0	0.0	0.0
G21	7/ 8	57-00	170-10	X18690 Z50118	36	4.7	0.0	4.9	2.1	0.7	9.1
G22	7/ 8	57-00	170-47	0	53	3.9	12.4	24.8	18.9	2.6	58.7
G23	7/ 9	56-58	171-24	X18264 Y35004	60	3.7	458.5	93.6	13.3	3.2	568.6
G24	7/ 9	57-00	171-58	X18053 Y34909	65	3.8	1636.4	57.4	12.4	1.4	1707.6
G25	7/18	57-00	172-41	X17770 Y34803	66	3.8	3.0	0.8	0.0	1.5	5.3
G26	7/18	57-01	173-16	X17543 Y34715	76	4.1	0.0	0.7	0.0	0.0	0.0
H01	6/30	57-22	167-44	Y34489 Z49155	39	3.0	12.6	174.7	3.6	0.0	190.9
H02	6/29	57-20	167-08	Y 0 Z 0	40	2.5	34.4	1.4	0.0	0.0	38.0
H03	6/27	57-18	166-28	X18738 Z48657	37	2.1	1.3	21.4	0.0	0.0	22.7

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

TABLE 7. DATA FROM THE 1962 EASTERN BERING SEA TRAWL SURVEY WHERE OFILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED).

STATION	DATE	LATITUDE	LONGITUDE	DEPTH FTMS	BOTTOM TEMP. °C	NUMBER PER MILE TOWED	MILES (SEE NOTE)			PERCENT LARGE
							SMALL	FRECROUT	LARGE	
NUMBER PER MILE TOWED										
H04	6/17	57°20'	165°52'	Y34128	245413	39	7	0.0	16.0	0.0
H05	6/20	57°21'	165°14'	Y34010	248161	37	6.0	22.9	3.5	0.7
H06	6/14	57°19'	164°37'	Y34005	247969	39	15	0.7	34.2	4.9
H07	6/17	57°19'	163°59'	Y33799	247659	34	14	7.4	39.4	4.7
H08	6/14	57°20'	163°24'	Y33690	247426	31	13	0.7	34.8	7.0
H09	6/15	57°20'	162°45'	Y33583	247166	26	12	0.0	9.0	0.0
H10	6/9	57°20'	162°09'	Y33495	246920	29	15	0.0	1.3	0.0
H11	6/12	57°19'	161°34'	Y33411	246690	30	15	0.0	3.1	0.0
H12	6/7	57°20'	160°56'	Y33515	246433	36	16	0.0	0.6	0.0
H13	6/1	57°18'	160°17'	Y33236	245175	33	10	0.0	0.7	0.0
H14	6/30	57°10'	168°37'	0	43	34	165.2	21.3	0.0	431.1
H15	6/30	57°20'	168°23'	Y34639	248416	42	34	4.7	32.4	1.3
H16	6/30	57°20'	168°19'	Y34927	248311	39	35	105.1	105.1	0.9
H17	7/3	57°08'	169°01'	Y34783	249671	39	37	7.9	15.0	0.7
H18	7/3	57°18'	169°01'	Y34783	249671	39	37	208.7	51.9	0.0
H19	7/3	57°19'	169°36'	0	0	34	6.2	0.0	26.6	0.0
H20	7/3	57°08'	169°54'	Y38746	260042	25	4.4	0.0	0.0	0.0
H21	7/7	57°21'	170°16'	Y38692	264988	31	5.0	36.9	10.0	47.2
H22	7/8	57°21'	170°52'	0	47	5.8	700.1	446.2	55.6	750.1
H23	7/9	57°18'	171°27'	Y36288	248977	55	34	3443.4	262.2	1.3
H24	7/9	57°19'	172°05'	Y34779	213644	51	37	2682.6	74.2	0.0
H25	7/18	57°20'	173°16'	Y32594	213606	65	25	25.4	0.0	25.4
H26	6/30	57°41'	162°45'	Y34345	241125	37	32	3.0	55.4	0.0
H27	6/29	57°40'	167°05'	0	78	2.1	2.1	43.9	0.0	46.0
H28	6/27	57°44'	165°31'	Y24467	248632	34	13	0.0	22.3	1.2
H29	6/17	57°40'	165°53'	Y33993	248392	36	12	0.0	22.7	0.7
H30	6/19	57°40'	165°14'	Y33875	248132	33	14	2.4	155.8	40.2
H31	6/14	57°39'	164°37'	Y33775	247992	71	4	2.7	351.7	139.9
H32	6/18	57°39'	162°45'	Y33671	247643	52	7	2.2	136.7	63.3
H33	6/19	57°41'	163°56'	Y33562	247402	26	7	0.0	34.9	3.4
H34	6/19	57°41'	163°53'	Y33455	247149	27	0.0	0.0	0.0	0.0
H35	6/15	57°42'	163°45'	Y33455	247149	27	0.0	0.0	0.0	0.0
H36	6/14	57°39'	164°33'	Y33232	246644	21	1.0	0.0	1.3	0.0
H37	6/18	57°39'	163°56'	Y33371	247620	27	7	0.0	0.0	0.0
H38	6/19	57°41'	163°53'	Y33465	247937	40	25	11.2	112.2	3.5
H39	6/15	57°42'	163°53'	Y34614	249497	40	31	24.0	1.9	0.0
H40	6/19	57°40'	163°04'	Y34610	247617	57	27	115.8	127.1	0.9
H41	7/3	57°39'	163°17'	Y34754	249749	58	37	0.0	0.0	0.0
H42	7/3	57°39'	163°03'	Y34808	249921	47	26	527.6	59.7	0.0
H43	7/3	57°39'	163°40'	Y34808	249913	46	29	2.0	72.6	1.3
H44	7/7	57°39'	163°53'	Y34808	249913	46	31	2.0	387.3	0.0
H45	7/7	57°41'	163°17'	Y34807	249749	59	32	224.7	114.1	3.3
H46	7/8	57°39'	163°03'	Y34747	249952	60	34	3275.2	465.8	3.6
H47	7/9	57°40'	163°03'	Y34809	249952	54	32	154.6	18.2	0.1
H48	7/7	57°39'	163°03'	Y34809	249952	50	35	1927.1	19.9	0.0
H49	7/7	57°39'	163°03'	Y34809	249952	50	35	394.3	10.3	0.0
H50	7/1	57°43'	162°33'	Y34809	249952	65	35	246.7	39.5	0.9

