Northwest and
Alaska
Fisheries Center

National Marine
Fisheries Service

US DEPARTMENT OF COMMERCE

NWAFC PROCESSED REPORT 88-23

REPORT TO INDUSTRY ON THE 1988 EASTERN BERING SEA CRAB SURVEY

OCTOBER 1988



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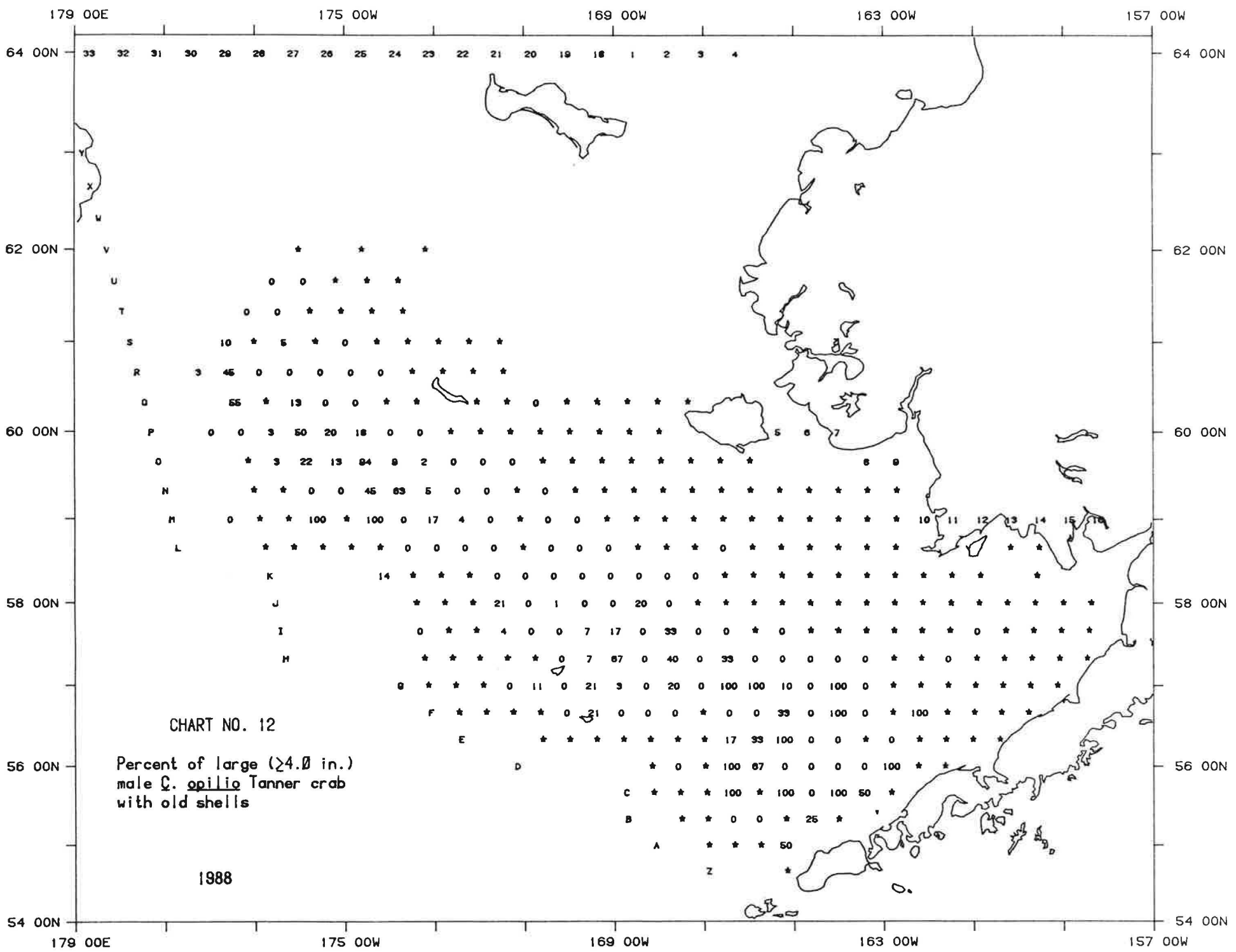
ADDENDUM TO 1988 NMFS CRAB SURVEY REPORT

Distribution of Oldshell Male C. opilio

Older crabs molt less often, and may skip one or more annual molts. Such crabs often exhibit scratch marks, scars or discoloration, and may be covered with barnacles or other growth. Fishermen and processors are concerned because these crab are not marketable. For this reason, the abundance and distribution of such oldshell crab were determined from the 1988 NMFS survey data. For large male crabs ≥ 4 in carapace width, the estimated abundance of oldshells is 2.0 million crabs (2.4 million lbs) in the Eastern District, and 3.3 million crabs (4.2 million lbs) in the Western District, for a total of 5.3 million crabs (6.6 million lbs). These amounts constitute only 1.7% and 6.6% of large male crabs in the Eastern and Western Districts, respectively, or 3.2% of all large male crabs. Chart 12 (on reverse) shows the distribution of oldshell crabs as a percentage of large male crabs by station. This figure should be compared to Chart 7. High percentages occurred east of long 167° W, low percentages occurred around the Pribilof Islands, and moderate values occurred west and southwest of St. Matthew Island. Higher percentages generally correspond with lower abundance of large male crabs.

Bitter Crab Disease

Bitter crab disease was described in 1985 and 1986 from bairdi Tanner crabs in southeastern Alaska by Dr. Theodore Meyers and his co-workers at the ADF&G pathology laboratory. The disease causes cooked meat to be soft or chalky, with a bitter, aspirin-like aftertaste, and was first noticed by quality control workers during processing. It was found during 1987 and 1988 in eastern Bering Sea opilio by ADF&G biologists while examining landings and deadloss. The disease is not harmful to humans but can cause mass mortalities in crabs. Bitter crab is caused by a parasitic dinoflagellate found in blood and tissue. Infected crab are lethargic and have a pinkish, almost parboiled appearance. Blood and tissues become milky and the underside of the body has a dirty white, chalky color rather than being slightly translucent. Diseased crab should not be released, dead or alive, away from the area of capture. Bitter crab are best destroyed by boiling or burning. Less than 1% of opilio on the commercial grounds were found to have the disease during the 1988 survey but fairly high incidence (>10%) was found in parts of Norton Sound and the northern Bering Sea. The ADF&G and NMFS are conducting research on the disease. Further information is available at local ADF&G offices.


179 00E
175 00W
169 00W
163 00W
157 00W
64 00N
62 00N
60 00N
58 00N
56 00N
54 00N
CHART NO. 12
Percent of large (≥4.0 in.)
male C. opilio Tanner crab
with old shells
1988

Northwest and Alaska Fisheries Center
Processed Report 88-23

REPORT TO INDUSTRY ON THE

1988

EASTERN BERING SEA

CRAB SURVEY

by

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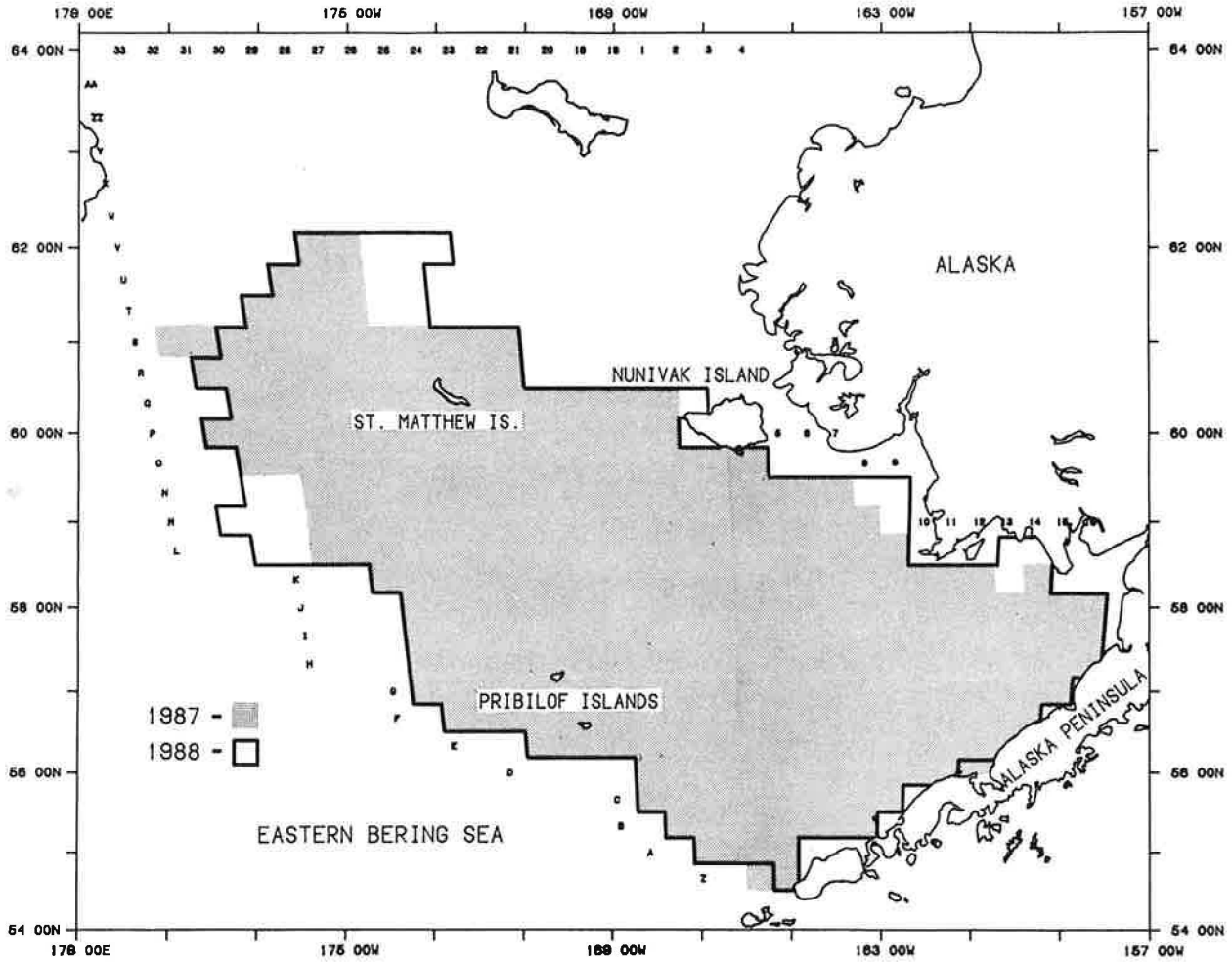


FIGURE 1. NMFS eastern Bering Sea crab survey area in 1987 and 1988.

The 1988 Eastern Bering Sea Survey

An annual trawl survey is conducted in the eastern Bering Sea (EBS) by the National Marine Fisheries Service 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 are also used as part of the basis for management decisions. Red king crab (*Paralithodes camtschatica*), blue king crab (*P. platypus*), hair crab (*Erimacrus isenbeckii*), and two species of Tanner crab (*Chionoecetes bairdi* and *C. opilio*), are of primary interest. Golden king crab were not surveyed. Information on groundfish resources is available from the Northwest and Alaska Fisheries Center, 7600 Sand Point Way NE, BIN C15700, Seattle, Washington 98115.

Survey Area and Methods

The 1988 EBS crab survey consisted of 396 successful trawl tows and covered an area of approximately 141,100 square nautical miles. The 1988 survey area included slightly more area than that of 1987 (Fig. 1).

The survey was conducted aboard two chartered vessels, the FV Ocean Hope 3 and the University of Washington's RV Alaska between June 1 and August 6. Methodology was similar to that of previous surveys in that most tows were made at the centers of squares defined by a 20 x 20 nautical mile grid. Near St. Matthew Island and the Pribilofs, additional tows were made at the corners of squares.

Both vessels fished an eastern otter trawl with an 83 ft headrope and a 112 ft footrope. Measured wing spread on this trawl has ranged from 47 - 58 feet. In 1987 and 1988 wing spread measurements were made during the majority of survey tows, with trawl mensuration gear. Analysis of these data is not yet complete. An effective width of 50 feet was used, based on previous data analysis. 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. A tracing of the surface to bottom temperature profile was taken with an expendable bathythermograph at almost all stations.

In addition to the regular survey, 7 additional stations were towed at 10-mile intervals in water 25-30 fm deep, along the coast of the Alaska Peninsula between 160° and 162° W. long., to assess the abundance of king crab in inshore waters. Also, 44 additional tows were made at stations C08 and D08 to compare 2 different trawls; those data are not discussed in this report. Procedures for estimating abundance were identical to those of previous years. Population estimates were derived from the trawl data using the "area-swept" technique. First, the density of crabs (crabs per square nautical mile) at each trawl station was computed. Average density was then calculated for several sub-regions, then population estimates were calculated by extrapolating the average density of a given size group over the range of the species (or stock).

The following abbreviations are used in the text: (in) inches, (mm) millimeters, (fm) fathoms, (lb) pounds, (°C) degrees Celsius, (cl) carapace length, and (cw) carapace width.

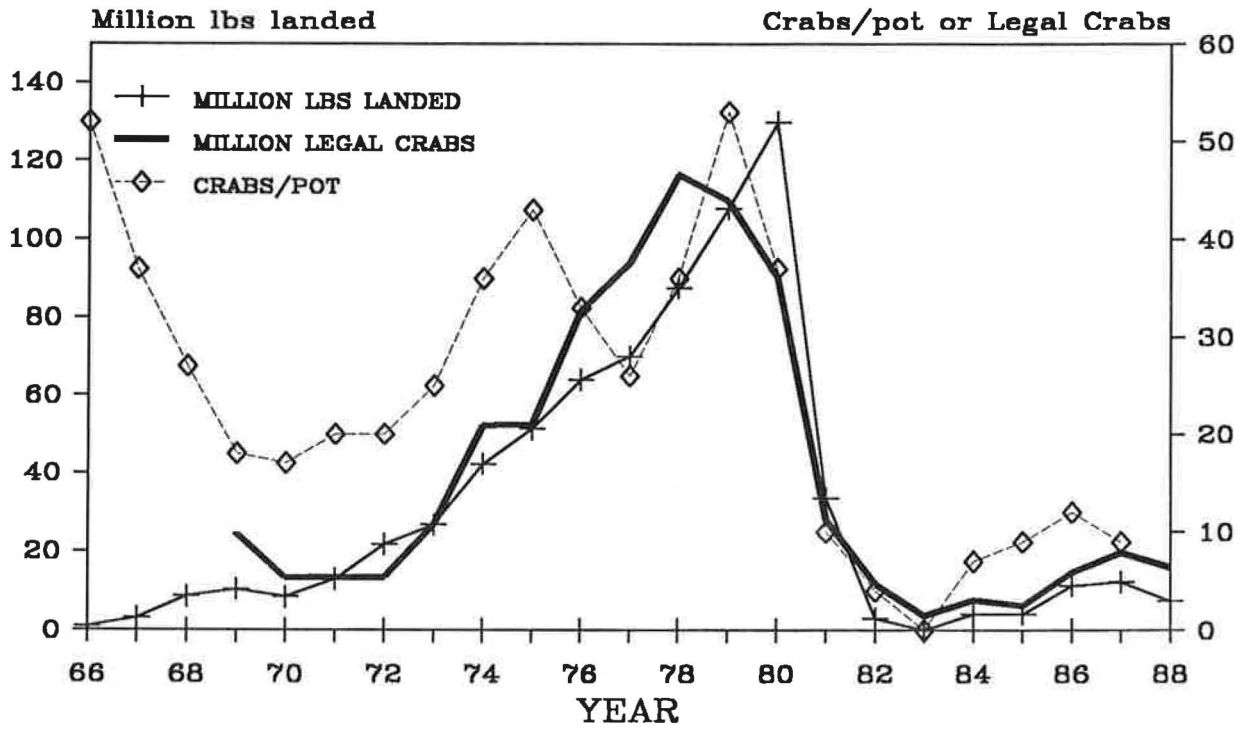


FIGURE 2. U.S. landings in millions of lb, catch-per-unit-of-effort as crabs/pot, and the abundance of legal red king crabs (P. camtschatica) in millions in Bristol Bay, estimated from the NMFS trawl surveys.

Interpreting Tables and Charts

Because of differences in the length of tow between vessels and stations, catches presented in accompanying charts and tables are standardized to the number of crab caught per square nautical mile (rounded to whole numbers on charts). Note that charts published through 1984 presented crabs per mile towed, so are not directly comparable to this report. However, data presented in those reports can be converted to crabs per square mile (approximately) by multiplying by a factor of 124. Charts are based on 20 by 20 nautical mile squares. In cases where more than one tow was made in a square (including corner tows), the average crab density is presented. For this reason, values on the charts may not match exactly the values in Tables 7-11. It is advisable to cross-reference charts and tables 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 Crab Stocks

Red King Crab

Virtually all of the legal sized ($\geq$6.5 in carapace width, cw, or $\geq$135 mm carapace length, cl) male crabs occurred in Bristol Bay, Area T (S of 58°39' N lat. and east of 168° W long.) (Chart 1; Table 7). The 1988 distribution included a band of high density running along the Alaska Peninsula, and north to central Bristol Bay. The highest catch occurred at station C08. A few red king crabs were also found near the Pribilof Islands but their contribution to overall abundance in the EBS is

Table 1. Annual abundance estimates (millions of crabs) for red king crab (*P. camtschatica*) in Bristol Bay and the Pribilof District from NMFS surveys.

	Males				Females			
Size[1](mm)	<110	110-134	≥135	Total	<90	≥90	Total	Grand Total
Width(in)	<5.2	5.2-6.5	≥6.5		<3.5	≥3.5		
1969	41.0	20.3	9.8	71.1	18.3	28.5	46.8	117.9
1970	9.5	8.4	5.3	23.2	4.9	13.0	17.9	41.1
1972[2]	14.1	8.0	5.4	27.5	7.0	12.1	19.1	46.6
1973[3]	50.0	25.9	10.8	86.7	24.8	76.8	101.6	188.3
1974[3]	59.0	31.2	20.9	111.1	37.7	72.0	109.7	220.8
1975	84.9	31.7	21.0	137.6	70.8	58.9	129.7	267.3
1976	70.2	49.3	32.7	152.2	35.9	71.8	107.7	259.9
1977	80.2	63.9	37.6	181.7	33.5	150.1	183.6	365.3
1978	62.9	47.9	46.6	157.4	38.2	128.4	166.6	324.0
1979	48.1	37.2	43.9	129.2	45.1	110.9	156.0	285.2
1980	56.8	23.9	36.1	116.8	44.8	67.6	112.5	229.3
1981	56.6	18.4	11.3	86.3	36.3	67.3	103.6	189.9
1982	107.2	17.4	4.7	129.3	77.2	54.8	132.0	261.3
1983	43.3	10.4	1.5	55.2	24.3	9.7	34.0	89.2
1984	81.8	12.6	3.1	97.6	57.6	17.6	75.1	172.7
1985	13.7	10.1	2.5	26.3	6.9	6.8	13.7	39.9
1986	11.8	12.3	5.9	30.1	4.5	5.4	9.8	39.9
1987	20.1	12.6	7.9	40.6	16.8	18.3	35.1	75.7
1988	8.5	6.4	6.4	21.3	2.7	15.7	18.4	39.7
Limits[4]								
Lower	3.4	5.0	5.1	15.3	0.04	3.6	5.4	20.7
Upper	13.7	7.8	7.6	27.3	5.4	27.7	31.4	58.7
±%	60	22	20	28	98	77	71	48

1 Carapace length (mm).
2 Limited survey in 1971, not used for population estimate.
3 1973 and 1974 estimates considered unreliable.
4 Mean ± 2 standard errors for most recent year.

negligible. Average crab density over the seven extra inshore stations was similar to the overall average for Bristol Bay except that no small (<90 mm cl) females were caught at any of these stations.

Legal male crabs were found between 18 and 56 fm (average 42.7 fm) and from 0.5 to 4.7°C (average 2.4°C). The percentages of legal crab taken at each station (Chart 2) show that legal crab were occasionally found as solitary individuals at the periphery of the stock's distribution.

Commercial catches in Bristol Bay declined along with abundance estimates, from 130 million pounds in 1980 to 3 million in 1982 (Fig. 2). The Alaska Department of Fish and Game (ADF&G) issued an emergency order closing Bristol Bay to king crab fishing in 1983, but the fishery was re-opened in 1984. In 1987, 12.3 million lb were landed with an average catch-per-unit effort (CPUE) of 9 crabs per pot-lift. From 1987 to 1988, the abundance of legal males decreased by 20%, and pre-recruits declined by 47%. The abundance of large females showed little change (Table 1). The 1988 fishery opened on September 25 with a guideline harvest of 7.5 million pounds (range 5.8-9.2), compared to an estimated legal stock of 35.5 million pounds. The fishery closed October 2; landings were 7.4 million lb, according to preliminary statistics (Bill Nippes, ADF&G, 211 Mission Rd., Kodiak, AK 99615, pers. commun., October 1988).

Blue King Crab

This species is found in significant concentrations in the vicinity of the Pribilof Islands and St. Matthew Island (Charts 3 and 4; Table 8). In the Pribilofs area, most crab were found north and east of the islands, as usual. Legal crab (≥6.5 in cw) occurred at temperatures between 1.7 and 3.4°C (average 2.3°C), and at depths between 35 and 44 fm (average 40.5 fm).

The abundance of legal-sized crab (≥6.5 in cw; Table 2) in the Pribilof District was stable from 1978 to 1981, but declined about 50% per year through 1985. The estimated abundance of legal males increased from 1986 to 1987, but declined again in 1988 to a record low level. The overall population, including females, is depressed. The commercial fishery produced about 701,000 pounds in 1987. There is not a clear relationship between the abundance of pre-recruits and later abundance of legals, and the habitat of smaller males is rocky and untrawlable, so no long term forecast can be made. The Pribilofs fishery was not opened in 1988 due to record low levels of legal and pre-recruit males. Relationships between estimated abundance and catch are shown in Fig. 3.

The abundance of pre-recruit (4.3 - 5.5 in cw) and legal (≥5.5 in cw) crab in the St. Matthew Island area (Northern District) declined from 1982-1986, then increased slightly in 1987 (Table 3). Over the past year, abundance of legal and pre-recruit crab showed little change. Females, however, have increased each year since 1986, but estimates are very imprecise. Legal males were found in depths from 23 to 58 fm (average 44.3 fm) and temperatures from -1.5 to 2.9°C (average 0.4°C).