NOTE: FRCRT = FISHING RECRUIT; MILE = MILE FROM POINT 42 TO POINT 43.

TABLE 7 DATA FROM THE 1962 EASTERN HERRING SEA TRawl SURVEY WHERE OF ILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	DEPTH	G.F.H. TEMP.	EQUILIBRIUM TEMP.	LARGE	SMALL	NUMBER PER MILE TOWED			PERCENT LARGE	
									FRE	FRE	NOTE		
126	7/13	52°39'	173°52'	817532	Y34464	73	1128.9	16.0	6.0	0.7	1151.6	0.1	
101	6/30	53°02'	167°47'	813739	Z49065	36	8.8	123.4	1.8	0.0	133.9	0.0	
102	6/29	52°59'	167°10'	Y34074	Z48845	37	2.7	60.7	1.3	0.0	64.7	0.0	
103	6/27	52°50'	166°30'	Y33983	Z48500	33	0.0	127.7	19.4	3.3	150.4	2.2	
104	6/17	52°59'	165°54'	Y33848	Z48552	32	1.0	2.0	511.5	60.2	16.0	589.7	2.7
105	6/19	52°50'	165°14'	Y33735	Z48107	27	1.1	3.0	375.8	91.7	11.8	491.2	2.4
106	6/14	52°59'	164°37'	Y33731	Z47858	23	1.7	2.8	948.1	63.6	11.1	1025.5	1.1
107	6/18	57°58'	164°00'	Y32533	Z47625	25	1.3	0.6	43.3	12.6	1.3	57.8	2.2
108	6/10	58°00'	153°23'	Y33424	Z47784	25	0.0	1.3	0.0	0.0	1.3	0.0	0.0
109	6/30	57°50'	168°41'	Y34449	Z48435	40	2.3	23.4	79.4	2.1	0.7	105.6	0.7
110	6/26	58°00'	163°26'	Y34295	Z49506	49	2.2	144.4	86.5	0.7	0.0	231.7	0.0
111	7/3	57°49'	168°18'	Y34552	Z49650	35	5.3	2.5	32.8	1.9	0.0	37.1	0.0
112	7/4	58°00'	168°02'	Y34389	Z49508	39	2.0	4.5	62.2	3.2	0.0	69.9	0.0
120	7/2	58°00'	167°41'	Y34473	Z49699	40	0.4	47.7	39.3	0.7	0.0	88.9	0.0
120	7/3	57°50'	169°59'	Y34620	Z49638	41	1.3	191.3	150.0	1.4	0.0	342.8	0.0
121	7/7	57°51'	170°35'	Y16305	Z34626	42	3.6	803.8	361.0	0.0	0.0	1164.9	0.0
121	7/5	58°01'	170°19'	X18520	Y34497	40	1.6	70.0	216.4	0.0	0.0	286.5	0.0
122	7/2	58°00'	170°58'	Y34503	Z49534	50	3.4	1281.1	227.0	0.0	0.0	1508.1	0.0
123	7/9	57°58'	171°35'	X16201	Y34488	53	3.2	1946.3	299.2	12.2	0.0	2257.7	0.0
124	7/9	58°00'	172°13'	X17991	Z50026	59	3.0	944.7	67.3	17.4	5.6	1035.2	0.5
125	7/19	58°00'	172°53'	X17765	Y34343	59	3.5	149.8	14.2	6.0	3.7	173.7	2.2
126	7/19	57°58'	173°28'	X17559	Y34267	64	3.5	190.2	7.6	2.8	0.7	201.2	0.3
K01	6/30	58°21'	167°50'	Y33892	Z49008	32	1.7	351.1	1270.2	10.3	15.5	1740.1	0.9
K02	6/28	58°21'	167°11'	Y33830	Z48784	29	3.0	0.0	493.4	56.2	24.1	573.7	4.2
K03	6/28	58°19'	166°33'	Y33791	Z48562	26	3.3	0.0	105.3	5.4	6.1	116.9	5.2
K04	6/16	58°20'	165°55'	Y33673	Z48320	75	1.2	23.5	1848.4	88.8	10.4	1971.1	0.5
K05	6/19	58°20'	165°17'	Y33568	Z48084	24	0.7	0.7	240.9	16.9	3.6	264.2	1.4
K06	6/14	58°19'	164°37'	Y33477	Z47839	25	1.1	0.0	33.4	4.7	0.0	38.1	0.0
K13	6/26	58°19'	168°38'	Y34096	Z49226	35	1.3	11.4	90.3	2.0	0.0	103.6	0.0
K19	7/4	58°18'	169°07'	Y34190	Z49428	37	2.0	23.5	436.2	226.6	16.9	730.3	2.3
K20	7/4	58°19'	169°43'	Y34243	Z49586	32	.7	356.2	228.9	0.0	0.0	585.6	0.0
K31	7/2	58°21'	170°23'	X15343	Y34254	60	0.1	80.1	698.2	6.4	0.0	784.7	0.0
K22	7/21	58°20'	171°01'	X14268	Z49818	48	2.7	4.8	82.2	2.0	0.0	89.0	0.0
K23	7/21	58°17'	171°38'	X18143	Y34277	52	3.3	140.8	221.2	9.3	0.0	371.3	0.0
K24	7/10	58°18'	172°48'	X17942	Z49936	58	3.2	15.7	26.5	4.3	0.0	46.5	0.0
K25	7/19	58°21'	172°56'	X17739	Y34145	60	3.2	6.2	2.1	1.0	1.0	12.3	8.3
K26	7/21	58°20'	173°35'	X17524	Y34093	63	3.3	103.7	18.2	3.2	2.4	127.4	1.9
K27	7/21	58°22'	174°17'	X17792	Y34012	64	3.7	2.8	1.9	0.9	0.0	5.5	0.0
L01	6/30	58°41'	167-52'	Y33777	Z48934	25	3.3	7.9	79.8	4.2	1.2	93.1	1.3
L02	6/28	58°40'	167-13'	Y33688	Z48724	23	3.1	0.7	41.5	2.7	0.0	44.8	0.0
L03	6/28	58°39'	166°34'	X18698	Z48501	23	3.0	50.3	1264.3	16.8	0.0	1331.4	0.0
L04	6/14	58°40'	165°55'	Y33468	Z48267	21	1.7	0.0	15.4	3.0	1.5	19.9	7.7
L18	6/26	58°39'	168-29'	Y33879	Z49134	31	2.7	10.7	385.4	55.1	1.4	452.7	0.3
L19	7/4	58°38'	169°08'	Y33961	Z49324	34	1.7	687.3	475.3	56.2	3.6	1222.4	0.3