The 1988 fishery opened on September 1 with a guideline harvest of 1.1 million pounds (range 0.7-1.5). Preliminary ADF&G statistics indicate that about 1.3 million pounds were landed by 46 vessels during a four day opening with an average CPUE of about 14 crabs/pot-lift (Ken Griffin, ADF&G, P.O. Box 508, Dutch Harbor, AK 99692, pers. commun., September 1988). The estimated exploitation rate was 41% (by weight) or about 340,000 crabs out of an estimated legal stock of 833,000. In comparison, during 1987, 63 vessels landed 1.1 million pounds or 232,000 crabs for an estimated exploitation rate of 39% and an average CPUE of 8 crabs per potlift. Figure 4 shows that the survey does not predict CPUE very well for this fishery.

Blue king crab: Pribilof District

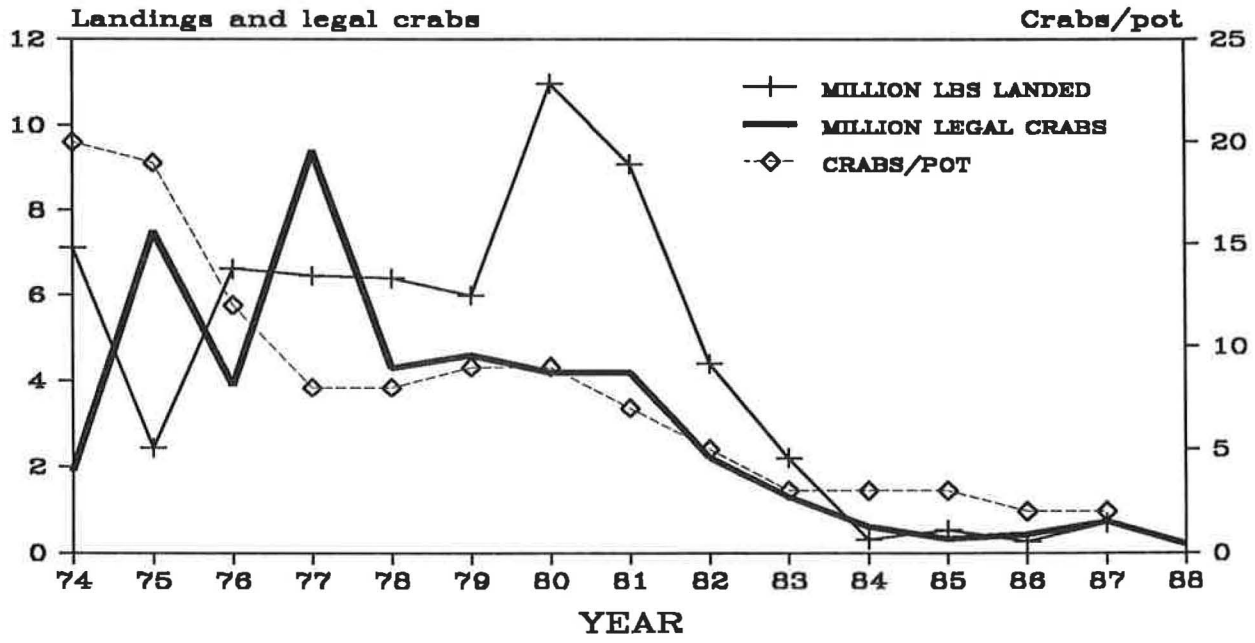


FIGURE 3. U.S. landings in millions of lb, catch-per-unit-of-effort as crabs/pot, and the abundance of legal blue king crabs (P. platypus) in the Pribilof District in millions, estimated from the NMFS trawl surveys.

Blue king crab: Northern District

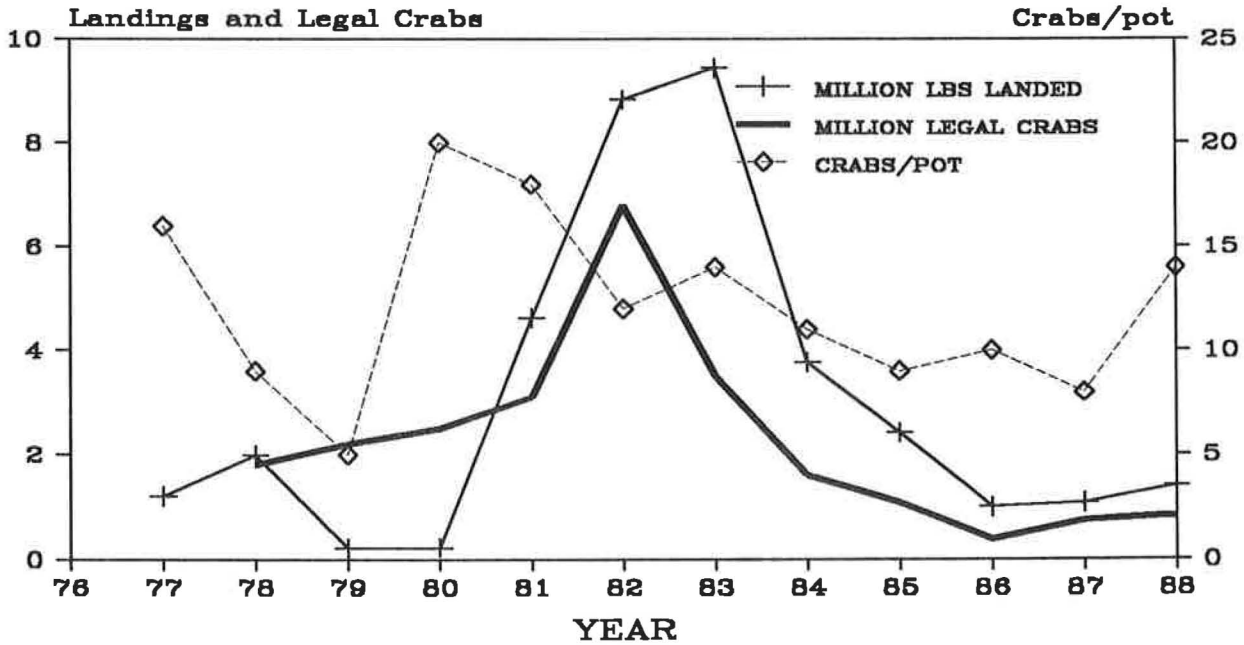


FIGURE 4. U.S. landings in millions of lb, catch-per-unit-of-effort as crabs/pot, and the abundance of legal blue king crabs (P. platypus) in the Northern District in millions, estimated from the NMFS trawl surveys.

Table 2. Annual abundance estimates (millions of crabs) for blue king crab (*P. platypus*) in the Pribilof District from NMFS surveys.

Pribilof District

	Males				Females			
Size[1](mm)	<110	110-134	≥135	Total	<90	≥90	Total	Grand Total
Width(in)	<5.2	5.2-6.5	≥6.5		<3.5	≥3.5		
1974	4.4	3.1	1.9	9.4	0.6	10.9	11.5	20.9
1975	4.1	8.0	7.5	19.6	0.0	8.8	8.8	28.4
1976	10.3	2.1	3.9	16.3	0.4	17.7	18.1	34.4
1977	3.2	2.2	9.4	14.8	2.2	17.5	19.7	34.5
1978	1.2	5.8	4.3	11.3	0.3	35.5	35.8	47.1
1979	6.4	1.5	4.6	12.5	5.2	2.9	8.1	20.6
1980	1.9	1.4	4.2	7.5	0.8	101.9	102.7[2]	110.2
1981	4.8	1.4	4.2	10.4	3.4	11.6	15.0	25.4
1982	1.2	0.7	2.2	4.1	0.7	8.6	9.3	13.4
1983	0.6	0.8	1.3	2.8	0.2	9.2	9.4	12.2
1984	0.5	0.3	0.6	1.3	0.3	3.1	3.4	4.8
1985	0.06	0.16	0.32	0.54	0.18	0.52	0.70	1.24
1986	0.02	0.02	0.43	0.47	0.04	1.86	1.90	2.37
1987	0.57	0.08	0.73	1.38	0.39	0.58	0.97	2.35
1988	1.10	0.0	0.20	1.29	0.77	0.43	1.20	2.49
Limits[3]								
Lower	0.0	0.0	0.03	0.00	0.0	0.05	0.00	0.00
Upper	2.94	0.0	0.36	3.14	2.11	0.81	2.70	5.84
±%	168		86	143	174	88	125	135

1 Carapace length (mm).
2 Female estimates considered unreliable in 1980.
3 Mean ± 2 standard errors for most recent year.

Table 3. Annual abundance estimates (millions of crabs) for blue king crab (*P. platypus*) in the Northern District from NMFS surveys.

	Northern District							
	Males				Females			
Size[1](mm) Width(in)	<105 <4.3	105-119 4.3-5.5	≥120 ≥5.5	Total	<80 <3.2	≥80 ≥3.2	Total	Grand Total
1978	5.6	2.4	1.8	9.8	0.8	0.4	1.2	11.0
1979	4.9	2.3	2.2	9.4	1.7	0.9	2.6	12.0
1980	3.4	2.2	2.5	8.1	0.8	2.2	3.0	11.1
1981	1.2	1.8	3.1	6.3	0.0	0.5	0.5	6.8
1982	3.2	2.6	6.8	12.5	0.4	0.7	1.1	13.7
1983	1.8	1.6	3.5	6.9	0.2	2.4	2.7	9.6
1984	1.4	0.6	1.6	3.6	0.2	0.5	0.7	4.3
1985	0.46	0.35	1.08	1.89	0.08	0.13	0.21	2.10
1986	0.56	0.40	0.38	1.34	0.25	0.06	0.31	1.65
1987	1.07	0.73	0.74	2.53	0.46	0.22	0.68	3.21
1988	1.44	0.65	0.83	2.92	0.90	0.79	1.70	4.62
Limits[2]								
Lower	0.17	0.32	0.52	1.27	0.14	0.18	0.37	1.64
Upper	2.71	0.97	1.14	4.58	1.67	1.41	3.00	7.58
±%	88	50	37	57	85	78	78	65

1 Carapace length (mm), categories reflect smaller average size in the Northern District; 80 mm is the median size at maturity for females.

2 Mean ± 2 standard errors for most recent year.

C. bairdi: Bristol Bay and Pribilofs

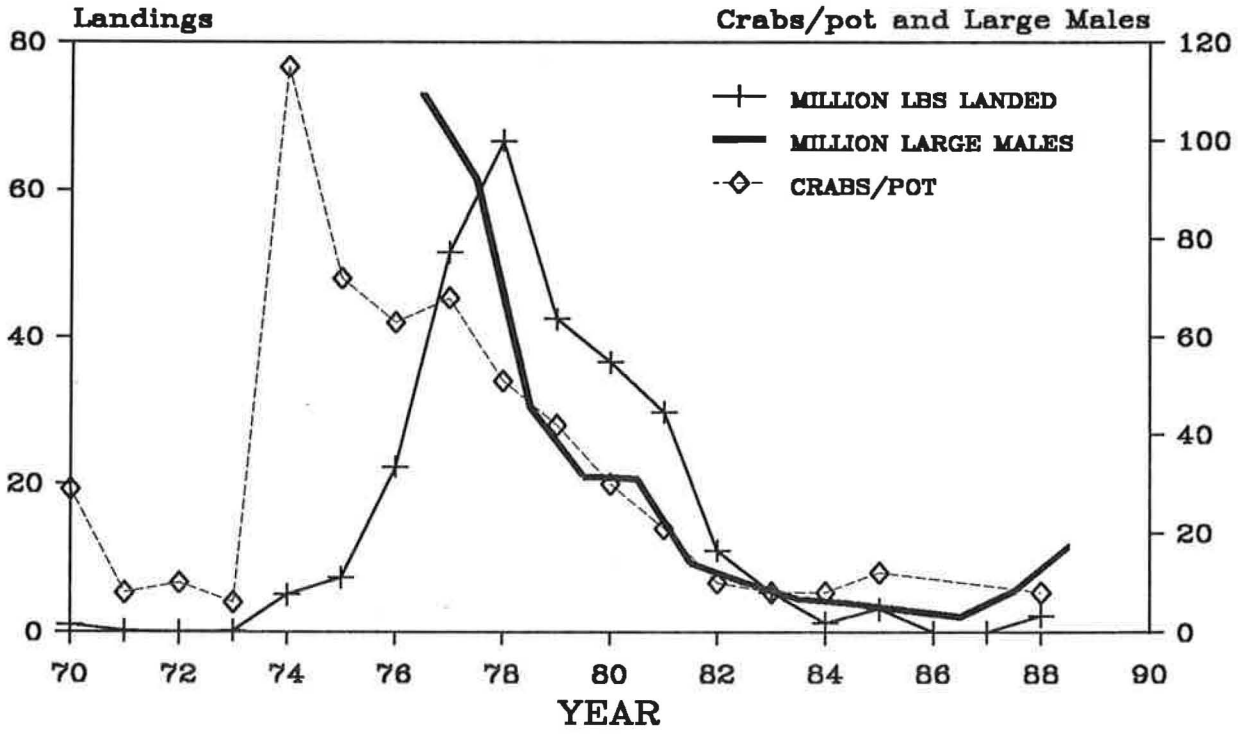


FIGURE 5. U.S. landings in millions of lb, catch-per-unit-of-effort as crabs/pot, and the abundance of large C. bairdi in Bristol Bay and the Pribilof District in millions, estimated from the NMFS trawl surveys. Compare fishery data with previous year's survey estimate.

Distribution and Abundance of Tanner Crabs

C. bairdi

The distribution of legal *C. bairdi* showed relatively high abundance along the north side of the Alaska Peninsula and between the Pribilof Islands with lower densities in between those two areas (Charts 5 and 6; Table 9). The highest concentrations of legal crab were found north of Port Moller where percentages of legals were also highest, and near the Pribilof Islands. Most legal crab were found at 26 to 85 fm (average 43.2 fm) and at temperatures ranging from -0.8 to 4.5°C with an average temperature of 2.6°C.

The abundance of legal (≥5.5 in cw) male *C. bairdi* generally declined from 1975 onward and reached an historic low of 3.1 million crab in 1986 (Table 4). Over the past two years the abundance of legal crab increased by 164% and 144%, respectively, and pre-recruits increased by 53% and 200%, respectively. Recruitment trends and more detailed size-frequency data indicate that legal crab abundance may further improve in the next year.

Landings fell from 67 million pounds in 1978 to 1.2 million in 1984, and 3.2 million pounds in 1985 (Fig. 5). The low abundance of crab in 1985 and 1986 prompted a closure of the fishery in 1986 and 1987. The fishery was reopened in 1988, and about 2.2 million lb were harvested. Guideline harvests for 1989 have not been determined.

Table 4. Annual abundance estimates (millions of crabs) for Tanner crabs (*C. bairdi*) in Bristol Bay and the Pribilof District from NMFS surveys.

	Males				Females			
Size[1](mm) Width(in)	<110 <4.3	110-134 4.3-5.3	≥135 ≥5.3	Total	<84 <3.4	≥85 ≥3.4	Total	Grand Total
1976	180.2	136.6	109.5	426.3	174.7	220.4	395.1	821.4
1977	255.0	116.3	92.1	463.4	328.4	215.8	544.2	1007.6
1978	124.2	81.2	45.6	251.0	116.1	73.3	189.4	440.4
1979	133.1	47.7	31.5	212.3	122.6	42.1	164.7	377.0
1980	453.3	65.0	31.0	549.3	326.9	106.8	433.7	983.0
1981	303.8	24.0	14.0	341.8	324.2	79.1	403.3	745.1
1982	88.8	46.9	10.1	145.8	126.4	83.6	210.0	355.8
1983	146.3	32.0	6.7	185.0	180.1	45.4	225.5	410.5
1984	85.1	21.2	5.8	112.1	107.0	33.4	140.4	252.5
1985	31.1	9.4	4.4	44.9	24.2	15.6	39.8	84.7
1986	110.4	12.9	3.1	126.4	68.2	13.7	81.9	208.3
1987	230.1	19.7	8.3	258.0	193.3	35.5	228.8	486.8
1988	287.3	59.7	17.4	364.4	184.8	81.0	265.8	630.2
Limits[2]								
Lower	189.4	30.3	2.8	248.5	119.6	42.3	181.8	430.3
Upper	385.1	89.1	32.0	480.3	249.9	119.8	349.8	830.1
± %	34	49	84	32	35	48	32	32

1 Carapace length (mm).
2 Mean ± 2 standard errors for most recent year.

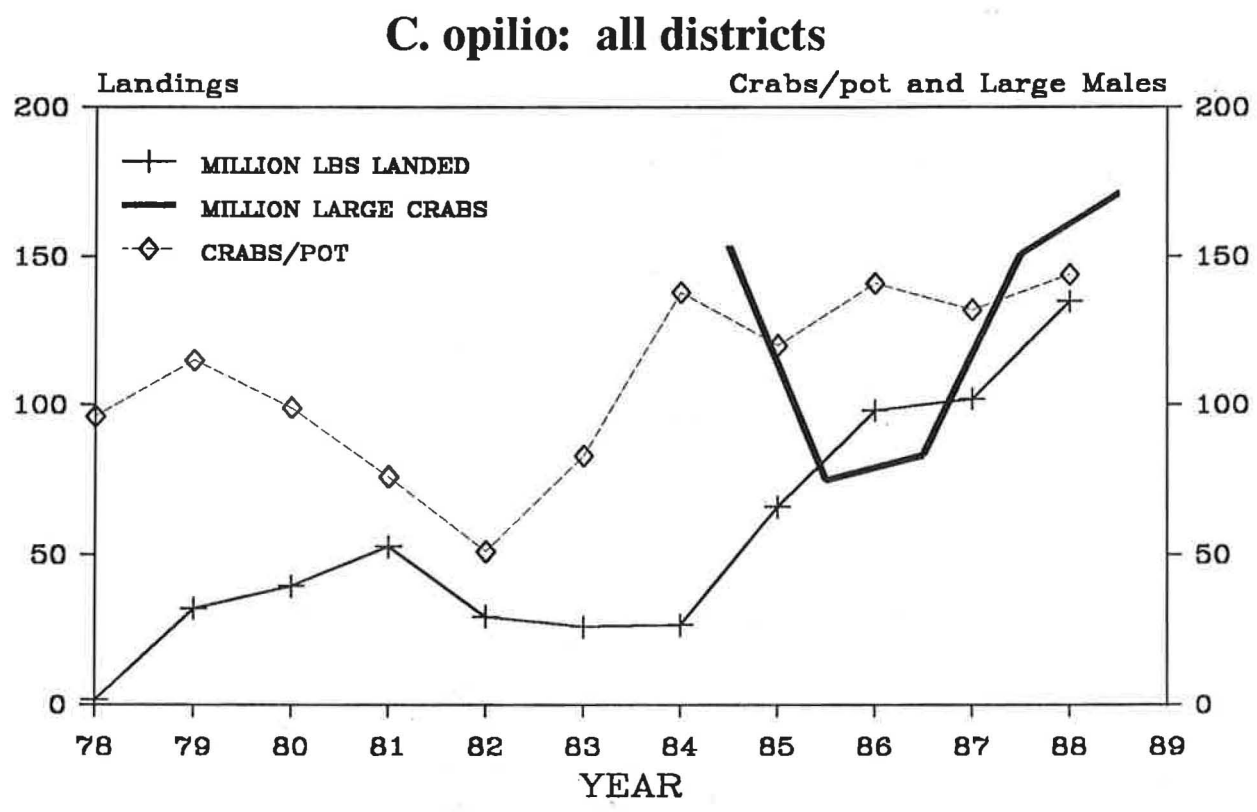


FIGURE 6. U.S. landings in millions of lb, catch-per-unit-of-effort as crabs/pot, and the abundance of large male C. opilio in millions (all districts combined), estimated from the NMFS trawl surveys. Large crabs defined as ≥102 mm carapace width. Compare fishery data with previous year's survey estimate.

C. opilio

Although the legal minimum size limit for *C. opilio* is 3.1 in cw, processors currently prefer a minimum size of 4.0 inches. The distribution of large males (≥4.0 in cw) showed an area of high concentration north of the Pribilof Islands (Charts 7 and 8, Table 10). There were also areas of high abundance south and west of St. Matthew Island. Crab larger than 4.0 inches were taken at depths from 20 to 91 fm (average 51.9 fm), and temperatures from -1.1 to 5.0°C (average 1.0°C). Percentages of exploitable crab (Chart 8) are difficult to interpret because of the close association between the distributions of large and pre-recruit (<4.0 in) size groups.

Combining districts, the abundance of large males increased slightly from the 1987 estimate (Table 5). The abundance of small males (<4.0 in cw) decreased and large females (≥2.0 in cw) showed little change from 1987 levels. Recruitment trends indicate that abundance of large crab may further increase in 1988. Recruitment patterns in this stock are not entirely clear as recruitment evidently occurs both through localized production and by immigration. Approximately 7% of male crabs ≥4.0 in cw were softshell during the survey period as opposed to 16% at this time in 1987 and 46% in 1986, indicating that the period of molting is quite variable.

Since 1980, the distribution of *C. opilio* has shifted to the northwest, and split into two regions of high density. For this reason, new district boundaries were devised in 1987 creating an Eastern and Western District separated at 173° W long.

The 1988 fishery was closed on June 30. Approximately 135 million pounds were landed, the highest on record with CPUE about 144

Table 5. Annual abundance estimates for eastern Bering Sea Tanner crabs (*C. opilio*) from NMFS surveys (millions of crab).

	Males				Females			
Size[1](mm) Width(in)	<102 <3.7	≥102 ≥4.0	≥110 ≥4.3	Total	<50 <2.0	≥50 ≥2.0	Total	Grand Total
1982	*	*	21.7	2073.2	402.6	2255.8	2658.4	4731.7
1983	*	*	22.1	1858.1	673.1	1228.4	1912.6	3759.7
1984	1237.4	153.2	73.9	1390.7	610.5	581.7	1192.2	2582.9
1985	547.8	74.9	40.7	622.6	258.2	123.5	381.7	1004.3
1986	1179.0	83.1	45.9	1262.0	790.6	422.0	1212.5	2474.5
1987	4438.9	150.8	70.0	4589.8	2919.3	2929.3	5848.6	10438.4
1988	3467.2	171.0	90.1	3638.2	1235.3	2322.7	3556.0	7194.2
East(%)[2]	59.1	70.1	75.3	59.7	40.8	70.4	60.2	59.9
Limits[3]								
Lower	2598.7	118.5	53.3	2768.3	772.4	1600.1	2597.7	5366.0
Upper	4335.7	223.5	126.9	4508.2	1698.1	3045.2	4518.2	9026.4
±	25	31	41	24	37	31	27	25

1 Carapace width in mm.
2 Proportion of size group in Eastern District.
3 Mean ± 2 standard errors for most recent year.
* Estimates not available at present time.

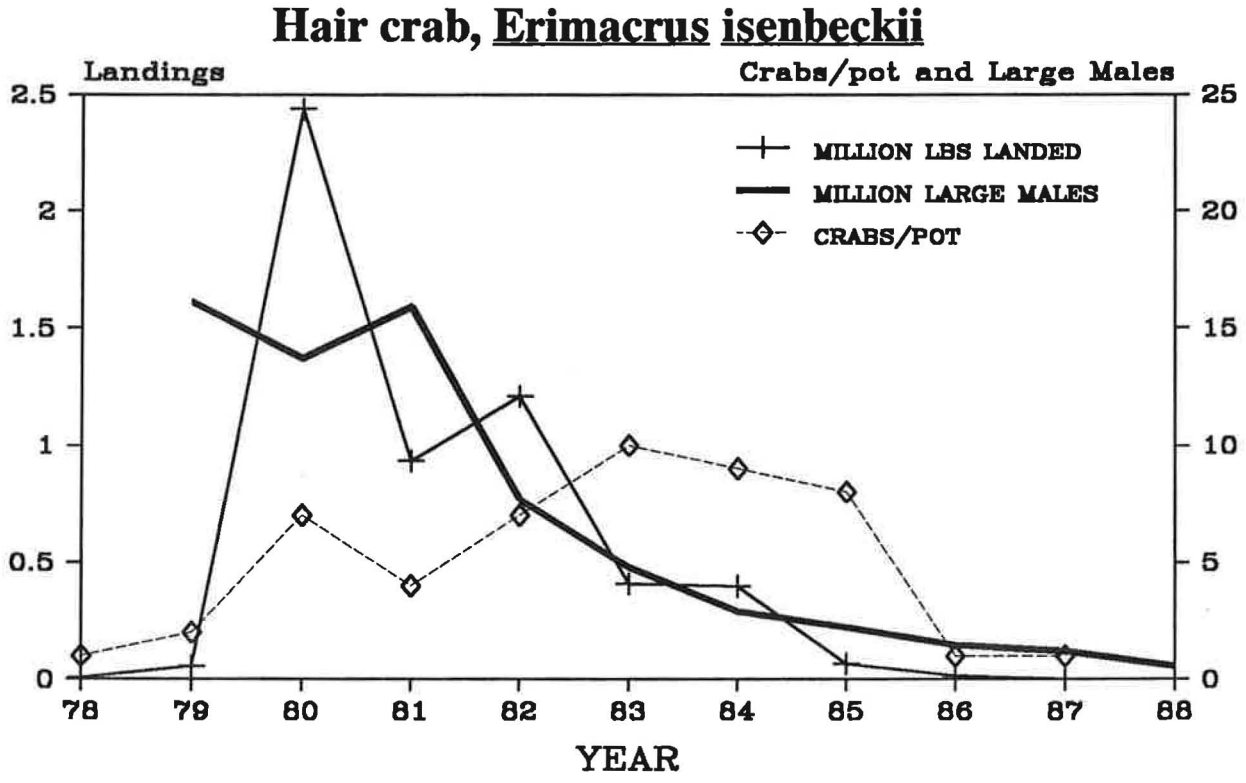


FIGURE 7. U.S. landings in millions of lb, catch-per-unit-of-effort as crabs/pot, and the abundance of large male crab (E. isenbeckii) in millions, estimated from the NMFS trawl surveys. Large crabs defined as ≥90 mm carapace length.

crabs/pot (Fig. 6). Currently there is an estimated 227.5 (± 70.0) million pounds of large males (≥102 mm cw) within the survey area of which about 70% exists in the Eastern district. Relationships between catch rates and population estimates do not track very well for this species (Fig. 6). Guideline harvests for 1989 have not been determined.

Distribution and Abundance of Hair Crab

Large hair crab (≥3.5 inches carapace length, no legal size) are scattered across the continental shelf. In all previous years they were most abundant around the Pribilof Islands, but in 1988 the highest density occurred just north of the Alaska Peninsula (Charts 9 and 10; Table 11). Large hair crab were taken in 20 to 84 fm (average 41.7 fm) and at temperatures of 1.0 to 4.1°C (average 2.5°C). Large males were 100% of the catch in many areas (Chart 10), however, in areas of high abundance they occurred with pre-recruits, small males and females. We have never found many female or small male crab during the survey and hence have little understanding of their distribution.

The abundance of large male hair crab has been declining since 1981 (Table 6). Over the past year abundance of large crab declined by 55%. In contrast, small males have been increasing regularly since 1985. Size-frequency data provide little information on recruitment trends, but abundance will likely remain low in 1989.

The fishery is largely incidental to Tanner crabbing although there is some directed effort. Currently there are an estimated 0.55 million large crabs or 1.1 (±0.6) million lb on the grounds. There are no guideline harvest levels, closed seasons or size limits for hair crab. The fishery and markets have both been intermittent and probably will remain so during 1989.

Table 6. Annual abundance estimates (millions of crabs) for hair crabs (*Erimacrus isenbeckii*) from NMFS surveys. The size at entry to the U.S. fishery is approximately 90 mm (3.5 in) carapace length.

	Males			Females	
Size[1] (mm) Length(in)	<90 <3.5	≥90 ≥3.5	Total	Total	Grand Total
1979	6.4	16.1	22.5	1.6	24.1
1980	6.0	13.7	19.7	3.1	22.8
1981	6.1	15.9	22.0	0.8	22.8
1982	1.4	7.7	9.1	0.4	9.5
1983	0.9	4.8	5.7	0.9	6.6
1984	1.1	2.9	4.0	0.4	4.4
1985	0.53	2.22	2.75	0.22	2.97
1986	0.71	1.46	2.17	0.37	2.54
1987	1.95	1.19	3.14	0.91	4.05
1988	3.98	0.55	4.52	0.85	5.37
Limits[2]					
Lower	0.00	0.22	0.00	0.17	0.17
Upper	10.0	0.87	10.55	1.54	12.09
±%	151	60	133	80	125

1 Carapace length (mm).
2 Mean ± 2 standard errors for most recent year.

Bottom Temperatures

The average bottom water temperature in 1988 was 2.2°C as compared to 3.3°C in 1987 and 1.8°C in 1986. The coldest waters were encountered around St. Matthew Island (Chart 11). The warmest waters were found in Kuskokwim Bay and inner Bristol Bay. Most year-to-year variation in temperature is associated with relatively shallow areas of the continental shelf and near shore. There is little year-to-year change in the Pribilof Islands and other shelf edge areas where temperatures are moderated by incursions of deep ocean water. The effect of water temperature on changes in the distribution and abundance of crabs in the eastern Bering Sea is poorly known.

A Note on Tagging and Tag Returns

Since 1982, NMFS has tagged a number of crabs each year. These include red, blue and golden (brown) king crabs. In Bristol Bay, we tagged about 10,000 red king crabs in 1985, 290 in 1986, 530 in 1987 and 704 in 1988, as well as 408 *C. opilio*. The purpose of our tagging program is to gather information on growth, migrations, and the frequency of molting. For this reason, we need fairly complete information with returned tags. Tag returns are not used to monitor or close fisheries. All tagged crabs, regardless of size or sex, may be retained for the purpose of tag data recovery. The following information is requested:

1. Name and mailing address of person to receive reward
2. Tag number (one or both tags if present)
3. Length-width measurements (length - from rear of eye socket to center of rear margin of carapace; width maximum width including spines)
4. Recovery date
5. Recovery location
6. Depth
7. Vessel ADF&G number

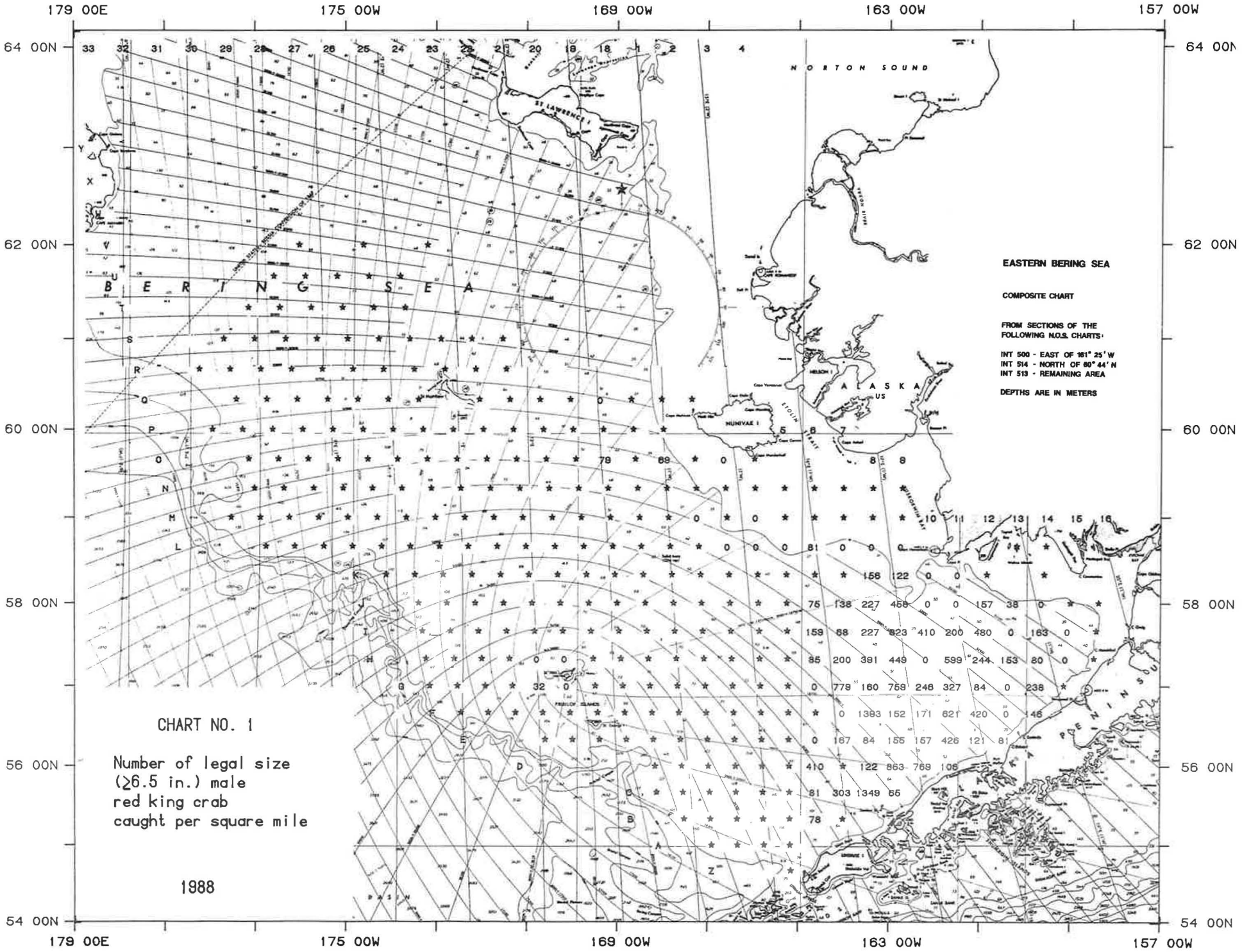
This information will be recorded on stamped data cards and if possible validated by ADF&G biologists before being mailed to the NMFS in Kodiak. The reward will be mailed to the address on the card. The crab will remain the property of the catcher vessel.

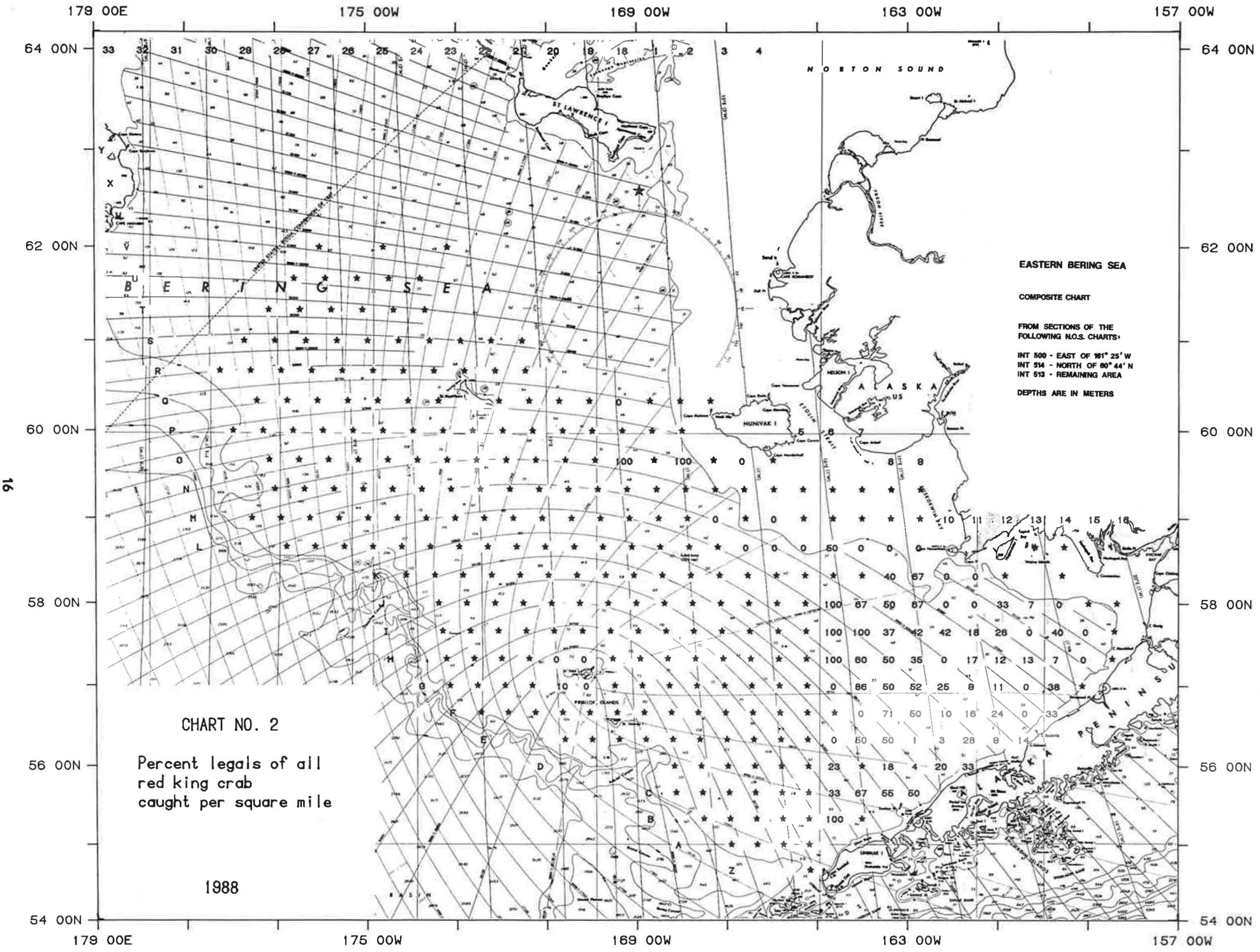
A reward of $10.00 will be paid for all tags returned with complete information with the exception of 70 predetermined numbers. Of these 70 tags, 40 will have a reward value of $25.00, 20 a reward value of $50.00 and 10 a reward value of $100.00. Tags returned without the above information will have a reward value of $1.00.

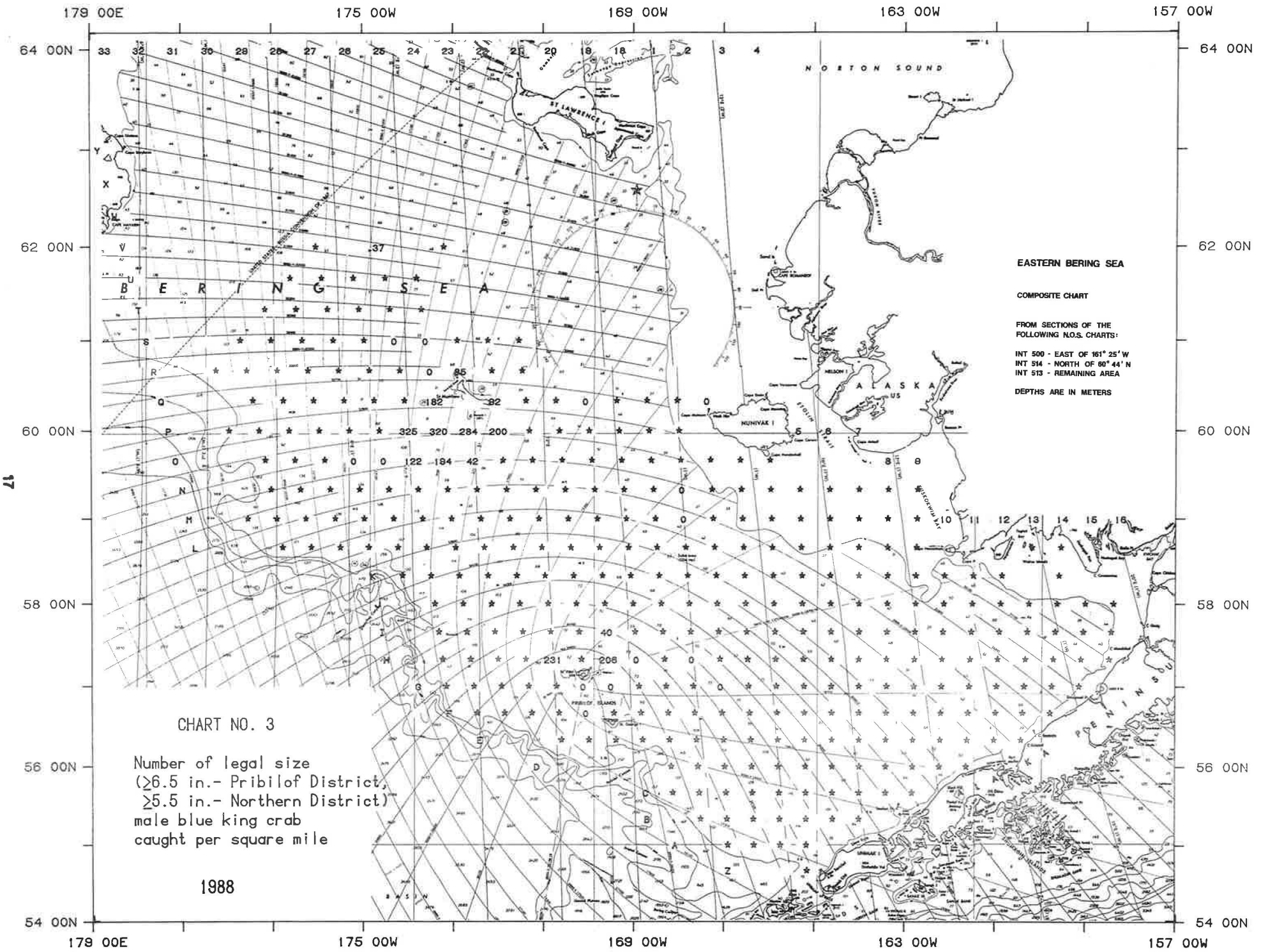
After the fishery is closed and all returns have been checked for completeness and accuracy, six of the returned numbers will be randomly selected by computer. Of these randomly selected numbers, three will have an additional reward value of $200.00 and three will have an additional reward value of $300.00. In each case, the returned tag must be accompanied by all of the above listed information to be eligible. Cooperation is essential to the success of this program.