NOTE; PRE-RECRUIT = 3.7-4.2 IN., WIDTH/LARGE = GREATER THAN 4.2 IN. WIDTH

TABLE 7 DATA FROM THE 1982 EASTERN BEARING SEA TRAWL SURVEY WHERE OFILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LOGAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)			TOTAL	PERCENT LARGE	
								SMALL	PRERECRUIT	LARGE			
NUMBER PER MILE TOWED													
L20	7/ 4	58-39	169-46	Y34006 Z49476	38	.0	257.4	822.4	120.9	18.1	1218.8	1.5	
L21	7/ 6	58-41	170-26	X18352 Y34013	40	.9	912.8	543.9	18.8	0.0	1475.5	0.0	
L22	7/ 7	58-40	171-05	X18219 Y34028	47	1.1	668.5	118.1	5.3	0.7	792.5	0.1	
L23	7/10	58-41	171-43	X18060 Y34001	51	2.4	6.0	155.8	4.7	0.0	166.5	0.0	
L24	7/10	58-39	172-21	Z49844 X17890	59	2.6	0.0	14.4	1.9	1.9	18.2	10.3	
L25	7/19	58-38	172-58	X17712 Y33975	61	3.4	0.0	2.4	0.6	0.0	3.0	0.0	
L26	7/21	58-40	173-38	X17503 Y33900	69	3.3	499.5	90.7	20.0	10.9	621.0	1.8	
L27	7/21	58-40	174-17	X17295 Y33853	85	3.4	919.2	19.2	1.5	0.0	939.8	0.0	
L29	7/28	58-40	175-32	X16890 Y33747	74	3.3	851.2	6.6	0.7	0.7	859.2	0.1	
L30	7/31	58-42	176-18	X16643 Y33672	75	.	1918.7	22.3	0.0	0.0	1941.0	0.0	
L31	8/ 1	58-41	176-54	X16444 Y33626	75	3.4	478.7	5.0	0.0	0.6	484.4	0.1	
M01	6/30	59-00	167-52	Y33563 Z48848	22	3.0	100.9	2361.8	0.0	0.0	2462.6	0.0	
M02	6/28	59-00	167-14	Y33481 Z48651	23	3.0	0.0	2.0	0.0	0.0	2.0	0.0	
M03	6/28	58-58	166-34	X18662 Z48439	19	3.4	1.6	13.3	0.0	0.0	14.9	0.0	
M04	6/16	59-01	165-55	Y33029 Z48211	17	2.2	0.0	0.0	0.0	0.7	100.0	0.0	
M18	6/26	56-59	168-31	Y33654 Z49042	27	2.4	70.7	856.3	13.6	0.0	940.6	0.0	
M19	7/ 4	58-59	169-10	Y33719 Z49217	29	3.2	117.7	398.7	9.4	1.6	527.5	0.3	
M20	7/ 4	58-59	169-50	Y33765 Z49369	36	2.0	229.1	515.6	32.6	3.3	783.9	0.4	
M21	7/ 6	59-01	170-29	Y33770 Z49484	39	.	4	254.4	917.9	99.5	7.4	1279.2	0.6
M22	7/ 7	59-00	171-08	X18146 Y33789	44	.	6	262.2	273.3	30.4	3.8	569.7	0.7
M23	7/10	58-58	171-46	X18003 Y33805	48	1.2	5.7	503.6	86.2	9.1	604.6	1.5	
M24	7/10	58-59	172-25	X17833 Z49746	55	2.2	462.0	58.2	8.2	6.2	534.7	1.2	
M25	7/20	59-01	173-05	X17647 Y33725	58	3.1	26.0	3.1	1.9	0.0	30.9	0.0	
M26	7/21	58-55	173-37	X17498 Y33757	65	3.0	1058.1	208.2	48.3	10.4	1325.0	0.8	
M27	7/23	59-02	174-19	X17281 Y33643	68	4.1	4.1	0.7	0.0	0.0	4.8	0.0	
M28	7/27	59-02	175-03	X17057 Y33600	71	2.9	16.1	7.2	1.2	0.0	24.6	0.0	
M29	7/28	58-57	175-44	X16840 Y33594	72	3.7	38.5	10.4	1.5	5.2	55.6	9.3	
M30	7/31	59-01	176-22	X16649 Y33513	75	.	2.8	1.4	0.0	0.0	4.2	0.0	
M31	8/ 1	58-58	177-00	X16444 Y33491	74	3.1	117.9	60.9	6.5	11.7	196.9	5.9	
M32	8/ 1	58-59	177-35	X16267 Y33442	75	.	991.5	27.5	0.0	0.0	1019.1	0.0	
N18	6/26	59-20	168-33	X13409 Z48942	24	2.2	246.9	1183.4	0.0	0.0	1430.3	0.0	
N19	7/ 4	59-18	169-13	Y33485 Z49119	27	2.5	22.4	387.5	3.7	0.0	413.6	0.0	
N20	7/ 4	59-19	169-52	Y33521 Z49215	34	1.5	149.9	377.7	7.6	3.8	538.9	0.7	
N21	7/ 6	59-21	170-32	Y33526 Z49379	37	1.2	100.7	675.4	56.6	4.0	836.8	0.5	
N22	7/ 7	59-20	171-11	X18074 Y33551	43	.	1.2	145.8	933.3	71.8	0.0	1150.9	0.0
N23	7/10	59-18	171-49	X17940 Y33575	44	.	6	205.9	545.9	93.0	19.1	863.8	2.2
N24	7/10	59-19	172-29	Z49648 X17775	50	1.2	2884.1	208.0	0.7	0.0	3092.8	0.0	
N25	7/20	59-19	173-10	X17597 Y33534	55	1.5	11.4	3.6	0.0	0.0	15.0	0.0	
N26	7/20	59-18	173-48	X17424 Y33515	61	2.3	1467.0	287.0	8.0	4.0	1766.0	0.2	
N27	7/23	59-19	174-27	X17238 Y33473	65	2.8	0.6	0.0	0.6	0.0	1.2	0.0	
N28	7/27	59-20	175-08	X17036 Y33431	73	3.0	643.9	31.7	7.1	5.2	687.9	0.8	
N29	7/28	59-19	175-45	X16841 Y33399	75	2.6	9.7	9.7	1.8	2.4	23.6	10.3	
N30	7/31	59-22	176-27	X16648 Y33338	75	2.7	0.8	3.0	0.0	5.3	9.1	58.3	
N31	8/ 1	59-18	177-09	X16432 Y33326	84	3.0	64.8	1.3	0.0	0.0	66.0	0.0	
002	6/27	59-40	167-18	Y33045 Z48503	18	4.3	0.0	0.7	0.0	0.0	0.0	0.7	