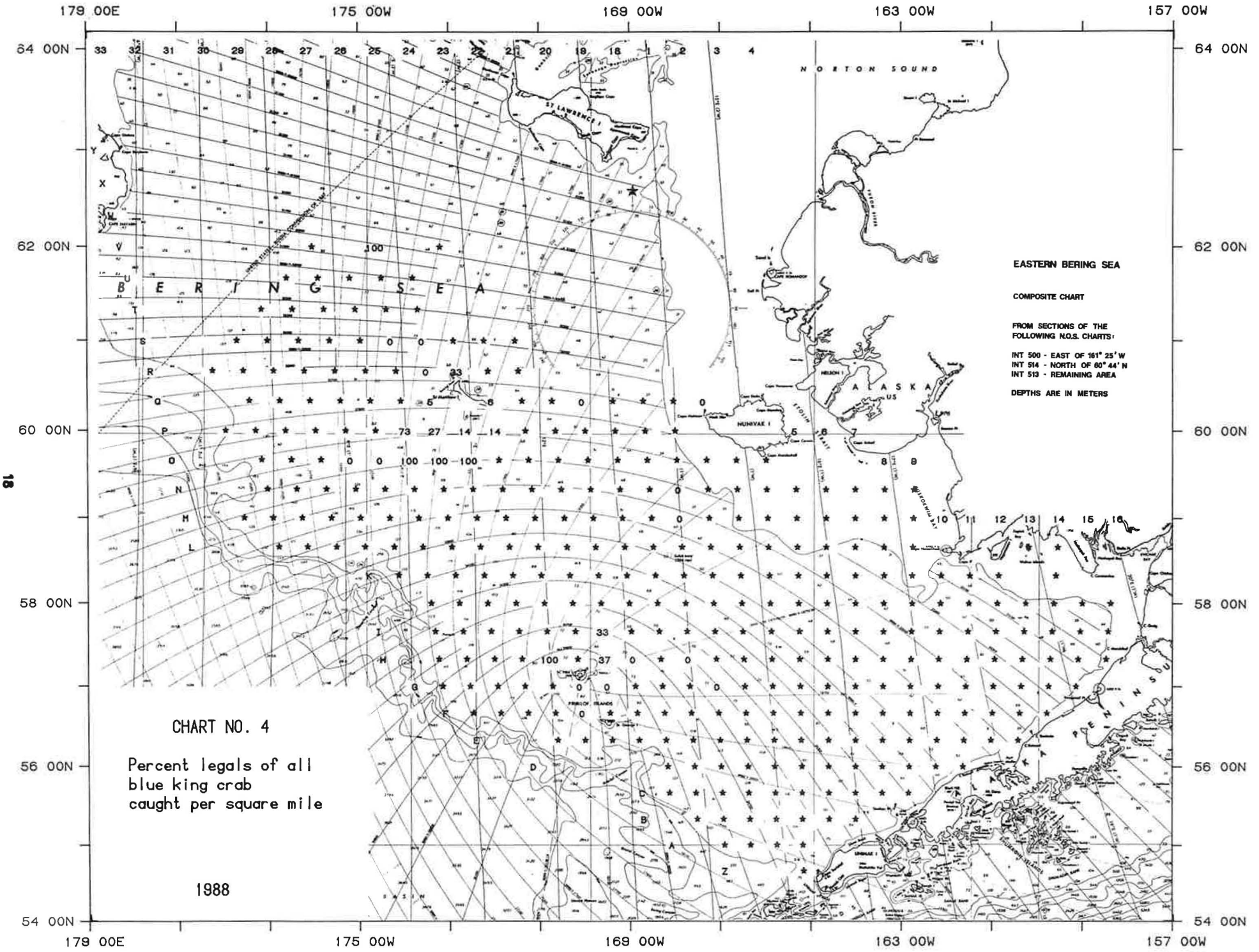
Acknowledgments

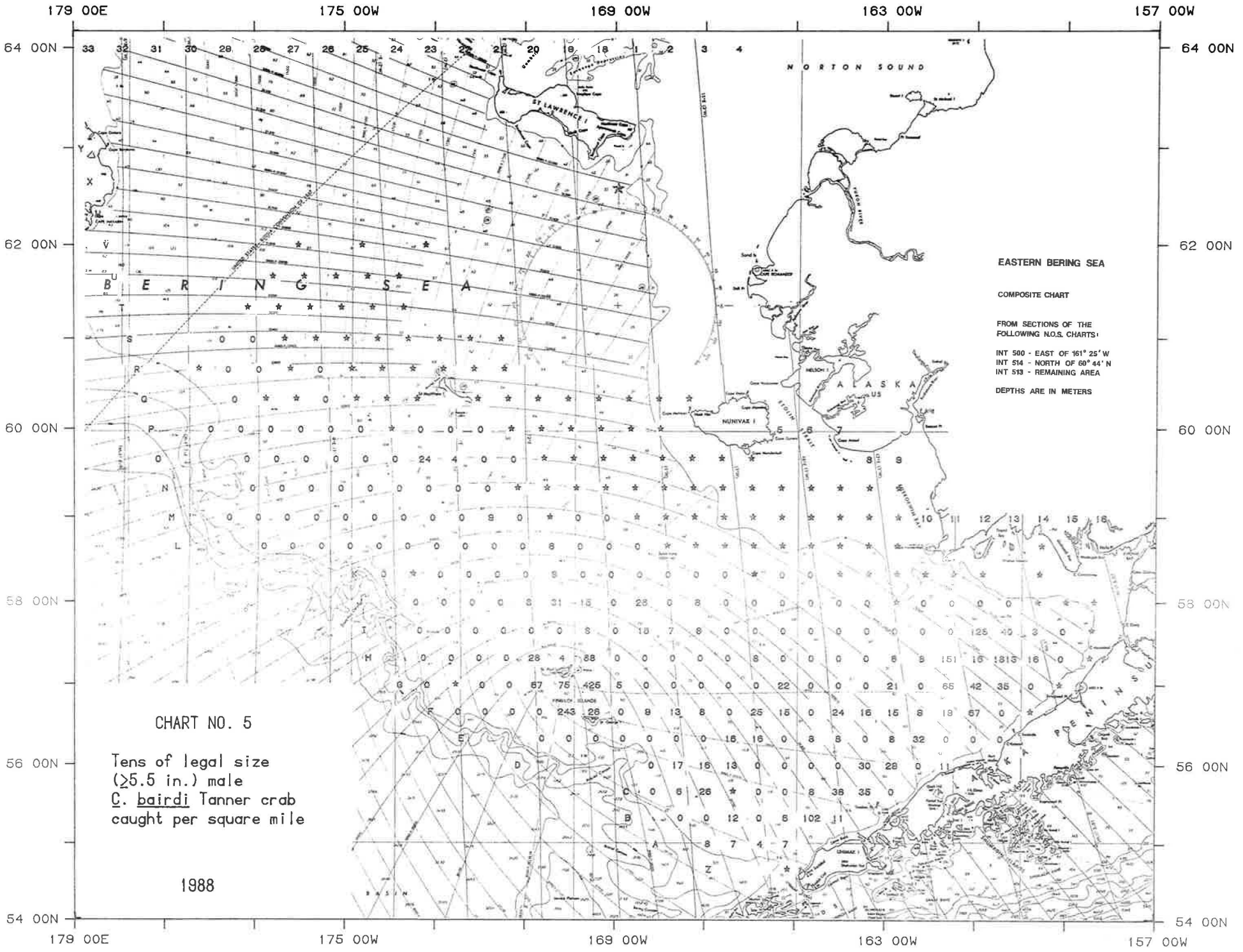
Successful completion of the annual eastern Bering Sea crab-groundfish survey is crucially dependent on the skipper and crews of the participating vessels. We extend special thanks to Mitch Hull (FV Ocean Hope 3), Tom Oswald (RV Alaska), and their crews.

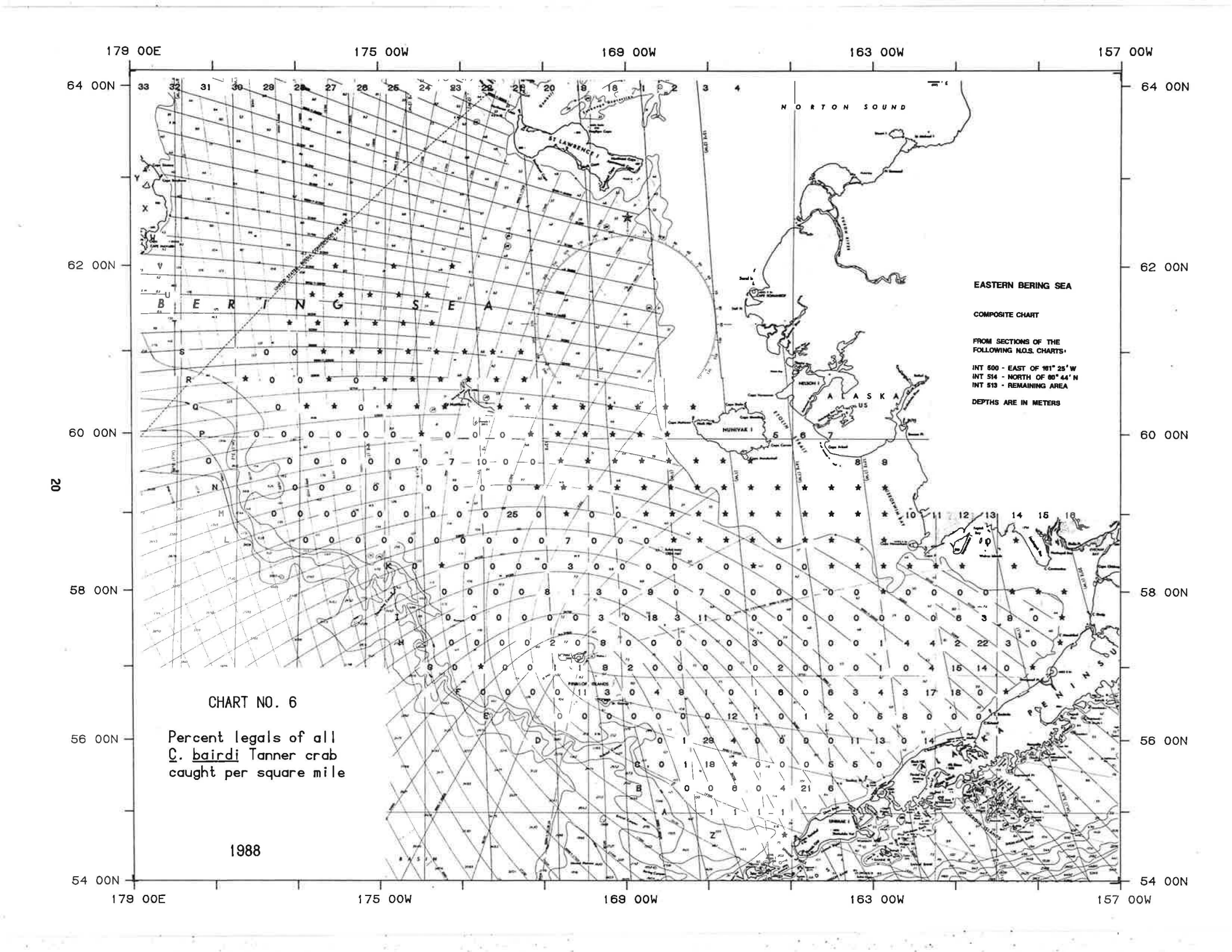

179 00E
175 00W
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163 00W
157 00W
64 00N
62 00N
60 00N
58 00N
56 00N
54 00N
B E R I N G S E A
N O R T O N S O U N D
A L A S K A
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 1
Number of legal size (≥6.5 in.) male red king crab caught per square mile
1988

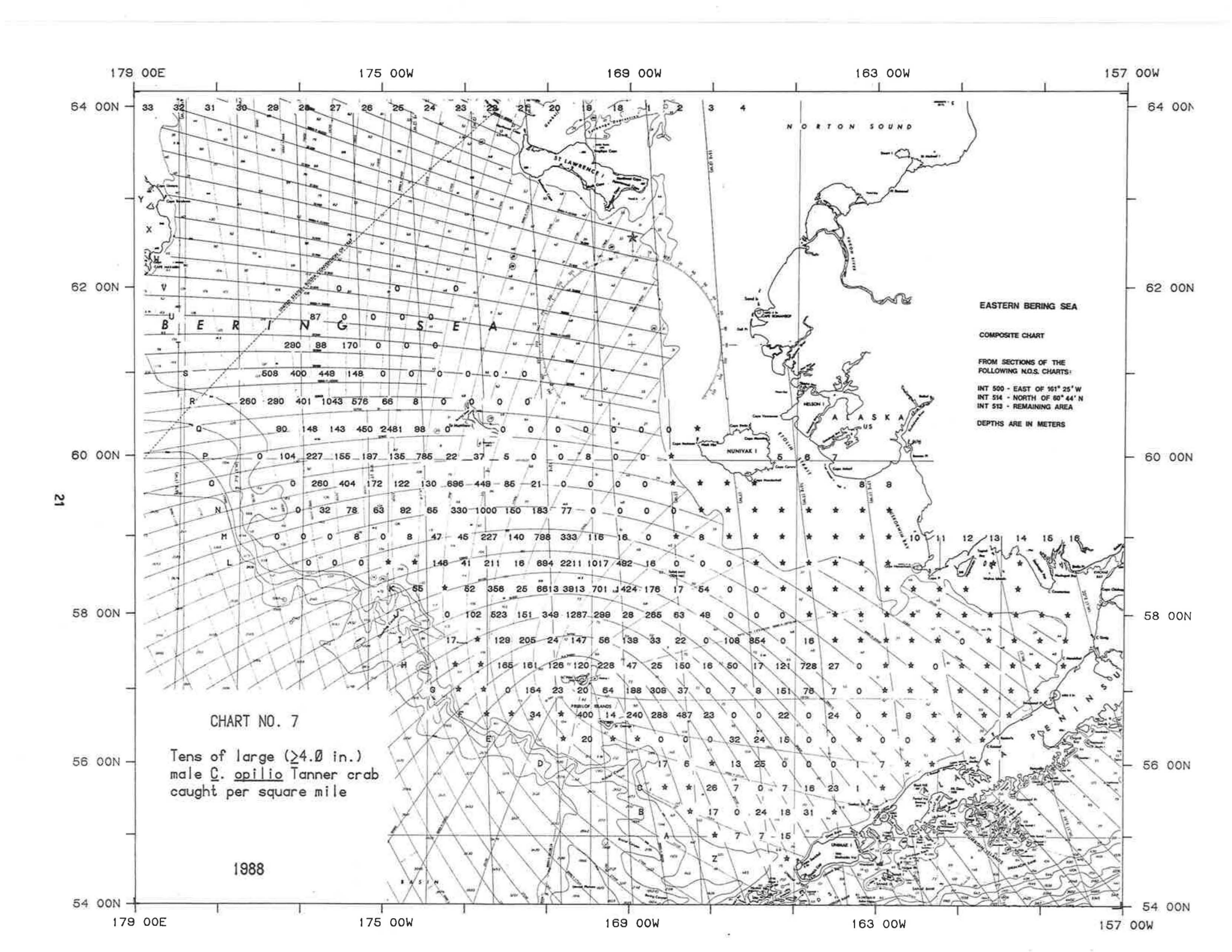

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NORTON SOUND
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HUNIVAK I
HOOPER BAY
ALASKA
BERING SEA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 2
Percent legals of all red king crab caught per square mile
1988

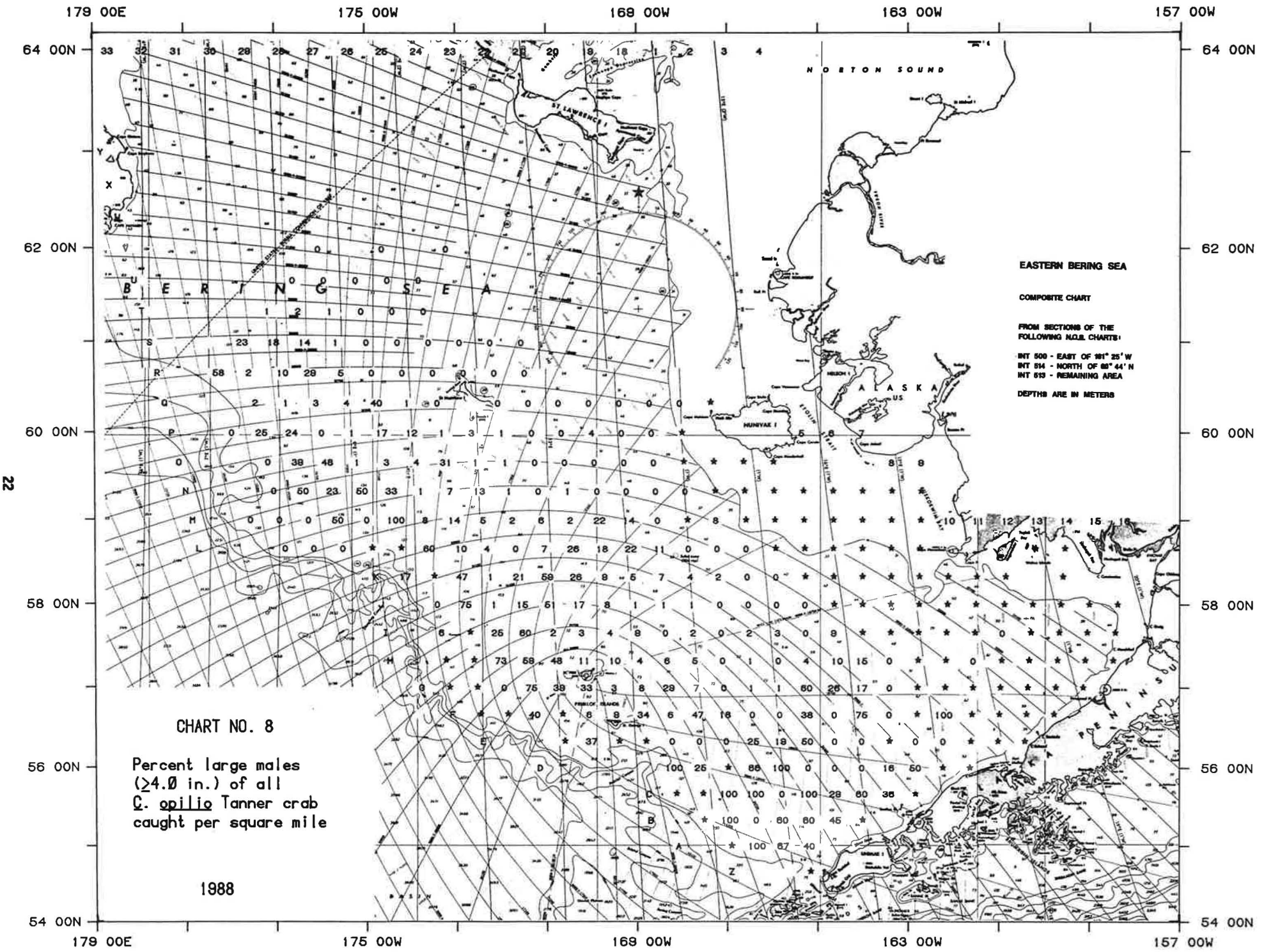

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NORTON SOUND
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BERING SEA
ALASKA
NUNIVAK I
NELSON I
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 3
Number of legal size
(≥6.5 in.- Pribilof District,
≥5.5 in.- Northern District)
male blue king crab
caught per square mile
1988

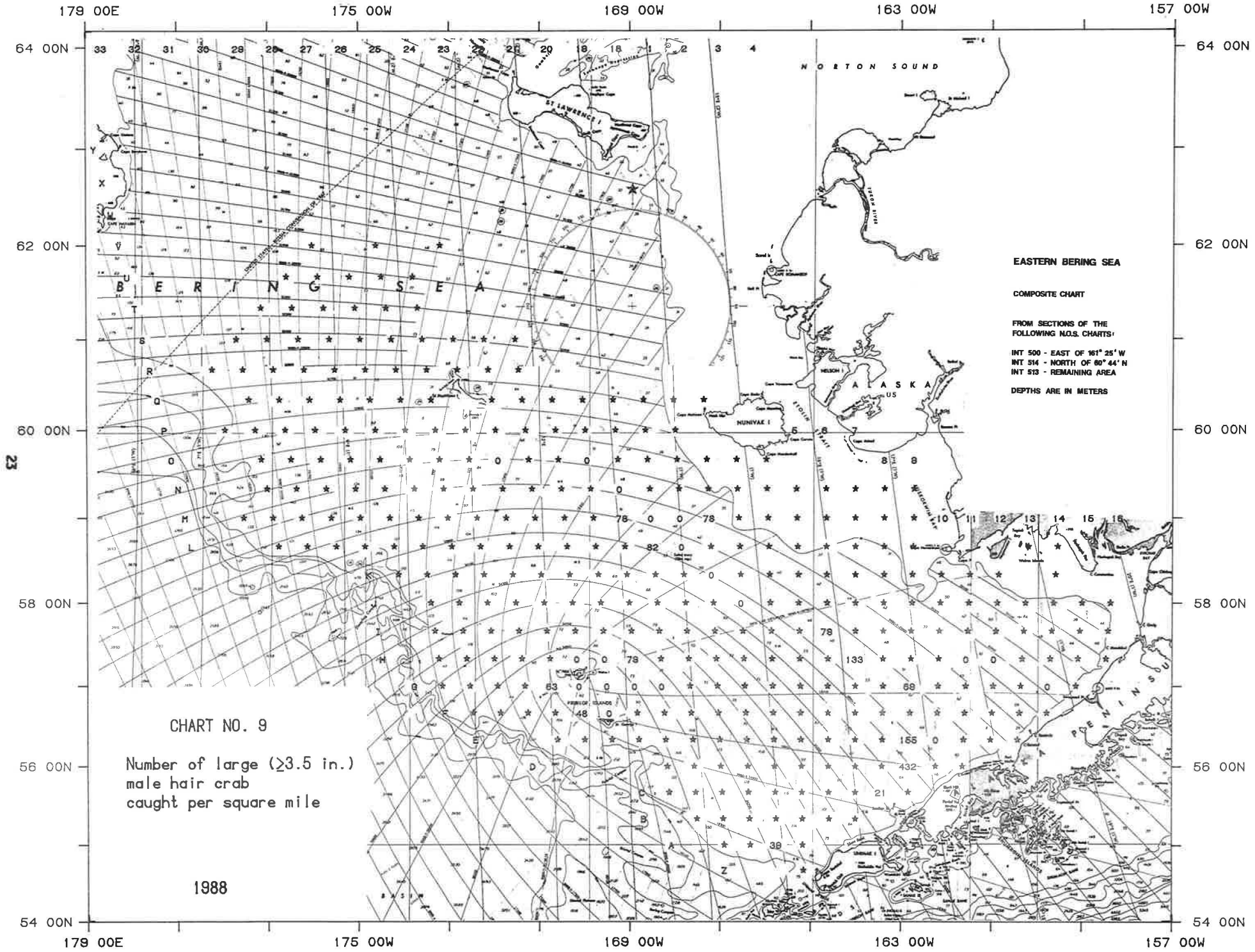

179 00E
175 00W
169 00W
163 00W
157 00W
64 00N
62 00N
60 00N
58 00N
56 00N
54 00N
NORTON SOUND
ST LAWRENCE I
BERING SEA
ALASKA
HUNIVAK I
NELSON I
PRIBILOF ISLANDS
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 4
Percent legals of all blue king crab caught per square mile
1988

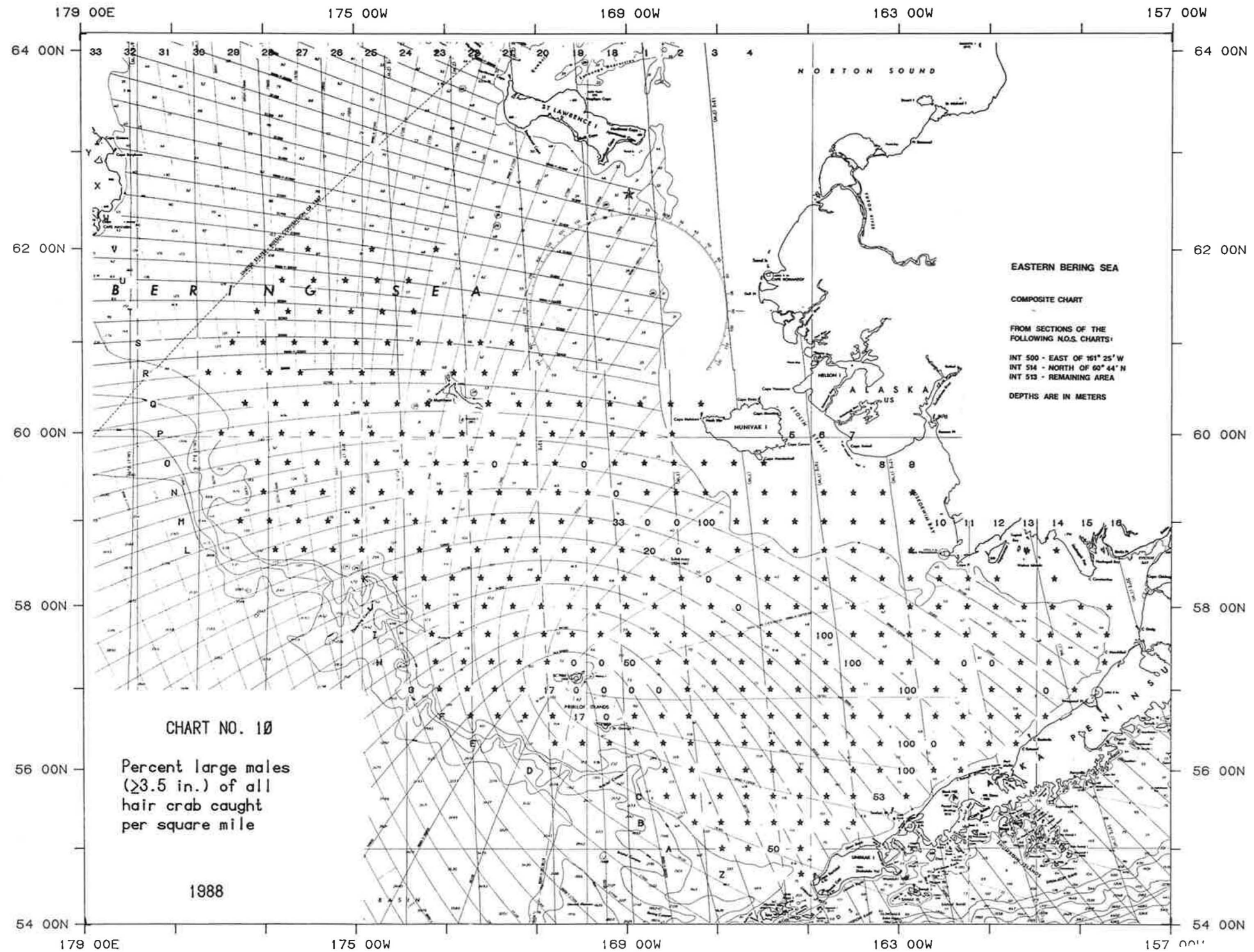

179 00E
175 00W
169 00W
163 00W
157 00W
64 00N
62 00N
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NORTON SOUND
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BERING SEA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 5
Tens of legal size (≥5.5 in.) male C. bairdi Tanner crab caught per square mile
1988


179 00E
175 00W
169 00W
163 00W
157 00W
64 00N
62 00N
60 00N
58 00N
56 00N
54 00N
NORTON SOUND
ST LAWRENCE I
B E R I N G S E A
NUNIVAK I
A L A S K A
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 6
Percent legals of all C. bairdi Tanner crab caught per square mile
1988
20


179 00E
175 00W
169 00W
163 00W
157 00W
64 00N
62 00N
60 00N
58 00N
56 00N
54 00N
BERING SEA
NORTON SOUND
ST LAWRENCE I
NUNIVAK I
HOOPER BAY
ALASKA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 7
Tens of large (≥4.0 in.) male C. opilio Tanner crab caught per square mile
1988
21


179 00E
175 00W
169 00W
163 00W
157 00W
64 00N
62 00N
60 00N
58 00N
56 00N
54 00N
NORTON SOUND
ST LAWRENCE I
BERING SEA
ALASKA
HUNIVAK I
PRIBILOF ISLANDS
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 8
Percent large males (≥4.0 in.) of all C. opilio Tanner crab caught per square mile
1988


179 00E
175 00W
169 00W
163 00W
157 00W
64 00N
62 00N
60 00N
58 00N
56 00N
54 00N
NORTON SOUND
ST LAWRENCE I
NUNIVAK I
HOOPER BAY
ALASKA
BERING SEA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 9
Number of large (≥3.5 in.) male hair crab caught per square mile
1988


179 00E
175 00W
169 00W
163 00W
157 00W
64 00N
62 00N
60 00N
58 00N
56 00N
54 00N
NORTON SOUND
ST LAWRENCE I
B E R I N G S E A
ALASKA
US
HUNIVAK I
HELIOK I
PRIBILOF ISLANDS
UNIMAK I
ALASKA PENINSULA
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 10
Percent large males (≥3.5 in.) of all hair crab caught per square mile
1988

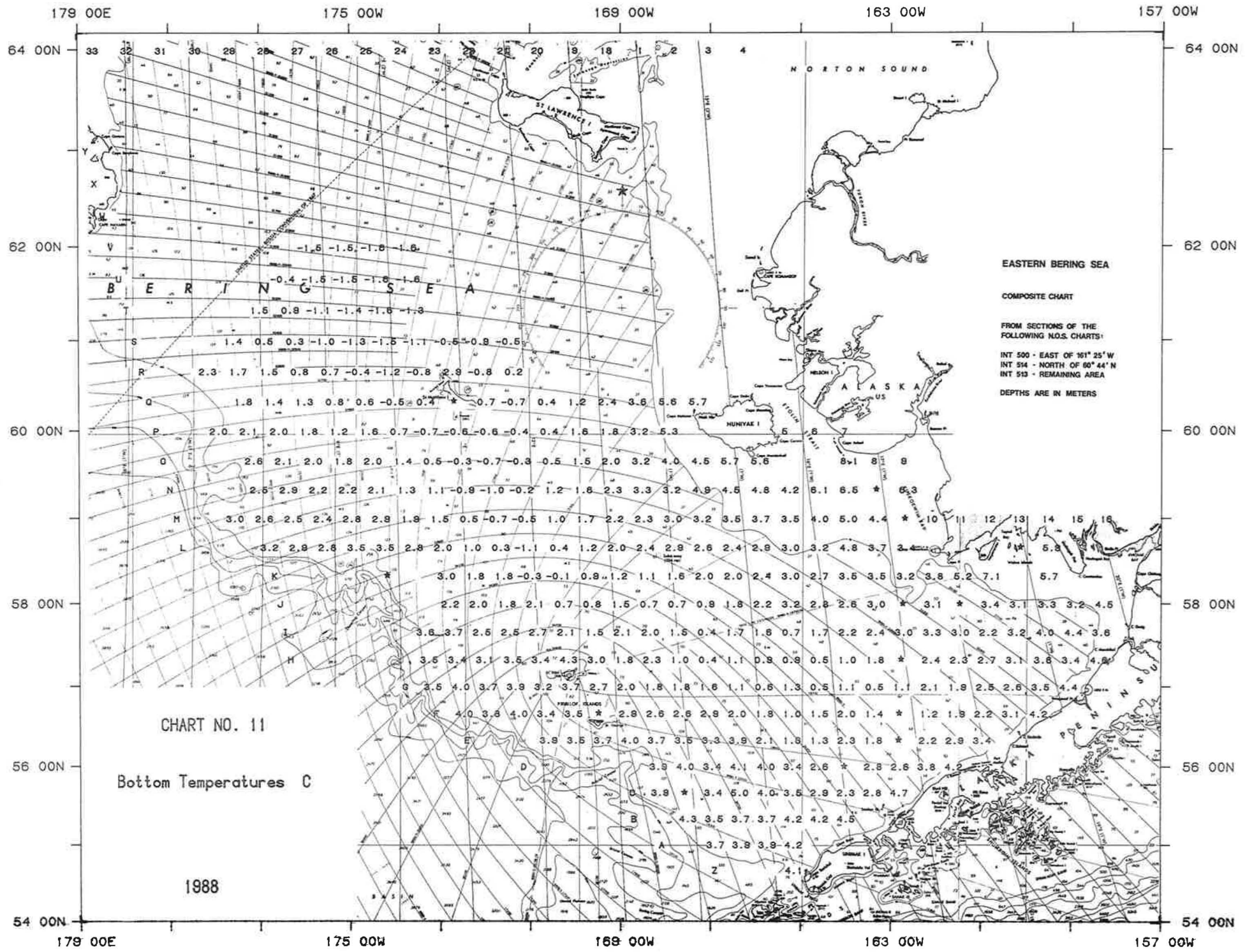

179 00E
175 00W
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163 00W
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BERING SEA
NORTON SOUND
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HUNIVAE I
HELEN I
ALASKA
US
EASTERN BERING SEA
COMPOSITE CHART
FROM SECTIONS OF THE FOLLOWING N.O.S. CHARTS:
INT 500 - EAST OF 161° 25' W
INT 514 - NORTH OF 60° 44' N
INT 513 - REMAINING AREA
DEPTHS ARE IN METERS
CHART NO. 11
Bottom Temperatures C
1988

TABLE 7 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN

							NUMBER PER SQUARE MILE				
							MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
B06	6/18	55-20	164-35	Y34425 Z47871	56	4.2	0.0	0.0	0.0	78.0	78.0	100.0
C06	6/18	55-39	164-34	Y34366 Z47884	52	2.9	0.0	0.0	163.0	81.0	244.0	33.2
C07	6/15	55-42	164-00	Y34262 Z47665	53	2.3	0.0	0.0	152.0	303.0	455.0	66.6
C08	8/06	55-45	163-16	Y34130 Z47380	48		0.0	234.0	1563.0	3438.0	5234.0	65.7
C08	8/06	55-45	163-17	Y34136 Z47390	48		0.0	0.0	0.0	231.0	231.0	100.0
C08	8/06	55-45	163-17	Y34136 Z47392	48		0.0	0.0	0.0	83.0	83.0	100.0
C08	8/06	55-43	163-21	Y34153 Z47418	46		68.0	68.0	405.0	811.0	1352.0	60.0
C08	8/06	55-43	163-19	Y34148 Z47405	46		0.0	0.0	92.0	1009.0	1101.0	91.6
C08	8/06	55-44	163-17	Y34141 Z47392	46		0.0	0.0	762.0	2952.0	3714.0	79.5
C08	8/05	55-41	163-11	Y34136 Z47352	43		0.0	0.0	0.0	89.0	89.0	100.0
C08	8/05	55-41	163-14	Y34142 Z47370	44		0.0	0.0	0.0	273.0	273.0	100.0
C08	8/05	55-42	163-17	Y34143 Z47386	46		192.0	0.0	1827.0	4519.0	6538.0	69.1
C08	8/05	55-42	163-17	Y34146 Z47390	46		0.0	0.0	606.0	1717.0	2323.0	73.9
C08	8/05	55-42	163-17	Y34146 Z47388	45		106.0	0.0	106.0	1915.0	2127.0	90.0
C08	8/05	55-41	163-18	Y34151 Z47394	44		0.0	0.0	194.0	388.0	583.0	66.6
C08	8/04	55-47	163-16	Y34125 Z47386	49		0.0	0.0	206.0	412.0	619.0	66.6
C08	8/04	55-48	163-13	Y34113 Z47362	49		114.0	0.0	0.0	1250.0	1364.0	91.6
C08	8/04	55-47	163-09	Y34107 Z47339	47		357.0	0.0	2738.0	2857.0	5952.0	48.0
C08	8/04	55-48	163-12	Y34112 Z47358	49		171.0	0.0	85.0	0.0	256.0	0.0
C08	8/04	55-45	163-17	Y34135 Z47388	47		0.0	0.0	1386.0	990.0	2376.0	41.7
C08	8/02	55-46	163-12	Y34116 Z47354	47		163.0	163.0	2195.0	2114.0	4635.0	45.6
C08	8/02	55-43	163-13	Y34131 Z47362	46		2149.0	1405.0	9587.0	4628.0	17769.0	26.0
C08	8/02	55-43	163-18	X18548 Z47397	47		0.0	0.0	543.0	1240.0	1783.0	69.5
C08	8/04	55-48	163-12	Y34112 Z47359	46		0.0	291.0	1262.0	680.0	2233.0	30.5
C08	8/02	55-46	163-12	Y34117 Z47356	45		99.0	1188.0	2178.0	1386.0	4851.0	28.6
C08	8/02	55-43	163-13	Y34130 Z47361	44		0.0	194.0	2039.0	1748.0	3981.0	43.9
C08	8/02	55-43	163-18	Y34143 Z47392	45		0.0	99.0	693.0	1287.0	2079.0	61.9
C08	6/11	55-40	163-23	Y34168 Z47424	43	2.8	0.0	0.0	157.0	1811.0	1969.0	92.0
C08	8/06	55-45	163-16	Y34131 Z47380	46		78.0	234.0	1641.0	1953.0	3906.0	50.0
C08	8/06	55-44	163-17	Y34136 Z47388	46		75.0	75.0	1053.0	1278.0	2481.0	51.5
C08	8/06	55-44	163-18	Y34140 Z47397	45		0.0	0.0	0.0	246.0	246.0	100.0
C08	8/06	55-44	163-21	Y34151 Z47416	45		0.0	0.0	0.0	96.0	96.0	100.0
C08	8/06	55-43	163-20	Y34150 Z47410	44		0.0	0.0	0.0	515.0	515.0	100.0
C08	8/06	55-44	163-18	Y34141 Z47393	44		0.0	0.0	217.0	435.0	652.0	66.7
C08	8/05	55-41	163-12	Y34136 Z47353	41		0.0	0.0	0.0	320.0	320.0	100.0
C08	8/05	55-41	163-14	Y34141 Z47369	42		0.0	0.0	76.0	153.0	229.0	66.8
C08	8/05	55-43	163-17	Y34143 Z47387	44		0.0	78.0	930.0	4031.0	5039.0	80.0
C08	8/05	55-42	163-17	Y34146 Z47392	44		0.0	0.0	391.0	1719.0	2109.0	81.5
C08	8/05	55-42	163-17	Y34145 Z47387	43		242.0	81.0	242.0	2339.0	2903.0	80.6
C08	8/05	55-42	163-18	Y34151 Z47396	43		0.0	87.0	0.0	261.0	348.0	75.0
C08	8/04	55-47	163-17	Y34125 Z47387	46		0.0	0.0	826.0	367.0	1193.0	30.8
C08	8/04	55-48	163-13	Y34113 Z47362	46		0.0	0.0	208.0	1042.0	1250.0	83.4
C08	8/04	55-47	163-09	Y34107 Z47341	46		235.0	588.0	2706.0	2706.0	6235.0	43.4
C09	6/12	55-40	162-49	Y34080 Z47210	27	4.7	0.0	0.0	65.0	65.0	129.0	50.4
D06	6/17	55-59	164-32	Y34290 Z47885	50	2.6	82.0	410.0	902.0	410.0	1803.0	22.7
D08	8/01	55-59	163-20	Y34090 Z47413	47		0.0	164.0	410.0	246.0	820.0	30.0
D08	8/01	55-59	163-25	Y34100 Z47444	47		0.0	81.0	81.0	161.0	323.0	49.8
D08	6/11	56-00	163-23	Y34093 Z47435	48	2.4	794.0	1270.0	238.0	159.0	2461.0	6.5
D08	8/01	55-58	163-18	Y34085 Z47397	49		84.0	0.0	84.0	168.0	336.0	50.0
D08	8/01	55-59	163-25	X18589 Z47442	50	3.2	0.0	82.0	0.0	0.0	82.0	0.0
D09	6/12	55-59	162-49	Y34003 Z47208	44	2.6	17823.0	1367.0	1727.0	863.0	21780.0	4.0
D10	6/11	56-00	162-13	Y33907 Z46970	34	3.4	3984.0	650.0	1545.0	1463.0	7643.0	19.1
D10	6/03	55-59	161-58	X18605 Z46875	28	4.2	74.0	0.0	0.0	74.0	148.0	50.0
D11	6/03	56-03	161-40	X18615 Z46756	26	4.2	213.0	0.0	0.0	106.0	319.0	33.2
E06	6/17	56-20	164-33	Y34209 Z47901	47	1.3	0.0	78.0	0.0	0.0	78.0	0.0
E07	6/15	56-23	164-01	Y34101 Z47690	48	2.3	83.0	0.0	83.0	167.0	333.0	50.2
E08	6/12	56-21	163-23	Y34000 Z47430	46	1.8	0.0	84.0	0.0	84.0	168.0	50.0

NOTE:PRE-RECRUIT = 5.2-6.5 IN. WIDTH;LEGAL = 6.5 IN. OR GREATER IN WIDTH

TABLE 7 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE					
								MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
E09	6/12	56-18	162-50	Y33924 Z47212	45		13488.0	5426.0	388.0	155.0	19457.0	0.8
E10	6/11	56-19	162-11	Y33818 Z46955	41	2.2	3228.0	1811.0	551.0	157.0	5748.0	2.7
E11	6/03	56-12	161-28	X18634 Z46673	30		698.0	310.0	543.0	853.0	2403.0	35.5
E11	6/08	56-20	161-36	Y33723 Z46721	37	2.9	75.0	301.0	301.0	0.0	677.0	0.0
E12	6/04	56-21	160-54	X18653 Z46439	30	3.2	155.0	388.0	1085.0	155.0	1783.0	8.7
E12	6/07	56-20	160-58	Y33631 Z46472	28	3.5	345.0	259.0	345.0	86.0	1035.0	8.3
E13	6/04	56-27	160-37	X18664 Z46329	29		244.0	0.0	244.0	81.0	569.0	14.2
F07	6/15	56-41	163-58	Y34005 Z47667	42	2.0	0.0	0.0	81.0	0.0	81.0	0.0
F08	6/12	56-40	163-22	Y33912 Z47429	40	1.4	0.0	82.0	492.0	1393.0	1967.0	70.8
F09	6/11	56-39	162-47	Y33818 Z47189	41		76.0	0.0	76.0	152.0	303.0	50.2
F10	6/10	56-40	162-10	Y33717 Z46944	40	1.2	684.0	684.0	256.0	171.0	1795.0	9.5
F11	6/08	56-40	161-35	Y33626 Z46707	50	1.9	2298.0	745.0	311.0	621.0	3975.0	15.6
F12	6/07	56-40	160-57	Y33533 Z46455	37	2.2	588.0	504.0	252.0	420.0	1764.0	23.8
F13	6/04	56-39	160-14	X18681 Z46170	30	3.6	0.0	72.0	72.0	0.0	145.0	0.0
F13	6/04	56-32	160-24	X18671 Z46237	26		0.0	85.0	85.0	0.0	171.0	0.0
F13	6/07	56-39	160-21	Y33453 Z46214	32	2.5	60.0	0.0	0.0	0.0	60.0	0.0
F14	6/04	56-41	159-44	X18685 Z45966	21	4.2	146.0	146.0	0.0	146.0	438.0	33.3
G06	6/17	56-59	164-35	Y34018 Z47911	38	0.5	0.0	0.0	84.0	0.0	84.0	0.0
G07	6/15	57-01	163-56	Y33893 Z47646	38	1.1	65.0	0.0	65.0	779.0	909.0	85.7
G08	6/12	57-00	163-23	Y33808 Z47424	35	0.5	0.0	80.0	80.0	160.0	320.0	50.0
G09	6/11	56-59	162-47	Y33712 Z47186	34	1.1	276.0	69.0	345.0	759.0	1448.0	52.4
G10	6/10	57-00	162-09	Y33610 Z46933	33	2.1	246.0	82.0	410.0	246.0	984.0	25.0
G11	6/08	57-01	161-33	Y33513 Z46691	38	1.9	2092.0	784.0	458.0	327.0	3661.0	8.9
G12	6/08	56-59	160-57	Y33434 Z46449	33	2.5	336.0	252.0	84.0	84.0	756.0	11.1
G13	6/07	56-58	160-21	Y33354 Z46209	35	2.6	70.0	140.0	0.0	0.0	210.0	0.0
G14	6/07	57-00	159-41	Y33254 Z45935	30	3.5	397.0	0.0	0.0	238.0	635.0	37.5
G21	7/03	57-00	170-10	X18690 Y35133	37	3.9	79.0	0.0	0.0	0.0	79.0	0.0
G21	7/05	57-10	169-53	Y35043 Z50032	27	4.1	1405.0	579.0	496.0	0.0	2479.0	0.0
G22	7/04	57-06	170-28	X18654 Y35114	32	4.1	95.0	286.0	476.0	95.0	952.0	10.0
H06	6/17	57-20	164-35	Y33898 Z47899	35	0.5	0.0	0.0	0.0	85.0	85.0	100.0
H07	6/16	57-17	163-56	Y33799 Z47637	36	1.0	0.0	0.0	133.0	200.0	333.0	60.1
H08	6/12	57-20	163-23	Y33693 Z47416	27	1.8	78.0	0.0	313.0	391.0	781.0	50.1
H09	6/11	57-18	162-47	Y33602 Z47175	27		64.0	128.0	641.0	449.0	1282.0	35.0
H10	6/10	57-20	162-09	Y33496 Z46921	27	2.4	0.0	81.0	161.0	0.0	242.0	0.0
H11	6/09	57-22	161-31	Y33389 Z46668	32	2.3	1377.0	1018.0	539.0	599.0	3533.0	17.0
H12	6/08	57-20	160-55	Y33316 Z46430	33	2.7	1220.0	325.0	244.0	244.0	2033.0	12.0
H13	6/07	57-21	160-19	Y33227 Z46185	34	3.1	763.0	76.0	153.0	153.0	1145.0	13.4
H14	6/06	57-20	159-38	Y33142 Z45915	30	3.6	480.0	320.0	320.0	80.0	1200.0	6.7
H15	6/05	57-20	159-04	X18725 Z45683	28	3.4	84.0	84.0	0.0	0.0	168.0	0.0
H21	7/04	57-16	170-16	X18711 Y35043	30	4.4	6915.0	6170.0	0.0	0.0	13085.0	0.0
H22	7/05	57-29	170-33	X18592 Y34888	42	2.7	0.0	153.0	0.0	0.0	153.0	0.0
I06	6/16	57-40	164-36	Y33769 Z47889	28	1.7	0.0	0.0	0.0	159.0	159.0	100.0
I07	6/16	57-42	163-58	Y33646 Z47631	41	2.2	0.0	0.0	0.0	68.0	68.0	100.0
I08	6/12	57-39	163-21	Y33563 Z47393	24	2.4	152.0	0.0	227.0	227.0	607.0	37.4
I09	6/11	57-40	162-46	Y33464 Z47155	25	3.0	65.0	65.0	323.0	323.0	775.0	41.7
I10	6/10	57-40	162-07	Y33368 Z46900	25	3.3	82.0	82.0	410.0	410.0	984.0	41.7
I11	6/09	57-41	161-30	Y33272 Z46651	29	3.0	67.0	67.0	800.0	200.0	1134.0	17.6
I12	6/09	57-41	160-54	Y33188 Z46412	30	2.2	560.0	320.0	480.0	480.0	1840.0	26.1
I13	6/06	57-39	160-16	Y33114 Z46162	31	3.2	197.0	329.0	66.0	0.0	592.0	0.0
I14	6/06	57-40	159-37	Y33023 Z45900	26	4.0	163.0	0.0	81.0	163.0	407.0	40.0
I15	6/05	57-41	159-00	X18738 Z45660	25	4.4	68.0	0.0	0.0	0.0	68.0	0.0
J06	6/16	58-00	164-36	Y33623 Z47860	24	2.8	0.0	0.0	0.0	75.0	75.0	100.0
J07	6/16	58-03	164-03	Y33507 Z47642	26	2.6	0.0	0.0	69.0	138.0	207.0	66.7
J08	6/13	58-00	163-22	Y33420 Z47376	23	3.0	152.0	76.0	0.0	227.0	455.0	49.9
J09	6/11	58-02	162-46	Y33315 Z47141	23		0.0	0.0	229.0	458.0	687.0	66.7
J10	6/10	57-59	162-07	Y33241 Z46885	20	3.1	85.0	85.0	169.0	0.0	339.0	0.0
J11	6/09	57-59	161-29	Y33152 Z46640	30		882.0	662.0	0.0	0.0	1544.0	0.0