NOTE: PRE-RECRUIT = 3.7-4.2 IN. WIDTH:LARGE = GREATER THAN 4.2 IN. WIDTH

TABLE 7 DATA FROM THE 1982 EASTERN BEARING SEA TRAWL SURVEY WHERE OFFILIO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)			TOTAL	PERCENT LARGE
								SMALL	FRERECUIT	LARGE		
018	6/27	59-39	168-37	Y33182 Z48861	22	2.2	2.1	6.4	0.0	0.0	8.6	0.0
019	7/ 4	59-39	169-15	Y32242 Z49017	26	2.1	0.5	9.1	0.0	0.0	9.7	0.0
020	7/ 4	59-39	169-53	Y33274 Z49149	32	1.5	19.7	726.0	0.5	0.0	925.6	0.0
021	7/ 5	59-40	170-35	Y33291 Z49271	36	0.0	83.7	181.1	4.5	2.3	271.6	0.8
022	7/ 5	59-40	171-14	X18005 Y33308	41	-3	745.1	231.3	10.7	0.0	987.1	0.0
023	7/10	59-38	171-53	X17876 Y33341	42	1.6	41.8	244.1	25.7	1.3	312.9	0.4
024	7/10	59-39	172-33	X17718 Z49549	47	0.0	3.9	8.5	0.0	0.6	13.1	5.0
025	7/20	59-40	173-15	X17546 Y33307	52	1.4	44.2	11.6	2.2	0.0	58.0	0.0
026	7/11	59-40	173-52	X17382 Y33285	59	1.9	64.1	7.8	0.6	0.6	73.2	0.9
027	7/23	59-40	174-28	X17222 Y33267	63	2.4	1.4	4.1	0.7	0.0	6.2	0.0
028	7/27	59-39	175-10	X17029 Y33247	69	2.8	0.8	5.3	0.0	0.0	6.1	0.0
029	7/28	59-40	175-55	X16875 Y33204	75	-	0.0	0.6	0.0	0.0	0.6	0.0
030	7/31	59-40	176-35	X16628 Y33170	74	-	0.0	5.0	8.7	12.3	26.0	47.2
031	8/ 1	59-37	177-11	X16452 Y33167	100	3.5	2.0	2.0	0.0	0.0	3.9	0.0
F18	6/27	59-59	168-39	Y32948 Z48771	20	2.3	1.3	5.3	0.0	0.0	6.7	0.0
F19	7/ 5	59-59	169-18	Y32996 Z48921	25	2.3	330.4	1593.9	0.0	0.0	1924.3	0.0
F20	7/ 5	59-59	169-58	Y33031 Z49053	31	1.5	0.7	11.2	0.0	0.0	11.9	0.0
F21	7/ 5	60-01	170-37	Y33048 Z49168	35	-6	24.8	209.3	0.0	0.0	234.1	0.0
F22	7/ 5	60-00	171-18	X17938 Y33074	39	-1.2	266.1	136.1	0.7	0.0	402.9	0.0
F23	7/10	59-57	171-57	X17815 Y33120	36	1.5	2.2	36.7	19.2	0.6	58.7	0.9
F24	7/10	59-59	172-39	X17658 Z49454	38	0.0	69.6	114.3	1.4	1.4	186.7	0.7
F25	7/12	59-58	173-16	X17512 Y33107	42	-4	10.3	452.3	0.0	0.0	462.6	0.0
F26	7/11	60-00	173-57	X17341 Y33075	55	1.2	13.0	24.5	13.0	1.3	67.1	24.7
F27	7/24	60-00	174-34	X17182 Y33064	58	1.8	13.7	13.7	3.1	1.3	31.8	3.9
F28	7/27	60-00	175-19	X16983 Y33042	64	2.5	7.1	13.6	0.0	1.3	22.0	5.9
F29	7/28	59-57	175-57	X16812 Y33053	72	2.5	12.7	14.0	0.6	0.6	28.0	2.3
P30	7/31	60-02	176-44	X16603 Y32977	77	-	0.0	0.7	1.4	0.7	2.9	25.0
F31	8/ 1	59-57	177-14	X16461 Y32999	75	2.0	0.0	0.6	0.0	0.0	0.6	0.0
Q18	6/27	60-19	168-40	Y32709 Z48680	21	2.9	7.8	34.0	0.0	0.0	41.8	0.0
Q19	7/ 5	60-17	169-20	Y32772 Z48831	23	2.6	25.0	90.8	0.0	0.0	115.7	0.0
Q20	7/ 5	60-19	169-57	Y32793 X18114	29	1.8	124.6	73.0	0.0	0.0	197.5	0.0
Q21	7/ 5	60-20	170-37	Y32815 Z49065	33	-7	4.7	13.0	0.0	0.0	17.8	0.0
Q22	7/ 5	60-20	171-21	X17879 Y32839	38	-6	245.5	62.5	0.6	0.0	308.6	0.0
Q23	7/11	60-22	172-11	X17709 Y32835	32	-1.0	1.3	2.6	0.0	0.0	3.9	0.0
Q25	7/12	60-19	173-23	X17454 Y32883	33	1.0	0.0	2.4	0.0	0.0	2.4	0.0
Q26	7/12	60-20	174-04	X17292 Y32870	51	-5	2.1	23.7	0.7	2.8	29.3	9.5
Q27	7/24	60-19	174-43	X17133 Y32867	56	1.3	84.5	2.8	0.6	0.0	87.9	0.0
Q28	7/27	60-16	175-22	X16970 Y32887	61	2.4	0.0	4.3	3.8	0.0	8.1	0.0
Q29	7/29	60-18	176-03	X16792 Y32855	67	2.6	5.2	64.1	14.9	0.6	84.8	0.8
R30	7/30	60-20	176-45	X16610 Y32818	75	2.1	4.4	1.3	0.0	0.0	6.9	0.0
R23	7/11	60-35	172-06	X17699 Y32684	34	-9	137.2	104.8	0.0	0.0	242.0	0.0
R24	7/11	60-40	172-43	X17565 Y32645	25	1.9	22.3	32.8	0.0	0.0	55.0	0.0
R25	7/12	60-38	173-19	X17438 Y32671	33	2.2	9.2	0.0	0.0	0.0	18.4	0.0
R26	7/11	60-39	174-08	X17255 Z49403	49	1.1	205.2	751.5	0.0	0.0	956.7	0.0
R27	7/24	60-41	174-48	X17098 Y32644	52	.7	746.9	596.5	14.5	0.0	1358.0	0.0

NOTE: FRE-RECRUIT = 3.7-4.2 IN. WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

TABLE 7 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE OPILO AND HYBRID TANNER CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LOGAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)			TOTAL	PERCENT LARGE
								SMALL	PREFRECRUIT	LARGE		
R28	7/26	60-40	175-27	X1693A Y32658	59	2.0	2.9	59.9	21.3	7.8	92.9	8.4
K29	7/29	60-39	176-15	X16750 Y32658	65	2.2	3.6	36.3	18.7	0.0	41.6	0.0
R30	7/30	60-40	176-50	X16602 Y32635	71	12.6	27.4	5.2	2.2	47.4	4.7	0.0
S27	7/24	60-59	174-52	X17069 Y32460	49	.9	83.3	378.8	0.0	0.0	462.0	0.0
S28	7/26	61-00	175-34	X16912 Y32456	56	1.8	35.7	44.8	0.6	0.0	31.1	0.0
S29	7/29	60-58	176-19	X16734 Y32474	62	2.1	7.0	157.4	15.5	2.8	162.8	1.5
S30	7/30	61-01	177-00	X16573 Y32450	66	2.4	17.9	174.5	60.1	5.7	256.1	2.2
T27	7/24	61-20	174-59	X17031 Y32259	46	.0	12.8	165.1	2.0	0.0	179.8	0.0
T28	7/26	61-20	175-49	X16849 Y32367	54	1.1	297.7	163.3	2.1	0.0	463.1	0.0
T29	7/29	61-13	176-20	X16733 Y32290	58	1.6	1419.0	338.9	18.0	0.0	1975.9	0.0
T30	7/30	61-20	177-01	X16581 Y32275	63	.4	549.3	332.1	47.9	3.2	932.5	0.3
U27	7/25	61-40	175-07	X16990 Y32053	47	.0	7.8	48.1	0.0	0.0	55.9	0.0
U28	7/26	61-39	175-51	X16836 Y32068	52	.7	63.2	101.3	1.2	0.0	165.7	0.0
U29	7/29	61-39	176-30	X16700 Y32101	57	1.3	1219.0	254.7	0.0	0.0	1473.7	0.0
U30	7/30	61-41	177-09	X16559 Y32092	62	1.7	18.3	38.1	3.4	2.7	62.5	4.4
V27	7/25	62-02	175-14	X16954 Y31850	44	-1.1	20.8	127.4	0.0	0.0	148.3	0.0
V28	7/26	61-59	175-57	X16804 Y31917	52	.3	22.2	198.8	0.0	0.0	221.0	0.0
V29	7/29	61-57	176-32	X16694 Y31936	55	1.0	150.5	329.2	0.0	0.0	479.7	0.0
W27	7/25	62-20	175-19	X16928 Y31670	43	-1.0	7.2	37.0	0.0	0.0	44.2	0.0
W28	7/26	62-21	176-02	X16790 Y31695	48	.5	147.6	385.7	0.0	0.0	533.5	0.0
X27	7/25	62-37	175-30	X16884 Y31522	43	-.7	23.6	114.9	0.0	0.0	138.5	0.0

NOTE: PREFRECRUIT = 3.7-4.2 IN., WIDTH; LARGE = GREATER THAN 4.2 IN. WIDTH

TABLE 8 DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE KOREAN HAIR CRAB WERE TAKEN