NOTE:PRE-RECRUIT = 5.2-6.5 IN. WIDTH;LEGAL = 6.5 IN. OR GREATER IN WIDTH

TABLE 7 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE RED KING CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE					
								MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
J12	6/09	57-59	160-51	Y33063 Z46387	23	3.4	157.0	157.0	0.0	157.0	472.0	33.3
J13	6/06	58-05	160-11	Y32943 Z46124	26	3.2	252.0	63.0	126.0	0.0	441.0	0.0
J13	6/06	58-00	160-12	Y32977 Z46133	28	2.9	0.0	385.0	231.0	77.0	692.0	11.1
J14	6/06	58-00	159-36	Y32903 Z45900	22	3.3	254.0	85.0	0.0	0.0	339.0	0.0
K08	6/13	58-19	163-21	Y33277 Z47352	19	3.5	0.0	0.0	234.0	156.0	391.0	39.9
K09	6/10	58-19	162-41	Y33182 Z47096	18	3.2	61.0	0.0	0.0	122.0	183.0	66.7
K10	6/09	58-20	162-02	Y33085 Z46840	25	3.8	0.0	85.0	85.0	0.0	169.0	0.0
K11	6/09	58-11	161-30	Y33077 Z46639	25	5.2	0.0	100.0	300.0	0.0	400.0	0.0
L03	6/22	58-36	166-34	X18702 Z48514	24	2.4	122.0	0.0	61.0	0.0	183.0	0.0
L04	6/21	58-39	165-55	Y33506 Z48275	19	2.9	85.0	0.0	0.0	0.0	85.0	0.0
L05	6/17	58-39	165-17	Y33407 Z48044	22	3.0	0.0	56.0	0.0	0.0	56.0	0.0
L06	6/16	58-40	164-38	Y33301 Z47806	19	3.2	0.0	0.0	81.0	81.0	163.0	49.7
L07	6/16	58-40	163-57	Y33197 Z47550	19	4.8	78.0	0.0	78.0	0.0	156.0	0.0
L08	6/13	58-39	163-20	Y33120 Z47323	16	3.7	0.0	0.0	84.0	0.0	84.0	0.0
L09	6/10	58-32	162-51	Y33108 Z47144	17	3.4	0.0	0.0	115.0	0.0	115.0	0.0
M02	6/28	58-59	167-14	Y33487 Z48650	20	3.2	78.0	78.0	0.0	0.0	156.0	0.0
M04	6/21	58-59	165-55	Y33313 Z48217	15	3.7	83.0	0.0	83.0	0.0	166.0	0.0
O01	6/28	59-40	167-57	Y33105 Z48682	19	4.0	0.0	0.0	0.0	69.0	69.0	100.0
O03	6/21	59-40	166-39	Y32974 Z48313	14	5.7	0.0	80.0	0.0	0.0	80.0	0.0
O19	6/29	59-41	169-16	Y33217 Z49008	26	2.0	0.0	0.0	0.0	79.0	79.0	100.0
Q19	6/29	60-19	169-19	Y32757 Z48823	24	2.4	71.0	0.0	0.0	0.0	71.0	0.0

NOTE:PRE-RECRUIT = 5.2-6.5 IN. WIDTH;LEGAL = 6.5 IN. OR GREATER IN WIDTH

TABLE 8 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE BLUE KING CRAB WERE TAKEN

							NUMBER PER SQUARE MILE					
								MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
F21	7/03	56-49	169-51	Y35099 Z49978	39	3.5	286.0	0.0	0.0	0.0	286.0	0.0
G02	6/26	56-59	167-04	Y34494 Z48912	40	1.6	0.0	79.0	0.0	0.0	79.0	0.0
G20	7/05	57-02	169-35	Y35016 Z49912	33	1.8	794.0	79.0	0.0	0.0	873.0	0.0
G21	7/05	57-10	169-53	Y35043 Z50032	27	4.1	2975.0	3636.0	0.0	0.0	6611.0	0.0
G21	7/03	57-00	170-10	X18690 Y35133	37	3.9	79.0	157.0	0.0	0.0	236.0	0.0
H01	6/27	57-18	167-43	X18744 Z49158	41	1.0	75.0	75.0	0.0	0.0	150.0	0.0
H19	7/01	57-19	169-00	Y34777 Z49662	40	1.8	79.0	0.0	0.0	0.0	79.0	0.0
H20	7/01	57-29	169-20	Y34764 Z49758	40	1.7	81.0	0.0	0.0	325.0	406.0	80.0
H20	7/05	57-21	169-34	Y34884 Z49877	35	1.8	263.0	351.0	0.0	88.0	702.0	12.5
H22	7/10	57-20	170-51	X18516 Y34942	44	3.4	0.0	0.0	0.0	80.0	80.0	100.0
H22	7/05	57-29	170-33	X18592 Y34888	42	2.7	0.0	0.0	0.0	382.0	382.0	100.0
I20	7/06	57-49	169-23	Y34566 Z49678	34	2.0	159.0	0.0	0.0	0.0	159.0	0.0
I20	7/06	57-40	169-37	Y34692 Z49799	37	1.9	0.0	0.0	0.0	80.0	80.0	100.0
M01	6/28	59-00	167-52	X18591 Y33557	23	3.0	71.0	0.0	0.0	0.0	71.0	0.0
N01	6/28	59-20	167-54	Y33337 Z48764	21	3.2	0.0	63.0	0.0	0.0	63.0	0.0
O24	7/20	59-49	172-54	Y33215 Z49534	43	-1.0	0.0	0.0	0.0	84.0	84.0	100.0
O25	7/13	59-39	173-12	X17557 Y33318	54	0.0	0.0	0.0	0.0	83.0	83.0	100.0
O25	7/13	59-30	173-27	X17506 Y33404	58	1.0	0.0	0.0	229.0	76.0	305.0	24.9
O26	7/23	59-40	173-53	X17378 Y33286	57	1.4	0.0	0.0	81.0	0.0	81.0	0.0
O26	7/22	59-49	174-13	X17280 Y33180	58	1.2	0.0	0.0	81.0	81.0	163.0	49.7
O27	7/23	59-34	174-31	X17210 Y33323	66	2.0	76.0	0.0	0.0	0.0	76.0	0.0
O28	7/24	59-40	175-05	X17052 Y33245	68	1.8	115.0	0.0	0.0	0.0	115.0	0.0
P23	7/08	60-10	172-18	X17711 Y32975	32	1.9	1000.0	1100.0	700.0	0.0	2800.0	0.0
P24	7/20	59-59	172-39	X17659 Y33107	36	-0.1	0.0	82.0	164.0	164.0	410.0	40.0
P24	7/20	60-09	172-58	X17563 Y32990	31		1694.0	1048.0	887.0	81.0	3710.0	2.2
P25	7/20	59-52	173-34	X17449 Y33172	53	-0.9	0.0	0.0	168.0	84.0	252.0	33.3
P25	7/20	60-03	173-19	X17492 Y33057	41	-0.4	377.0	943.0	566.0	189.0	2075.0	9.1
P26	7/22	60-00	173-57	X17340 Y33081	53	0.1	0.0	81.0	325.0	81.0	488.0	16.6
P26	7/22	60-10	174-19	X17239 Y32963	55	0.3	0.0	81.0	163.0	163.0	407.0	40.0
Q02	6/28	60-19	167-21	Y32598 Z48355	16	5.7	83.0	0.0	83.0	0.0	166.0	0.0
Q20	7/07	60-19	170-02	Y32794 Z48963	27	1.2	0.0	76.0	0.0	0.0	76.0	0.0
Q23	7/08	60-18	172-06	X17734 Y32881	27	-0.5	826.0	734.0	92.0	0.0	1652.0	0.0
Q25	7/20	60-20	173-24	X17450 Y32874	34	0.4	1455.0	1818.0	182.0	0.0	3455.0	0.0
R24	7/20	60-39	172-49	X17543 Y32650	23		0.0	85.0	171.0	0.0	256.0	0.0
R25	7/21	60-41	173-30	X17395 Y32645	38	-0.8	556.0	370.0	0.0	0.0	926.0	0.0
S25	7/21	61-00	173-30	X17367 Y32430	43	-1.1	83.0	0.0	0.0	0.0	83.0	0.0
S26	7/22	61-00	174-08	X17233 Y32445	45	-1.5	0.0	0.0	81.0	0.0	81.0	0.0
V26	7/21	61-55	174-53	X17029 Y31905	44	-1.5	0.0	0.0	0.0	74.0	74.0	100.0

NOTE:PRE-RECRUIT = 5.2-6.5 IN. WIDTH;LEGAL = 6.5 IN. OR GREATER IN WIDTH FOR AREA S. OF 58:39N
PRE-RECRUIT = 4.3-5.5 IN. WIDTH;LEGAL = 5.5 IN. OR GREATER IN WIDTH FOR AREA N. OF 58:39N

TABLE 9 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN

							NUMBER PER SQUARE MILE				
								MALES (SEE NOTE)			
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
A02	6/25	55-00	166-55	Y34822 Z48678	85	3.7	2773.0	3529.0	168.0	84.0	6555.0	1.3
A03	6/20	55-01	166-18	X18289 Z48469	80	3.9	3768.0	2464.0	725.0	72.0	7029.0	1.0
A04	6/18	55-00	165-44	Y34653 Z48268	70	3.9	1838.0	956.0	0.0	74.0	2867.0	2.6
A04	6/18	54-50	165-42	Y34667 Z48241	84	3.8	2109.0	2031.0	78.0	0.0	4218.0	0.0
A05	6/19	54-58	165-09	X18344 Z48057	62	4.2	4526.0	3723.0	0.0	73.0	8322.0	0.9
B01	6/26	55-24	167-33	X18318 Z48947	79	4.3	903.0	694.0	69.0	0.0	1667.0	0.0
B02	6/25	55-20	166-58	X18337 Z48736	76	3.5	500.0	333.0	333.0	0.0	1167.0	0.0
B03	6/20	55-20	166-20	X18373 Z48515	75	3.7	859.0	859.0	61.0	123.0	1902.0	6.5
B04	6/19	55-20	165-46	Y34612 Z48312	65	3.7	14829.0	9930.0	81.0	0.0	24840.0	0.0
B05	6/19	55-19	165-10	X18422 Z48088	62	4.2	613.0	798.0	0.0	61.0	1472.0	4.1
B06	6/18	55-20	164-35	Y34425 Z47871	56	4.2	1563.0	1094.0	1250.0	1016.0	4922.0	20.6
B07	6/12	55-18	163-58	Y34334 Z47641	71	4.5	160.0	1123.0	321.0	107.0	1711.0	6.3
C01	6/26	55-41	167-35	X18407 Z49001	75		1731.0	3077.0	449.0	64.0	5321.0	1.2
C02	6/26	55-39	166-58	X18430 Z48783	74	3.4	789.0	175.0	175.0	263.0	1403.0	18.7
C04	6/19	55-40	165-48	X18480 Z48350	64	4.0	5547.0	5703.0	0.0	0.0	11250.0	0.0
C05	6/19	55-37	165-10	X18489 Z48111	62	3.5	563.0	986.0	70.0	0.0	1619.0	0.0
C06	6/18	55-39	164-34	Y34366 Z47884	52	2.9	12195.0	9024.0	407.0	81.0	21707.0	0.4
C07	6/15	55-42	164-00	Y34262 Z47665	53	2.3	3864.0	3864.0	303.0	379.0	8409.0	4.5
C08	8/06	55-45	163-16	Y34131 Z47380	46		6669.0	8534.0	2845.0	1094.0	19141.0	5.7
C08	8/06	55-44	163-17	Y34136 Z47388	46		4286.0	9850.0	1805.0	451.0	16391.0	2.8
C08	8/06	55-44	163-18	Y34140 Z47397	45		2213.0	3279.0	1803.0	820.0	8115.0	10.1
C08	8/06	55-44	163-21	Y34151 Z47416	45		192.0	1154.0	769.0	96.0	2211.0	4.3
C08	8/06	55-43	163-20	Y34150 Z47410	44		515.0	1443.0	928.0	206.0	3092.0	6.7
C08	8/06	55-44	163-18	Y34141 Z47393	44		870.0	1413.0	435.0	217.0	2935.0	7.4
C08	8/05	55-41	163-12	Y34136 Z47353	41		1680.0	8640.0	560.0	80.0	10960.0	0.7
C08	8/05	55-41	163-14	Y34141 Z47369	42		2519.0	9542.0	2290.0	153.0	14504.0	1.1
C08	8/05	55-43	163-17	Y34143 Z47387	44		2636.0	8025.0	2675.0	422.0	13758.0	3.1
C08	8/05	55-42	163-17	Y34146 Z47392	44		1172.0	5938.0	2813.0	547.0	10469.0	5.2
C08	8/05	55-42	163-17	Y34145 Z47387	43		3710.0	10095.0	2479.0	354.0	17203.0	2.1
C08	8/05	55-42	163-18	Y34151 Z47396	43		5043.0	10174.0	3130.0	435.0	18782.0	2.3
C08	8/04	55-47	163-17	Y34125 Z47387	46		1009.0	2018.0	1651.0	459.0	5137.0	8.9
C08	8/04	55-48	163-13	Y34113 Z47362	46		1354.0	1146.0	729.0	0.0	3229.0	0.0
C08	8/04	55-47	163-09	Y34107 Z47341	46		1176.0	2941.0	1176.0	235.0	5529.0	4.3
C08	8/04	55-48	163-12	Y34112 Z47359	46		971.0	1456.0	291.0	97.0	2816.0	3.4
C08	8/04	55-45	163-17	Y34136 Z47391	46		2079.0	4752.0	2277.0	297.0	9406.0	3.2
C08	8/02	55-46	163-12	Y34117 Z47356	45		2277.0	4158.0	2178.0	990.0	9604.0	10.3
C08	8/02	55-43	163-13	Y34130 Z47361	44		291.0	1068.0	583.0	291.0	2233.0	13.0
C08	8/02	55-43	163-18	Y34143 Z47392	45		495.0	1188.0	990.0	198.0	2871.0	6.9
C08	6/11	55-40	163-23	Y34168 Z47424	43	2.8	7559.0	8819.0	1339.0	315.0	18031.0	1.7
C08	8/06	55-45	163-16	Y34130 Z47380	48		2422.0	5469.0	1641.0	625.0	10156.0	6.2
C08	8/06	55-45	163-17	Y34136 Z47390	48		3308.0	4769.0	1231.0	692.0	10000.0	6.9
C08	8/06	55-45	163-17	Y34136 Z47392	48		1500.0	2667.0	1750.0	667.0	6583.0	10.1
C08	8/06	55-43	163-21	Y34153 Z47418	46		541.0	1892.0	203.0	203.0	2838.0	7.2
C08	8/06	55-43	163-19	Y34148 Z47405	46		1835.0	4037.0	1376.0	367.0	7615.0	4.8
C08	8/06	55-44	163-17	Y34141 Z47392	46		2857.0	4190.0	1524.0	286.0	8857.0	3.2
C08	8/05	55-41	163-11	Y34136 Z47352	43		0.0	89.0	89.0	0.0	179.0	0.0
C08	8/05	55-41	163-14	Y34142 Z47370	44		1273.0	4909.0	636.0	0.0	6818.0	0.0
C08	8/05	55-42	163-17	Y34143 Z47386	46		3750.0	7596.0	1731.0	385.0	13462.0	2.9
C08	8/05	55-42	163-17	Y34146 Z47390	46		202.0	1919.0	707.0	202.0	3030.0	6.7
C08	8/05	55-42	163-17	Y34146 Z47388	45		319.0	2660.0	1170.0	0.0	4149.0	0.0
C08	8/05	55-41	163-18	Y34151 Z47394	44		388.0	3301.0	1359.0	291.0	5339.0	5.5
C08	8/04	55-47	163-16	Y34125 Z47386	49		928.0	1237.0	2577.0	722.0	5464.0	13.2
C08	8/04	55-48	163-13	Y34113 Z47362	49		1364.0	1591.0	682.0	114.0	3750.0	3.0
C08	8/04	55-47	163-09	Y34107 Z47339	47		595.0	2976.0	1905.0	238.0	5714.0	4.2
C08	8/04	55-48	163-12	Y34112 Z47358	49		171.0	940.0	256.0	85.0	1453.0	5.8
C08	8/04	55-45	163-17	Y34135 Z47388	47		1485.0	2277.0	1881.0	495.0	6138.0	8.1
C08	8/02	55-46	163-12	Y34116 Z47354	47		1707.0	4146.0	1545.0	569.0	7967.0	7.1

NOTE:PRE-RECRUIT = 4.3-5.5 IN. WIDTH;LEGAL = 5.5 IN. OR GREATER IN WIDTH

TABLE 9 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE				
								MALES (SEE NOTE)			
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
C08	8/02	55-43	163-13	Y34131 Z47362	46		992.0	4545.0	992.0	248.0	6777.0	3.7
C08	8/02	55-43	163-18	X18548 Z47397	47		1395.0	1085.0	620.0	465.0	3566.0	13.0
C09	6/12	55-40	162-49	Y34080 Z47210	27	4.7	323.0	1613.0	129.0	0.0	2065.0	0.0
C18	7/02	55-44	168-11	Y34937 Z49217	73	3.9	0.0	256.0	0.0	0.0	256.0	0.0
D01	6/26	56-03	167-38	X18513 Z49070	76	4.0	1724.0	10575.0	345.0	172.0	12816.0	1.3
D02	6/26	55-59	167-00	X18518 Z48829	73	3.4	80.0	240.0	80.0	160.0	560.0	28.6
D03	6/20	56-03	166-25	X18552 Z48620	68	4.1	1911.0	1146.0	127.0	127.0	3312.0	3.8
D04	6/19	55-59	165-46	X18551 Z48366	57	4.0	902.0	410.0	82.0	0.0	1394.0	0.0
D05	6/19	55-58	165-11	X18559 Z48135	55	3.4	2500.0	2569.0	0.0	0.0	5069.0	0.0
D06	6/17	55-59	164-32	Y34290 Z47885	50	2.6	10328.0	10902.0	0.0	0.0	21230.0	0.0
D07	6/15	56-06	164-03	Y34180 Z47695	51		5163.0	6471.0	0.0	0.0	11634.0	0.0
D08	8/01	55-59	163-20	Y34090 Z47413	47		1967.0	1967.0	410.0	410.0	4754.0	8.6
D08	8/01	55-59	163-25	Y34100 Z47444	47		887.0	1371.0	81.0	242.0	2581.0	9.4
D08	6/11	56-00	163-23	Y34093 Z47435	48	2.4	1825.0	2460.0	556.0	79.0	4920.0	1.6
D08	8/01	55-58	163-18	Y34085 Z47397	49		840.0	1092.0	420.0	588.0	2941.0	20.0
D08	8/01	55-59	163-25	X18589 Z47442	50	3.2	738.0	492.0	246.0	492.0	1968.0	25.0
D09	6/12	55-59	162-49	Y34003 Z47208	44	2.6	144.0	647.0	1223.0	288.0	2302.0	12.5
D10	6/03	55-59	161-58	X18605 Z46875	28	4.2	0.0	74.0	0.0	0.0	74.0	0.0
D10	6/11	56-00	162-13	Y33907 Z46970	34	3.4	244.0	325.0	163.0	0.0	732.0	0.0
D11	6/03	56-03	161-40	X18615 Z46756	26	4.2	106.0	532.0	0.0	106.0	744.0	14.2
D18	7/02	56-00	168-11	Y34912 Z49261	80	3.9	508.0	339.0	85.0	0.0	932.0	0.0
E01	6/26	56-22	167-38	X18596 Z49108	70	3.5	638.0	993.0	0.0	0.0	1631.0	0.0
E02	6/26	56-19	167-02	X18596 Z48875	61	3.3	547.0	859.0	78.0	0.0	1485.0	0.0
E03	6/20	56-19	166-23	X18608 Z48622	58	3.9	919.0	108.0	216.0	162.0	1405.0	11.5
E04	6/19	56-19	165-48	X18615 Z48394	50	2.1	6587.0	5079.0	0.0	159.0	12063.0	1.3
E05	6/19	56-22	165-04	Y34289 Z48104	48	1.6	2000.0	1154.0	231.0	0.0	3385.0	0.0
E06	6/17	56-20	164-33	Y34209 Z47901	47	1.3	5736.0	8062.0	78.0	78.0	13953.0	0.6
E07	6/15	56-23	164-01	Y34101 Z47690	48	2.3	1917.0	1750.0	250.0	83.0	4000.0	2.1
E08	6/12	56-21	163-23	Y34000 Z47430	46	1.8	756.0	1513.0	252.0	0.0	2521.0	0.0
E09	6/12	56-18	162-50	Y33924 Z47212	45		698.0	543.0	155.0	78.0	1473.0	5.3
E10	6/11	56-19	162-11	Y33818 Z46955	41	2.2	1181.0	2441.0	79.0	315.0	4016.0	7.8
E11	6/08	56-20	161-36	Y33723 Z46721	37	2.9	226.0	0.0	526.0	0.0	752.0	0.0
E11	6/03	56-12	161-28	X18634 Z46673	30		155.0	310.0	78.0	0.0	543.0	0.0
E12	6/07	56-20	160-58	Y33631 Z46472	28	3.5	86.0	172.0	86.0	0.0	345.0	0.0
E13	6/04	56-27	160-37	X18664 Z46329	29		0.0	163.0	0.0	0.0	163.0	0.0
E18	7/02	56-19	168-11	Y34874 Z49306	82	3.7	9127.0	7937.0	159.0	0.0	17222.0	0.0
E19	7/02	56-20	168-54	Y34993 Z49566	73	4.0	0.0	222.0	0.0	0.0	222.0	0.0
E20	7/03	56-23	169-27	Y35069 Z49752	69	3.7	1481.0	1852.0	123.0	0.0	3456.0	0.0
E21	7/02	56-20	170-03	X18407 Z49900	61	3.5	15400.0	11467.0	67.0	0.0	26933.0	0.0
E22	7/11	56-21	170-41	X18275 Y35135	64	3.9	2290.0	1374.0	0.0	0.0	3664.0	0.0
F01	6/26	56-42	167-40	X18668 Z49144	53	2.6	267.0	400.0	667.0	133.0	1467.0	9.1
F02	6/26	56-39	167-04	Y34589 Z48904	51	2.9	2500.0	3106.0	0.0	76.0	5682.0	1.3
F03	6/21	56-42	166-21	X18674 Z48622	45	2.0	2628.0	1168.0	0.0	0.0	3796.0	0.0
F04	6/19	56-39	165-50	X18667 Z48417	42	1.8	10992.0	5124.0	826.0	248.0	17190.0	1.4
F05	6/18	56-39	165-12	Y34233 Z48162	43	1.0	1111.0	963.0	148.0	148.0	2370.0	6.2
F06	6/17	56-40	164-35	Y34120 Z47916	40	1.5	923.0	2385.0	231.0	0.0	3538.0	0.0
F07	6/15	56-41	163-58	Y34005 Z47667	42	2.0	2742.0	484.0	403.0	242.0	3871.0	6.3
F08	6/12	56-40	163-22	Y33912 Z47429	40	1.4	2541.0	1393.0	1148.0	164.0	5246.0	3.1
F09	6/11	56-39	162-47	Y33818 Z47189	41		1818.0	909.0	606.0	152.0	3485.0	4.4
F10	6/10	56-40	162-10	Y33717 Z46944	40	1.2	1538.0	1026.0	598.0	85.0	3247.0	2.6
F11	6/08	56-40	161-35	Y33626 Z46707	50	1.9	683.0	186.0	62.0	186.0	1118.0	16.6
F12	6/07	56-40	160-57	Y33533 Z46455	37	2.2	1345.0	504.0	1261.0	672.0	3782.0	17.8
F13	6/07	56-39	160-21	Y33453 Z46214	32	2.5	0.0	0.0	60.0	0.0	60.0	0.0
F13	6/04	56-39	160-14	X18681 Z46170	30	3.6	0.0	145.0	72.0	0.0	217.0	0.0
F13	6/04	56-32	160-24	X18671 Z46237	26		0.0	85.0	0.0	0.0	85.0	0.0
F18	7/01	56-40	168-17	Y34829 Z49383	58	2.6	1102.0	763.0	254.0	85.0	2204.0	3.9
F19	7/02	56-37	168-47	Y34937 Z49569	61		2885.0	288.0	481.0	0.0	3654.0	0.0

NOTE:PRE-RECRUIT = 4.3-5.5 IN. WIDTH;LEGAL = 5.5 IN. OR GREATER IN WIDTH

TABLE 9 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE				
								MALES (SEE NOTE)			
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
F20	7/02	56-30	169-09	Y35017 Z49682	54	2.9	323.0	645.0	161.0	0.0	1129.0	0.0
F20	7/01	56-49	169-17	Y35000 Z49778	45	2.2	5175.0	263.0	439.0	175.0	6052.0	2.9
F20	7/03	56-40	169-29	Y35057 Z49827	43		9390.0	10488.0	1585.0	610.0	22073.0	2.8
F21	7/03	56-49	169-51	Y35099 Z49978	39	3.5	7429.0	12857.0	9714.0	4857.0	34858.0	13.9
F21	7/02	56-37	170-07	X18527 Z49995	56	3.5	3116.0	4420.0	72.0	0.0	7609.0	0.0
F22	7/11	56-39	170-43	X18400 Y35128	62	3.4	15645.0	14531.0	78.0	0.0	30254.0	0.0
F23	7/11	56-39	171-23	X18178 Y35066	67	4.0	1709.0	1111.0	0.0	0.0	2820.0	0.0
F24	7/11	56-39	171-53	X17998 Y35006	68	3.8	2985.0	2388.0	0.0	0.0	5373.0	0.0
F25	7/11	56-40	172-32	X17750 Y34915	74	4.0	1500.0	583.0	0.0	0.0	2083.0	0.0
G01	6/27	57-01	167-42	X18718 Z49162	43	1.8	882.0	662.0	147.0	0.0	1691.0	0.0
G02	6/26	56-59	167-04	Y34494 Z48912	40	1.6	54069.0	69239.0	0.0	0.0	123308.0	0.0
G03	6/21	57-05	166-29	X18720 Z48669	41	1.1	1825.0	1095.0	73.0	0.0	2993.0	0.0
G04	6/20	56-59	165-51	X18708 Z48418	38	0.6	1695.0	3814.0	0.0	0.0	5509.0	0.0
G05	6/18	57-00	165-13	Y34131 Z48167	40	1.3	2014.0	2446.0	4532.0	216.0	9208.0	2.3
G06	6/17	56-59	164-35	Y34018 Z47911	38	0.5	6050.0	6218.0	1261.0	0.0	13529.0	0.0
G07	6/15	57-01	163-56	Y33893 Z47646	38	1.1	15195.0	7662.0	5065.0	0.0	27922.0	0.0
G08	6/12	57-00	163-23	Y33808 Z47424	35	0.5	4400.0	2640.0	880.0	0.0	7920.0	0.0
G09	6/11	56-59	162-47	Y33712 Z47186	34	1.1	7172.0	4069.0	3793.0	207.0	15241.0	1.4
G10	6/10	57-00	162-09	Y33610 Z46933	33	2.1	43153.0	7530.0	3765.0	0.0	54448.0	0.0
G11	6/08	57-01	161-33	Y33513 Z46691	38	1.9	7712.0	3137.0	4052.0	654.0	15555.0	4.2
G12	6/08	56-59	160-57	Y33434 Z46449	33	2.5	1261.0	588.0	504.0	420.0	2774.0	15.1
G13	6/07	56-58	160-21	Y33354 Z46209	35	2.6	769.0	559.0	769.0	350.0	2447.0	14.3
G14	6/07	57-00	159-41	Y33254 Z45935	30	3.5	1587.0	2778.0	1667.0	0.0	6031.0	0.0
G18	7/01	57-00	168-20	Y34750 Z49414	43	1.6	732.0	488.0	81.0	0.0	1301.0	0.0
G19	7/01	56-50	168-37	Y34860 Z49525	52	1.9	331.0	83.0	165.0	0.0	579.0	0.0
G19	7/01	57-10	168-36	Y34758 Z49522	41	2.2	1349.0	1190.0	159.0	0.0	2698.0	0.0
G19	7/01	56-59	168-57	Y34890 Z49660	45	1.8	1460.0	1898.0	511.0	146.0	4015.0	3.6
G20	7/01	57-09	169-19	Y34924 Z49810	40	1.7	1208.0	1678.0	470.0	201.0	3557.0	5.7
G20	7/05	57-02	169-35	Y35016 Z49912	33	1.8	32802.0	33689.0	17622.0	8293.0	92406.0	9.0
G21	7/05	57-10	169-53	Y35043 Z50032	27	4.1	18309.0	53958.0	248.0	83.0	72597.0	0.1
G21	7/03	57-00	170-10	X18690 Y35133	37	3.9	37281.0	47480.0	2598.0	1417.0	88777.0	1.6
G22	7/04	57-06	170-28	X18654 Y35114	32	4.1	70410.0	106847.0	10877.0	1919.0	190053.0	1.0
G22	7/03	56-50	170-30	X18544 Z50125	57	3.5	12518.0	24820.0	432.0	0.0	37770.0	0.0
G22	7/10	57-01	170-46	X18517 Y35089	51	3.2	4733.0	5420.0	76.0	76.0	10306.0	0.7
G23	7/10	56-59	171-23	X18273 Y35005	62	3.9	274.0	342.0	0.0	0.0	616.0	0.0
G24	7/11	56-59	172-01	X18024 Y34906	64	3.7	2773.0	924.0	0.0	0.0	3697.0	0.0
G26	7/14	57-00	173-14	X17555 Y34725	76	3.5	2269.0	2353.0	0.0	0.0	4622.0	0.0
H01	6/27	57-18	167-43	X18744 Z49158	41	1.0	376.0	902.0	0.0	0.0	1278.0	0.0
H02	6/27	57-19	167-06	Y34377 Z48908	38	0.4	0.0	3984.0	81.0	0.0	4065.0	0.0
H03	6/21	57-24	166-28	X18743 Z48651	38	1.1	299.0	838.0	0.0	0.0	1137.0	0.0
H04	6/20	57-19	165-52	Y34135 Z48411	36	0.9	79.0	1496.0	630.0	79.0	2284.0	3.5
H05	6/18	57-19	165-13	Y34014 Z48154	38	0.9	2238.0	0.0	0.0	0.0	16574.0	0.0
H06	6/17	57-20	164-35	Y33898 Z47899	35	0.5	21872.0	30040.0	2276.0	0.0	54187.0	0.0
H07	6/16	57-17	163-56	Y33799 Z47637	36	1.0	20156.0	19600.0	2818.0	0.0	42575.0	0.0
H08	6/12	57-20	163-23	Y33693 Z47416	27	1.8	4063.0	4531.0	781.0	0.0	9376.0	0.0
H09	6/11	57-18	162-47	Y33602 Z47175	27		4103.0	5321.0	1603.0	64.0	11090.0	0.6
H10	6/10	57-20	162-09	Y33496 Z46921	27	2.4	887.0	806.0	242.0	81.0	2016.0	4.0
H11	6/09	57-22	161-31	Y33389 Z46668	32	2.3	8688.0	17210.0	7376.0	1513.0	34787.0	4.3
H12	6/08	57-20	160-55	Y33316 Z46430	33	2.7	6016.0	1545.0	1545.0	163.0	9268.0	1.8
H13	6/07	57-21	160-19	Y33227 Z46185	34	3.1	19148.0	10972.0	34346.0	18127.0	82593.0	21.9
H14	6/06	57-20	159-38	Y33142 Z45915	30	3.6	480.0	1600.0	2640.0	160.0	4880.0	3.3
H15	6/05	57-20	159-04	X18725 Z45683	28	3.4	336.0	1597.0	588.0	0.0	2521.0	0.0
H18	7/01	57-20	168-23	Y34642 Z49418	40	2.4	83.0	250.0	0.0	0.0	333.0	0.0
H19	7/01	57-19	169-00	Y34777 Z49662	40	1.8	2992.0	3150.0	0.0	0.0	6142.0	0.0
H20	7/01	57-29	169-20	Y34764 Z49758	40	1.7	488.0	976.0	81.0	163.0	1708.0	9.5
H20	7/05	57-21	169-34	Y34884 Z49877	35	1.8	4253.0	7636.0	4084.0	1598.0	17571.0	9.1
H21	7/05	57-29	169-57	Y34861 Z49962	37	1.1	7094.0	2479.0	769.0	85.0	10427.0	0.8

NOTE:PRE-RECRUIT = 4.3-5.5 IN. WIDTH;LEGAL = 5.5 IN. OR GREATER IN WIDTH

TABLE 9 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE					
								MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
H21	7/04	57-16	170-16	X18711 Y35043	30	4.4	3936.0	7340.0	106.0	0.0	11383.0	0.0
H22	7/05	57-29	170-33	X18592 Y34888	42	2.7	840.0	611.0	305.0	76.0	1832.0	4.1
H22	7/10	57-20	170-51	X18516 Y34942	44	3.4	8720.0	18880.0	1120.0	480.0	29200.0	1.6
H23	7/10	57-18	171-12	X18386 Y34917	57	3.5	2177.0	403.0	0.0	0.0	2580.0	0.0
H24	7/12	57-20	172-06	X18042 Y34769	59	3.1	1053.0	902.0	0.0	0.0	1955.0	0.0
H25	7/11	57-19	172-41	X17813 Y34692	65	3.4	515.0	882.0	0.0	0.0	1397.0	0.0
H26	7/14	57-20	173-20	X17569 Y34595	66	3.5	1923.0	2308.0	0.0	0.0	4231.0	0.0
I01	6/27	57-41	167-46	Y34350 Z49126	35	1.5	217.0	725.0	1159.0	72.0	2174.0	3.3
I02	6/27	57-39	167-07	Y34239 Z48883	36	0.4	156.0	313.0	156.0	78.0	703.0	11.1
I03	6/21	57-38	166-29	X18750 Z46632	37	1.7	0.0	270.0	450.0	0.0	721.0	0.0
I04	6/20	57-39	165-53	Y34002 Z48393	34	1.6	0.0	9250.0	0.0	0.0	9250.0	0.0
I05	6/18	57-37	165-14	Y33895 Z48140	35	0.7	2439.0	4756.0	122.0	0.0	7317.0	0.0
I06	6/16	57-40	164-36	Y33769 Z47889	28	1.7	2381.0	3730.0	159.0	0.0	6587.0	0.0
I07	6/16	57-42	163-58	Y33646 Z47631	41	2.2	1284.0	1284.0	0.0	0.0	2568.0	0.0
I08	6/12	57-39	163-21	Y33563 Z47393	24	2.4	985.0	1061.0	0.0	0.0	2046.0	0.0
I09	6/11	57-40	162-46	Y33464 Z47155	25	3.0	129.0	323.0	65.0	0.0	516.0	0.0
I10	6/10	57-40	162-07	Y33368 Z46900	25	3.3	246.0	410.0	0.0	0.0	656.0	0.0
I11	6/09	57-41	161-30	Y33272 Z46651	29	3.0	333.0	67.0	67.0	0.0	466.0	0.0
I12	6/09	57-41	160-54	Y33188 Z46412	30	2.2	9280.0	8720.0	3760.0	1280.0	23280.0	5.5
I13	6/06	57-39	160-16	Y33114 Z46162	31	3.2	2500.0	6316.0	4145.0	395.0	13355.0	3.0
I14	6/06	57-40	159-37	Y33023 Z45900	26	4.0	569.0	244.0	0.0	81.0	976.0	8.3
I15	6/05	57-41	159-00	X18738 Z45660	25	4.4	0.0	0.0	136.0	0.0	136.0	0.0
I18	6/30	57-40	168-24	Y34474 Z49367	38	1.8	81.0	163.0	488.0	163.0	894.0	18.2
I19	7/01	57-30	168-44	Y34635 Z49531	38	2.2	424.0	424.0	85.0	0.0	932.0	0.0
I19	6/30	57-39	169-01	Y34612 Z49606	38	2.2	0.0	79.0	79.0	0.0	157.0	0.0
I20	7/06	57-40	169-37	Y34692 Z49799	37	1.9	880.0	2160.0	640.0	160.0	3840.0	4.2
I20	7/06	57-49	169-23	Y34566 Z49678	34	2.0	159.0	714.0	0.0	0.0	873.0	0.0
I21	7/05	57-40	170-17	X18610 Y34749	41	1.5	4133.0	1533.0	67.0	0.0	5733.0	0.0
I22	7/10	57-40	170-53	X18463 Y34743	46	2.7	4921.0	3175.0	79.0	0.0	8175.0	0.0
I23	7/10	57-38	171-32	X18253 Y34696	57	2.5	315.0	157.0	0.0	0.0	472.0	0.0
I24	7/12	57-39	172-09	X18032 Y34616	58	2.5	86.0	603.0	0.0	0.0	689.0	0.0
I25	7/12	57-42	172-46	X17806 Y34511	67	3.7	6694.0	5484.0	0.0	0.0	12178.0	0.0
I26	7/14	57-41	173-20	X17598 Y34450	77	3.6	15410.0	12454.0	0.0	0.0	27864.0	0.0
J01	6/27	58-00	167-48	Y34186 Z49078	37	0.7	0.0	2639.0	764.0	0.0	3403.0	0.0
J02	6/27	57-59	167-10	Y34079 Z48848	34	0.9	0.0	813.0	244.0	81.0	1138.0	7.1
J03	6/21	57-55	166-28	Y33986 Z48594	32	1.8	1135.0	6099.0	0.0	0.0	7234.0	0.0
J04	6/20	57-59	165-53	Y33848 Z48360	30	2.2	0.0	2152.0	0.0	0.0	2152.0	0.0
J05	6/18	58-02	165-14	Y33716 Z48105	28	3.2	388.0	155.0	0.0	0.0	543.0	0.0
J06	6/16	58-00	164-36	Y33623 Z47860	24	2.8	149.0	373.0	0.0	0.0	522.0	0.0
J07	6/16	58-03	164-03	Y33507 Z47642	26	2.6	207.0	276.0	0.0	0.0	483.0	0.0
J08	6/13	58-00	163-22	Y33420 Z47376	23	3.0	0.0	76.0	0.0	0.0	76.0	0.0
J10	6/10	57-59	162-07	Y33241 Z46885	20	3.1	85.0	0.0	0.0	0.0	85.0	0.0
J11	6/09	57-59	161-29	Y33152 Z46640	30		74.0	0.0	0.0	0.0	74.0	0.0
J12	6/09	57-59	160-51	Y33063 Z46387	23	3.4	79.0	472.0	0.0	0.0	630.0	0.0
J13	6/06	58-00	160-12	Y32977 Z46133	28	2.9	0.0	77.0	0.0	0.0	77.0	0.0
J18	6/30	58-00	168-26	Y34293 Z49303	37	0.6	132.0	922.0	1580.0	263.0	2897.0	9.1
J19	6/30	57-50	168-44	Y34449 Z49457	38	0.7	169.0	85.0	169.0	0.0	423.0	0.0
J19	6/30	57-55	169-03	Y34443 Z49534	38	1.0	0.0	141.0	141.0	0.0	282.0	0.0
J20	7/06	57-59	169-41	Y34481 Z49703	37	0.9	896.0	2761.0	1045.0	149.0	4851.0	3.1
J21	7/05	58-00	170-16	X18534 Y34512	42	-0.2	1622.0	3514.0	2342.0	90.0	7568.0	1.2
J21	7/05	57-50	169-59	X18620 Y34613	41	0.6	47316.0	21316.0	1842.0	526.0	71000.0	0.7
J22	7/09	58-00	170-57	Y34506 Z49933	46	2.1	148.0	370.0	0.0	0.0	518.0	0.0
J22	7/05	57-51	170-39	X18488 Y34622	45	1.5	376.0	827.0	75.0	150.0	1429.0	10.5
J23	7/10	57-58	171-35	X18203 Y34486	55	1.8	238.0	238.0	0.0	0.0	476.0	0.0
J24	7/12	57-59	172-12	X17999 Y34424	56	2.0	814.0	581.0	0.0	0.0	1395.0	0.0
J25	7/12	58-01	172-51	X17778 Y34341	61	2.2	1695.0	1017.0	85.0	0.0	2797.0	0.0
J26	7/14	58-08	173-20	X17609 Y34229	70	3.5	442.0	973.0	0.0	0.0	1415.0	0.0

NOTE:PRE-RECRUIT = 4.3-5.5 IN. WIDTH;LEGAL = 5.5 IN. OR GREATER IN WIDTH

TABLE 9 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE				
								MALES (SEE NOTE)			
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
K01	6/27	58-19	167-49	Y34003 Z49016	34	1.6	0.0	1600.0	0.0	0.0	1600.0	0.0
K02	6/27	58-19	167-11	Y33895 Z48791	27	2.0	154.0	231.0	0.0	0.0	385.0	0.0
K03	6/22	58-18	166-34	X18728 Z48572	27	2.0	136.0	1769.0	0.0	0.0	1905.0	0.0
K05	6/18	58-19	165-16	Y33576 Z48082	25	3.0	0.0	72.0	0.0	0.0	72.0	0.0
K06	6/16	58-20	164-37	Y33469 Z47838	23	2.7	744.0	826.0	0.0	0.0	1570.0	0.0
K18	6/30	58-20	168-28	Y34087 Z49222	35	1.1	0.0	400.0	160.0	0.0	560.0	0.0
K19	6/30	58-17	169-06	Y34207 Z49435	38	1.2	0.0	4114.0	949.0	0.0	5063.0	0.0
K20	7/06	58-20	169-44	Y34230 Z49582	37	0.9	157.0	1890.0	79.0	0.0	2126.0	0.0
K21	7/06	58-18	170-20	X18454 Y34286	42	-0.1	169.0	1610.0	593.0	85.0	2457.0	3.5
K22	7/09	58-20	171-01	Y34267 Z49818	45	-0.3	726.0	1290.0	81.0	0.0	2097.0	0.0
K23	7/10	58-18	171-30	X18180 Y34279	54	1.8	2583.0	1417.0	0.0	0.0	4000.0	0.0
K24	7/13	58-20	172-18	X17941 Y34209	56	1.8	2633.0	4115.0	339.0	0.0	7087.0	0.0
K25	7/12	58-21	172-56	X17739 Y34141	62	2.0	1418.0	1045.0	149.0	0.0	2612.0	0.0
K27	7/14	58-21	174-00	X17384 Y34048	68		1328.0	1406.0	78.0	0.0	2812.0	0.0
L13	6/06	58-42	160-02	Y32679 Z46077	16		0.0	130.0	0.0	0.0	130.0	0.0
L18	6/30	58-39	168-30	Y33877 Z49136	29	2.4	82.0	82.0	0.0	0.0	164.0	0.0
L19	6/30	58-35	169-07	Y33990 Z49334	36	2.0	242.0	2581.0	242.0	0.0	3065.0	0.0
L20	7/06	58-39	169-47	Y34003 Z49476	36	1.2	167.0	1083.0	83.0	0.0	1334.0	0.0
L21	7/06	58-39	170-26	X18358 Y34031	42	0.4	0.0	497.0	302.0	62.0	861.0	7.2
L22	7/09	58-40	171-05	Y34028 Z49705	44	-1.1	1322.0	6114.0	0.0	0.0	7436.0	0.0
L23	7/09	58-40	171-43	X18063 Y34016	53	0.3	164.0	0.0	0.0	0.0	164.0	0.0
L24	7/13	58-42	172-22	X17881 Y33964	55	1.0	732.0	488.0	0.0	0.0	1220.0	0.0
L25	7/12	58-40	173-00	X17699 Y33952	63	2.0	952.0	1156.0	68.0	0.0	2176.0	0.0
L26	7/23	58-41	173-38	X17502 Y33889	69	2.8	1098.0	1341.0	0.0	0.0	2439.0	0.0
L27	7/23	58-41	174-22	X17270 Y33841	97	3.5	0.0	630.0	0.0	0.0	630.0	0.0
L28	7/23	58-43	174-46	X17142 Y33784	86	3.5	119.0	238.0	0.0	0.0	357.0	0.0
L29	7/24	58-38	175-28	X16911 Y33769	76	2.8	1667.0	1140.0	0.0	0.0	2807.0	0.0
L30	7/30	58-41	176-12	X16675 Y33687	75	2.9	4560.0	3840.0	0.0	0.0	8400.0	0.0
L31	7/30	58-41	176-51	X16463 Y33634	75	3.2	583.0	83.0	0.0	0.0	666.0	0.0
M19	6/30	58-55	169-11	Y33764 Z49241	33	2.2	0.0	156.0	0.0	0.0	156.0	0.0
M20	7/06	58-58	169-50	Y33772 Z49373	34	1.7	0.0	83.0	83.0	0.0	165.0	0.0
M22	7/09	58-59	171-08	Y33798 Z49597	41	-0.5	164.0	574.0	164.0	0.0	902.0	0.0
M23	7/09	59-00	171-47	X17995 Y33787	49	-0.7	0.0	263.0	0.0	88.0	351.0	25.1
M24	7/13	58-59	172-25	X17833 Y33779	53	0.5	168.0	168.0	0.0	0.0	336.0	0.0
M25	7/12	59-04	173-06	X17637 Y33690	60	1.5	75.0	301.0	75.0	0.0	451.0	0.0
M26	7/23	59-01	173-42	X17465 Y33696	64	1.9	4141.0	5313.0	156.0	0.0	9610.0	0.0
M27	7/23	59-00	174-24	X17259 Y33662	71	2.9	1318.0	465.0	0.0	0.0	1783.0	0.0
M28	7/24	58-59	175-00	X17073 Y33625	71	2.8	2880.0	1200.0	0.0	0.0	4080.0	0.0
M29	7/24	58-59	175-43	X16850 Y33580	75	2.4	1345.0	840.0	0.0	0.0	2185.0	0.0
M30	7/30	59-00	176-17	X16670 Y33528	75	2.5	2459.0	1393.0	0.0	0.0	3852.0	0.0
M31	7/30	58-59	176-58	X16456 Y33490	76	2.6	234.0	313.0	78.0	0.0	625.0	0.0
M32	7/30	59-00	177-33	X16276 Y33438	76	3.0	3051.0	2288.0	508.0	0.0	5848.0	0.0
N23	7/09	59-19	171-51	X17931 Y33564	45	-1.0	0.0	0.0	167.0	0.0	167.0	0.0
N24	7/13	59-19	172-31	X17770 Y33555	47	-0.9	250.0	83.0	83.0	0.0	417.0	0.0
N25	7/13	59-20	173-06	X17615 Y33520	56	1.1	175.0	614.0	351.0	0.0	1140.0	0.0
N25	7/13	59-28	172-53	X17656 Y33442	53	0.3	320.0	162.0	0.0	0.0	482.0	0.0
N26	7/23	59-20	173-48	X17423 Y33497	60	1.3	244.0	1220.0	0.0	0.0	1464.0	0.0
N27	7/23	59-17	174-28	X17234 Y33490	68	2.1	336.0	252.0	0.0	0.0	588.0	0.0
N28	7/24	59-19	175-06	X17046 Y33443	72	2.2	1875.0	1875.0	125.0	0.0	3875.0	0.0
N29	7/24	59-18	175-43	X16862 Y33410	77	2.2	703.0	2344.0	313.0	0.0	3359.0	0.0
N30	7/29	59-20	176-23	X16666 Y33356	74	2.9	3065.0	3710.0	0.0	0.0	6775.0	0.0
N31	7/29	59-20	177-04	X16461 Y33318	84	2.5	1009.0	826.0	0.0	0.0	1835.0	0.0
O22	7/08	59-40	171-13	Y33313 Z49378	39	-0.3	70.0	70.0	0.0	0.0	140.0	0.0
O23	7/09	59-48	172-14	X17773 Y33228	43	-1.0	0.0	352.0	352.0	0.0	705.0	0.0
O24	7/13	59-38	172-37	X17707 Y33340	48	-0.8	142.0	71.0	0.0	71.0	284.0	25.0
O24	7/20	59-49	172-54	Y33215 Z49534	43	-1.0	0.0	420.0	0.0	0.0	420.0	0.0
O25	7/13	59-39	173-12	X17557 Y33318	54	0.0	83.0	250.0	583.0	167.0	1083.0	15.4