STATION	DATE	LATITUDE	LONGITUDE	LORAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)	NUMBER PER MILE TOWED			PERCENT LARGE	
									SMALL	PRERECRUIT	LARGE		
E07	6/16	55-20	163-58	Y34330 Z47643	40	3.7	0.0	0.0	3.1	5.6	8.7	64.3	
E08	6/12	55-20	163-25	Y34239 Z47429	30	4.4	0.0	0.0	0.0	0.7	0.7	100.0	
C07	6/17	55-38	164-00	Y34274 Z47665	52	2.1	0.0	0.0	0.0	0.7	0.7	0.0	
C08	6/12	55-40	163-24	Y34169 Z47431	46	2.5	0.0	0.0	0.0	1.3	1.3	100.0	
H10	6/ 8	56-00	162-13	Y33909 Z46974	40	3.0	0.0	0.0	1.3	2.0	3.3	0.0	
E02	6/19	56-19	167-00	Y34657 Z48864	65	2.5	0.0	0.0	0.0	0.0	0.7	100.0	
E07	6/17	56-18	163-59	Y34117 Z47676	47	2.3	0.0	0.0	0.0	0.6	0.6	100.0	
E10	6/ 8	56-19	162-12	Y33821 Z46961	44	1.7	0.0	0.0	0.7	0.7	1.3	49.7	
E11	6/13	56-19	161-38	Y33735 Z46734	35	1.	0.0	0.0	0.7	0.7	0.7	0.0	
E12	6/ 7	56-20	161-00	Y33634 Z46481	29	2.1	0.7	0.0	0.0	0.0	0.7	0.0	
E16	7/ 1	56-20	168-15	0	0	85	4.0	0.0	0.0	0.7	0.0	0.7	0.0
F10	6/ 8	56-39	162-11	Y33724 Z46949	41	1.2	0.7	0.0	0.0	0.7	1.3	50.0	
F11	6/13	56-39	161-34	Y33630 Z46705	48	2.2	0.0	0.0	0.0	2.0	2.0	100.0	
F12	6/ 7	56-40	160-59	Y33536 Z46468	38	1.7	0.7	0.0	0.0	0.0	0.7	0.0	
F19	7/ 2	56-39	168-53	X18635 Z49610	54	3.2	0.0	0.0	0.0	0.6	0.6	100.0	
F20	7/ 2	56-39	169-30	X18610 Z49826	44	4.6	0.0	0.0	0.0	1.3	6.0	7.4	
F24	7/ 9	56-40	171-58	X17911 Y34992	71	4.1	0.0	0.0	0.7	0.0	0.7	0.0	
G05	6/20	57-01	165-12	Y34124 Z48161	38	0	0.0	0.0	0.0	0.6	0.6	100.0	
G08	6/11	57-01	163-23	Y33804 Z47428	38	5	0.0	0.0	0.0	0.7	0.7	100.0	
G09	6/15	57-01	162-46	Y33704 Z47181	33	5	0.0	0.0	0.0	0.6	0.6	100.0	
G11	6/14	56-59	161-35	Y33528 Z46700	38	7	0.6	0.0	0.0	0.6	1.2	50.0	
G18	6/30	57-00	168-20	Y34752 Z49417	40	3.1	0.0	0.0	0.0	0.7	0.7	100.0	
G18	7/ 1	56-51	168-38	Y34863 Z49535	53	2.8	0.0	0.0	0.0	0.0	0.0	100.0	
G20	7/ 2	57-00	169-31	X18721 Z49887	35	3.8	0.0	0.0	0.7	7.2	8.7	83.3	
G20	7/ 2	56-50	169-55	X18648 Z50003	40	4.5	0.0	0.0	0.0	10.5	10.5	87.2	
G21	7/ 8	57-00	170-10	X18690 Z50118	36	4.7	0.0	0.0	3.5	10.5	13.9	75.0	
G21	7/ 8	56-51	170-26	X18561 Z50120	53	3.7	0.0	0.0	0.0	0.7	0.7	100.0	
H01	6/30	57-22	167-4	Y34489 Z49155	39	3.0	0.0	0.0	0.0	1.8	1.8	100.0	
H08	6/11	57-20	163-24	Y33690 Z47420	31	3	0.0	0.0	0.0	0.7	0.7	100.0	
H09	6/15	57-20	162-46	Y33588 Z47166	26	7	0.0	0.0	0.0	0.6	0.6	100.0	
H12	6/ 7	57-20	160-56	Y33315 Z46433	36	6	0.7	0.0	0.0	1.3	2.0	66.8	
H18	6/30	57-20	168-23	Y34639 Z49416	42	3.4	0.0	0.0	0.0	1.3	2.0	66.8	
H18	6/30	57-10	168-37	0	43	3.4	0.0	0.0	0.0	2.8	2.8	100.0	
H19	7/ 3	57-18	169-01	Y34768 Z49671	39	3.7	0.0	0.0	3.2	10.3	13.4	76.5	
H19	7/ 3	57-08	169-19	Y34927 Z49811	39	3.5	0.0	0.0	0.0	3.7	3.7	100.0	
H20	7/ 3	57-19	169-36	0	34	2.2	0.0	0.0	0.0	1.9	1.9	100.0	
H20	7/ 3	57-08	169-54	X18746 Z50042	25	4.4	2.8	0.0	5.6	16.7	25.1	66.7	
H21	7/ 7	57-21	170-16	X18692 Y34988	31	5.0	0.7	0.0	0.7	10.0	11.4	87.5	
I01	6/30	57-41	167-45	Y34348 Z49122	37	3.2	0.0	0.0	0.0	3.6	3.6	100.0	
I03	6/27	57-44	166-31	Y34087 Z48638	36	1.3	0.0	0.0	0.0	0.6	0.6	100.0	
I04	6/17	57-40	165-53	Y33993 Z48392	36	2	0.0	0.0	0.0	1.3	1.3	100.0	
I05	6/19	57-40	165-14	Y33875 Z48139	33	0	0.0	0.0	0.0	0.6	0.6	100.0	
I06	6/14	57-39	164-37	Y33775 Z47892	31	4	0.0	0.0	0.0	0.7	0.7	100.0	
I18	6/30	57-40	168-25	Y34485 Z49376	40	2.5	0.0	0.0	1.4	3.5	4.9	71.5	
I18	6/30	57-30	168-38	Y34614 Z49492	40	3.1	0.0	0.0	0.0	5.2	5.2	100.0	

NOTE: PRE-RECRUIT = 3.0-3.5 IN. WIDTH; LARGE = GREATER THAN 3.5 IN. WIDTH

TABLE B DATA FROM THE 1982 EASTERN BERING SEA TRAWL SURVEY WHERE KOREAN HAIR CRAB WERE TAKEN (CONTINUED)

STATION	DATE	LATITUDE	LONGITUDE	LOGAN C	DEPTH FTMS	BOTTOM TEMP	FEMALES	MALES (SEE NOTE)			NUMBER PER MILE TOWED
								PRERECruit		LARGE	
								SMALL	TOTAL	PERCENT LARGE	
I19	7/ 3	57-29	169-17	Y34754	249742	38	3.7	0.0	1.9	17.7	19.6
I19	7/ 3	57-40	169-04	Y34610	Z49617	37	2.7	0.0	0.6	5.6	6.2
I20	7/ 3	57-39	169-40	Y34708	Z49818	40	2.9	0.0	0.0	1.3	1.3
I20	7/ 3	57-29	169-58	Y34868	Z49970	42	2.6	0.0	0.0	0.0	0.0
J01	6/30	58-02	167-47	X18726	Z49065	36	2.1	0.0	0.0	0.9	0.9
J02	6/29	57-59	167-10	Y34074	Z48845	37	1.3	0.0	0.0	0.7	0.7
J03	6/27	57-59	166-30	Y33963	Z48600	33	1.3	0.0	0.0	0.7	0.7
J04	6/17	57-59	165-54	Y33848	Z48362	32	1.0	0.0	0.0	1.3	1.3
J05	6/19	58-00	165-14	Y33725	Z48107	27	1.1	0.0	0.0	2.1	2.1
J06	6/14	57-59	164-37	Y33631	Z47868	26	.7	0.0	0.0	0.7	0.7
J07	6/18	57-58	164-00	Y33533	Z47625	25	1.3	0.0	0.0	0.6	0.6
J18	6/30	57-50	168-41	Y34440	Z49435	40	2.3	0.0	0.0	0.0	0.0
J18	6/26	58-00	168-26	Y34295	Z49306	40	2.2	0.0	0.0	2.1	2.1
J19	7/ 4	58-00	169-02	Y34389	Z49508	38	2.0	0.0	0.0	2.6	2.6
J19	7/ 3	57-49	169-18	Y34552	Z49650	35	3.3	0.0	0.4	1.9	2.5
J20	7/ 4	58-00	169-41	Y34473	Z49699	40	2.4	0.0	0.0	0.7	100.0
J20	7/ 3	57-50	169-59	Y34620	Z49836	42	3.6	0.0	0.0	0.0	0.0
K01	6/30	58-21	167-50	Y33982	Z49008	32	1.7	0.0	0.0	0.7	100.0
K02	6/28	58-21	167-11	Y33880	Z48784	29	3.0	0.0	0.0	1.3	1.3
K03	6/28	58-19	166-33	Y33791	Z48562	26	3.3	0.0	0.0	1.4	1.4
K04	6/16	58-20	165-55	Y33673	Z48320	75	1.2	0.6	0.0	1.3	50.0
K05	6/19	58-20	165-17	Y33568	Z48084	24	.7	0.0	0.0	0.7	0.7
K06	6/14	58-19	164-37	Y33477	Z47839	25	1.1	0.0	0.0	0.7	100.0
K18	6/26	58-19	168-28	Y34096	Z49226	35	1.3	0.0	0.0	0.0	0.0
K19	7/ 4	58-18	169-07	Y34190	Z49428	37	2.0	0.0	0.0	0.6	100.0
L01	6/30	58-41	167-52	Y33770	Z48934	25	3.3	0.0	0.6	3.0	3.6
L02	6/26	58-40	167-13	Y33688	Z48724	23	3.1	0.0	0.0	0.7	100.0
M01	6/30	59-00	167-52	Y33563	Z48848	22	3.0	0.0	0.0	0.6	100.0
M03	6/28	58-58	166-34	Y18662	Z48439	19	3.4	0.0	0.5	0.0	0.0
M18	6/26	58-59	168-31	Y33654	Z49042	27	2.4	0.0	0.0	0.7	100.0
M19	7/ 4	58-59	169-10	Y33719	Z49217	29	3.2	0.0	0.0	1.0	1.0
N01	6/29	59-21	167-55	X18529	Y33528	21	2.8	0.0	0.0	0.6	100.0
N18	6/26	59-20	168-33	Y33409	Z48942	24	2.2	0.7	0.0	1.3	50.0
N19	7/ 4	59-18	169-13	Y33485	Z49119	27	2.5	0.5	0.0	1.0	1.5
P19	7/ 5	59-59	169-18	Y32996	Z48921	25	2.3	0.6	0.0	0.6	66.8
P21	7/ 5	60-01	170-37	Y33048	Z49168	35	2.6	0.0	0.0	0.8	100.0
P23	7/10	59-57	171-57	X17815	Y33120	36	1.5	0.6	0.0	1.1	50.0

NOTE: PRE-RECRUIT = 3.0-3.5 IN. WIDTH; LARGE = GREATER THAN 3.5 IN. WIDTH

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