NOTE:PRE-RECRUIT = 4.3-5.5 IN. WIDTH;LEGAL = 5.5 IN. OR GREATER IN WIDTH

TABLE 9 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE BAIRDI TANNER CRAB WERE TAKEN (CONTINUED)

								NUMBER PER SQUARE MILE				
								MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
025	7/13	59-30	173-27	X17506 Y33404	58	1.0	534.0	1985.0	2977.0	305.0	5801.0	5.3
026	7/23	59-40	173-53	X17378 Y33286	57	1.4	0.0	323.0	81.0	0.0	403.0	0.0
026	7/22	59-49	174-13	X17280 Y33180	58	1.2	0.0	0.0	81.0	0.0	81.0	0.0
027	7/23	59-34	174-31	X17210 Y33323	66	2.0	153.0	153.0	0.0	0.0	306.0	0.0
028	7/24	59-40	175-05	X17052 Y33245	68	1.8	575.0	1034.0	115.0	0.0	1724.0	0.0
029	7/27	59-41	175-50	X16839 Y33200	77	2.0	702.0	614.0	0.0	0.0	1316.0	0.0
030	7/29	59-40	176-32	X16641 Y33175	74	2.1	1969.0	2126.0	157.0	0.0	4252.0	0.0
031	7/29	59-40	177-08	X16468 Y33144	96	2.6	0.0	320.0	0.0	0.0	320.0	0.0
P23	7/08	60-00	171-59	X17802 Y33092	37	-0.2	0.0	93.0	0.0	0.0	93.0	0.0
P24	7/20	59-59	172-39	X17659 Y33107	36	-0.1	0.0	410.0	0.0	0.0	410.0	0.0
P25	7/20	60-03	173-19	X17492 Y33057	41	-0.4	189.0	94.0	0.0	0.0	283.0	0.0
P27	7/23	59-55	174-38	X17169 Y33113	62	1.6	238.0	159.0	0.0	0.0	397.0	0.0
P28	7/27	59-59	175-14	X17007 Y33051	64	1.2	81.0	163.0	0.0	0.0	244.0	0.0
P29	7/27	60-00	175-55	X16822 Y33027	73	1.8	704.0	493.0	0.0	0.0	1197.0	0.0
P30	7/29	60-00	176-43	X16607 Y32997	77	2.0	2422.0	2344.0	156.0	0.0	4922.0	0.0
P31	7/29	59-59	177-14	X16463 Y32980	76	2.1	1040.0	560.0	0.0	0.0	1600.0	0.0
P32	7/29	60-00	177-53	X16287 Y32953	80	2.0	1729.0	1880.0	0.0	0.0	3609.0	0.0
Q28	7/27	60-19	175-22	X16968 Y32857	61	0.8	407.0	325.0	0.0	0.0	732.0	0.0
Q31	7/29	60-21	177-23	X16446 Y32795	84	1.8	0.0	82.0	0.0	0.0	82.0	0.0
R28	7/27	60-39	175-27	X16945 Y32664	58	0.7	410.0	246.0	0.0	0.0	656.0	0.0
R30	7/29	60-39	176-45	X16622 Y32646	71	1.5	0.0	168.0	0.0	0.0	168.0	0.0
R31	7/28	60-38	177-35	X16416 Y32638	86	1.7	88.0	0.0	0.0	0.0	88.0	0.0
S30	7/28	61-00	176-57	X16584 Y32454	66	0.5	0.0	0.0	91.0	0.0	91.0	0.0
S31	7/28	60-59	177-36	X16428 Y32458	76	1.4	323.0	161.0	0.0	0.0	484.0	0.0
Z05	6/19	54-42	165-08	X18278 Z48030	47	4.1	744.0	826.0	0.0	0.0	1570.0	0.0

NOTE:PRE-RECRUIT = 4.3-5.5 IN. WIDTH;LEGAL = 5.5 IN. OR GREATER IN WIDTH

TABLE 10 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO TANNER CRAB WERE TAKEN

							NUMBER PER SQUARE MILE				
							MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
A03	6/20	55-01	166-18	X18289 Z48469	80	3.9	0.0	0.0	0.0	72.0	72.0	100.0
A04	6/18	55-00	165-44	Y34653 Z48268	70	3.9	0.0	0.0	74.0	147.0	221.0	66.5
A05	6/19	54-58	165-09	X18344 Z48057	62	4.2	0.0	73.0	146.0	146.0	365.0	40.0
B02	6/25	55-20	166-58	X18337 Z48736	76	3.5	0.0	0.0	0.0	167.0	167.0	100.0
B03	6/20	55-20	166-20	X18373 Z48515	75	3.7	0.0	0.0	61.0	0.0	61.0	0.0
B04	6/19	55-20	165-46	Y34612 Z48312	65	3.7	0.0	0.0	163.0	244.0	407.0	60.0
B05	6/19	55-19	165-10	X18422 Z48088	62	4.2	0.0	0.0	123.0	184.0	307.0	59.9
B06	6/18	55-20	164-35	Y34425 Z47871	56	4.2	0.0	156.0	234.0	313.0	703.0	44.5
C02	6/26	55-39	166-58	X18430 Z48783	74	3.4	0.0	0.0	0.0	263.0	263.0	100.0
C03	6/20	55-44	166-23	X18475 Z48578	73	5.0	0.0	0.0	0.0	71.0	71.0	100.0
C04	6/19	55-40	165-48	X18480 Z48350	64	4.0	0.0	78.0	0.0	0.0	78.0	0.0
C05	6/19	55-37	165-10	X18489 Z48111	62	3.5	0.0	0.0	0.0	70.0	70.0	100.0
C06	6/18	55-39	164-34	Y34366 Z47884	52	2.9	0.0	163.0	244.0	163.0	569.0	28.6
C07	6/15	55-42	164-00	Y34262 Z47665	53	2.3	0.0	0.0	152.0	227.0	379.0	59.9
C08	8/06	55-45	163-16	Y34131 Z47380	46		0.0	0.0	78.0	0.0	78.0	0.0
C08	8/06	55-44	163-17	Y34136 Z47388	46		0.0	75.0	75.0	75.0	226.0	33.2
C08	8/05	55-42	163-17	Y34145 Z47387	43		0.0	0.0	81.0	81.0	161.0	50.3
C08	8/04	55-45	163-17	Y34136 Z47391	46		0.0	0.0	99.0	99.0	198.0	50.0
C08	8/02	55-43	163-18	Y34143 Z47392	45		0.0	0.0	99.0	0.0	99.0	0.0
C08	6/11	55-40	163-23	Y34168 Z47424	43	2.8	0.0	0.0	79.0	79.0	157.0	50.3
D01	6/26	56-03	167-38	X18513 Z49070	76	4.0	115.0	57.0	0.0	57.0	230.0	24.8
D03	6/20	56-03	166-25	X18552 Z48620	68	4.1	0.0	0.0	64.0	127.0	191.0	66.5
D04	6/19	55-59	165-46	X18551 Z48366	57	4.0	0.0	0.0	0.0	246.0	246.0	100.0
D05	6/19	55-58	165-11	X18559 Z48135	55	3.4	0.0	0.0	69.0	0.0	69.0	0.0
D06	6/17	55-59	164-32	Y34290 Z47885	50	2.6	0.0	82.0	328.0	0.0	410.0	0.0
D07	6/15	56-06	164-03	Y34180 Z47695	51		0.0	0.0	131.0	0.0	131.0	0.0
D08	8/01	55-59	163-20	Y34090 Z47413	47		0.0	164.0	0.0	0.0	164.0	0.0
D08	8/01	55-59	163-25	Y34100 Z47444	47		0.0	81.0	0.0	0.0	81.0	0.0
D08	6/11	56-00	163-23	Y34093 Z47435	48	2.4	0.0	79.0	0.0	79.0	159.0	49.7
D08	8/01	55-59	163-25	X18589 Z47442	50	3.2	0.0	82.0	0.0	0.0	82.0	0.0
D09	6/12	55-59	162-49	Y34003 Z47208	44	2.6	0.0	0.0	72.0	72.0	144.0	50.0
D18	7/02	56-00	168-11	Y34912 Z49261	80	3.9	0.0	0.0	0.0	169.0	169.0	100.0
E01	6/26	56-22	167-38	X18596 Z49108	70	3.5	0.0	71.0	142.0	0.0	213.0	0.0
E02	6/26	56-19	167-02	X18596 Z48875	61	3.3	0.0	0.0	78.0	0.0	78.0	0.0
E03	6/20	56-19	166-23	X18608 Z48622	58	3.9	324.0	378.0	270.0	324.0	1297.0	25.0
E04	6/19	56-19	165-48	X18615 Z48394	50	2.1	79.0	635.0	317.0	238.0	1269.0	18.8
E05	6/19	56-22	165-04	Y34289 Z48104	48	1.6	0.0	77.0	77.0	154.0	308.0	50.0
E06	6/17	56-20	164-33	Y34209 Z47901	47	1.3	0.0	233.0	310.0	0.0	543.0	0.0
E07	6/15	56-23	164-01	Y34101 Z47690	48	2.3	0.0	167.0	0.0	0.0	167.0	0.0
E09	6/12	56-18	162-50	Y33924 Z47212	45		0.0	0.0	78.0	0.0	78.0	0.0
E10	6/11	56-19	162-11	Y33818 Z46955	41	2.2	0.0	0.0	79.0	0.0	79.0	0.0
E18	7/02	56-19	168-11	Y34874 Z49306	82	3.7	0.0	159.0	0.0	0.0	159.0	0.0
E21	7/02	56-20	170-03	X18407 Z49900	61	3.5	0.0	67.0	267.0	200.0	533.0	37.5
F01	6/26	56-42	167-40	X18668 Z49144	53	2.6	200.0	867.0	4400.0	4867.0	10333.0	47.1
F02	6/26	56-39	167-04	Y34589 Z48904	51	2.9	76.0	682.0	303.0	227.0	1288.0	17.6
F03	6/21	56-42	166-21	X18674 Z48622	45	2.0	365.0	1314.0	73.0	0.0	1752.0	0.0
F04	6/19	56-39	165-50	X18667 Z48417	42	1.8	165.0	909.0	496.0	0.0	1570.0	0.0
F05	6/18	56-39	165-12	Y34233 Z48162	43	1.0	0.0	296.0	74.0	222.0	593.0	37.4
F06	6/17	56-40	164-35	Y34120 Z47916	40	1.5	77.0	231.0	231.0	0.0	539.0	0.0
F07	6/15	56-41	163-58	Y34005 Z47667	42	2.0	0.0	0.0	81.0	242.0	323.0	74.9
F08	6/12	56-40	163-22	Y33912 Z47429	40	1.4	0.0	0.0	82.0	0.0	82.0	0.0
F10	6/10	56-40	162-10	Y33717 Z46944	40	1.2	0.0	0.0	0.0	85.0	85.0	100.0
F18	7/01	56-40	168-17	Y34829 Z49383	58	2.6	38767.0	4068.0	3559.0	2881.0	49275.0	5.8
F19	7/02	56-37	168-47	Y34937 Z49569	61		288.0	1923.0	2404.0	2404.0	7019.0	34.2
F20	7/01	56-49	169-17	Y35000 Z49778	45	2.2	175.0	1404.0	877.0	175.0	2631.0	6.7
F20	7/02	56-30	169-09	Y35017 Z49682	54	2.9	0.0	161.0	0.0	0.0	161.0	0.0
F20	7/03	56-40	169-29	Y35057 Z49827	43		0.0	1341.0	122.0	244.0	1707.0	14.3

NOTE:PRE-RECRUIT = 3.1-4.0 IN. WIDTH;LARGE = 4.0 IN. OR GREATER IN WIDTH

TABLE 10 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE				
							MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
F21	7/03	56-49	169-51	Y35099 Z49978	39	3.5	58328.0	24000.0	42286.0	8000.0	132614.0	6.0
F21	7/02	56-37	170-07	X18527 Z49995	56	3.5	0.0	0.0	145.0	0.0	145.0	0.0
F23	7/11	56-39	171-23	X18178 Y35066	67	4.0	342.0	171.0	0.0	342.0	855.0	40.0
G01	6/27	57-01	167-42	X18718 Z49162	43	1.8	147.0	2941.0	1618.0	368.0	5073.0	7.3
G02	6/26	56-59	167-04	Y34494 Z48912	40	1.6	4603.0	9365.0	1111.0	0.0	15079.0	0.0
G03	6/21	57-05	166-29	X18720 Z48669	41	1.1	657.0	5255.0	949.0	73.0	6934.0	1.1
G04	6/20	56-59	165-51	X18708 Z48418	38	0.6	3051.0	6695.0	1441.0	85.0	11271.0	0.8
G05	6/18	57-00	165-13	Y34131 Z48167	40	1.3	72.0	216.0	719.0	1511.0	2518.0	60.0
G06	6/17	56-59	164-35	Y34018 Z47911	38	0.5	0.0	1008.0	1092.0	756.0	2857.0	26.5
G07	6/15	57-01	163-56	Y33893 Z47646	38	1.1	0.0	0.0	325.0	65.0	390.0	16.7
G08	6/12	57-00	163-23	Y33808 Z47424	35	0.5	0.0	80.0	160.0	0.0	240.0	0.0
G18	7/01	57-00	168-20	Y34750 Z49414	43	1.6	407.0	4553.0	2764.0	3089.0	10814.0	28.6
G19	7/01	57-10	168-36	Y34758 Z49522	41	2.2	159.0	3016.0	3810.0	2857.0	9842.0	29.0
G19	7/01	56-50	168-37	Y34860 Z49525	52	1.9	44680.0	8099.0	3140.0	1983.0	57903.0	3.4
G19	7/01	56-59	168-57	Y34890 Z49660	45	1.8	584.0	3139.0	1460.0	1095.0	6277.0	17.4
G20	7/01	57-09	169-19	Y34924 Z49810	40	1.7	16913.0	6443.0	2685.0	940.0	26980.0	3.5
G20	7/05	57-02	169-35	Y35016 Z49912	33	1.8	10269.0	8525.0	1876.0	341.0	21011.0	1.6
G21	7/05	57-10	169-53	Y35043 Z50032	27	4.1	661.0	0.0	83.0	83.0	826.0	10.0
G21	7/03	57-00	170-10	X18690 Y35133	37	3.9	79.0	0.0	0.0	315.0	394.0	79.9
G22	7/03	56-50	170-30	X18544 Z50125	57	3.5	72.0	0.0	144.0	144.0	360.0	40.0
G22	7/10	57-01	170-46	X18517 Y35089	51	3.2	305.0	229.0	305.0	534.0	1374.0	38.9
G23	7/10	56-59	171-23	X18273 Y35005	62	3.9	137.0	0.0	411.0	1644.0	2192.0	75.0
G24	7/11	56-59	172-01	X18024 Y34906	64	3.7	0.0	84.0	0.0	0.0	84.0	0.0
H01	6/27	57-18	167-43	X18744 Z49158	41	1.0	1654.0	19248.0	5113.0	1504.0	27519.0	5.5
H02	6/27	57-19	167-06	Y34377 Z48908	38	0.4	232585.0	56450.0	3659.0	163.0	292856.0	0.1
H03	6/21	57-24	166-28	X18743 Z48651	38	1.1	72071.0	16537.0	2171.0	501.0	91280.0	0.5
H04	6/20	57-19	165-52	Y34135 Z48411	36	0.9	23922.0	12795.0	1194.0	171.0	38082.0	0.4
H05	6/18	57-19	165-13	Y34014 Z48154	38	0.9	1818.0	9397.0	17830.0	1205.0	30249.0	4.0
H06	6/17	57-20	164-35	Y33898 Z47899	35	0.5	1365.0	9558.0	52797.0	7282.0	71002.0	10.3
H07	6/16	57-17	163-56	Y33799 Z47637	36	1.0	0.0	333.0	1133.0	267.0	1733.0	15.4
H08	6/12	57-20	163-23	Y33693 Z47416	27	1.8	0.0	78.0	0.0	0.0	78.0	0.0
H11	6/09	57-22	161-31	Y33389 Z46668	32	2.3	0.0	60.0	0.0	0.0	60.0	0.0
H18	7/01	57-20	168-23	Y34642 Z49418	40	2.4	167.0	2000.0	1667.0	250.0	4084.0	6.1
H19	7/01	57-19	169-00	Y34777 Z49662	40	1.8	236.0	8504.0	2441.0	472.0	11653.0	4.1
H20	7/01	57-29	169-20	Y34764 Z49758	40	1.7	1301.0	2846.0	1707.0	650.0	6504.0	10.0
H20	7/05	57-21	169-34	Y34884 Z49877	35	1.8	3725.0	17048.0	13851.0	3907.0	38530.0	10.1
H21	7/05	57-29	169-57	Y34861 Z49962	37	1.1	4274.0	9231.0	5128.0	2393.0	21026.0	11.4
H22	7/10	57-20	170-51	X18516 Y34942	44	3.4	0.0	80.0	80.0	0.0	160.0	0.0
H22	7/05	57-29	170-33	X18592 Y34888	42	2.7	611.0	534.0	1450.0	2519.0	5115.0	49.2
H23	7/10	57-18	171-12	X18386 Y34917	57	3.5	0.0	161.0	968.0	1613.0	2742.0	58.8
H24	7/12	57-20	172-06	X18042 Y34769	59	3.1	0.0	75.0	526.0	1654.0	2256.0	73.3
I01	6/27	57-41	167-46	Y34350 Z49126	35	1.5	2246.0	7971.0	652.0	217.0	11087.0	2.0
I02	6/27	57-39	167-07	Y34239 Z48883	36	0.4	22180.0	10291.0	1396.0	0.0	33867.0	0.0
I03	6/21	57-38	166-29	X18750 Z46632	37	1.7	12072.0	22628.0	16522.0	1078.0	52299.0	2.1
I04	6/20	57-39	165-53	Y34002 Z48393	34	1.6	6404.0	146580.0	99618.0	8539.0	261140.0	3.3
I05	6/18	57-37	165-14	Y33895 Z48140	35	0.7	16341.0	131062.0	14017.0	0.0	161420.0	0.0
I06	6/16	57-40	164-36	Y33769 Z47889	28	1.7	317.0	873.0	476.0	159,0	1825.0	8.7
I12	6/09	57-41	160-54	Y33188 Z46412	30	2.2	0.0	0.0	80.0	0.0	80.0	0.0
I18	6/30	57-40	168-24	Y34474 Z49367	38	1.8	390108.0	53571.0	9051.0	325.0	453055.0	0.1
I19	6/30	57-39	169-01	Y34612 Z49606	38	2.2	1181.0	3622.0	6614.0	1417.0	12835.0	11.0
I19	7/01	57-30	168-44	Y34635 Z49531	38	2.2	1186.0	12034.0	4915.0	1356.0	19491.0	7.0
I20	7/06	57-49	169-23	Y34566 Z49678	34	2.0	3492.0	9524.0	5714.0	159.0	18889.0	0.8
I20	7/06	57-40	169-37	Y34692 Z49799	37	1.9	2560.0	2240.0	2000.0	960.0	7760.0	12.4
I21	7/05	57-40	170-17	X18610 Y34749	41	1.5	38480.0	9333.0	4400.0	1467.0	53680.0	2.7
I22	7/10	57-40	170-53	X18463 Y34743	46	2.7	12789.0	1349.0	1111.0	238.0	15487.0	1.5
I23	7/10	57-38	171-32	X18253 Y34696	57	2.5	0.0	0.0	1339.0	2047.0	3386.0	60.5
I24	7/12	57-39	172-09	X18032 Y34616	58	2.5	2931.0	0.0	948.0	1293.0	5172.0	25.0

NOTE:PRE-RECRUIT = 3.1-4.0 IN. WIDTH;LARGE = 4.0 IN. OR GREATER IN WIDTH

TABLE 10 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE				
							MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
I26	7/14	57-41	173-20	X17598 Y34450	77	3.6	2348.0	261.0	348.0	174.0	3131.0	5.6
J01	6/27	58-00	167-48	Y34186 Z49078	37	0.7	7917.0	20208.0	16042.0	625.0	44792.0	1.4
J02	6/27	57-59	167-10	Y34079 Z48848	34	0.9	69907.0	93267.0	11931.0	488.0	175593.0	0.3
J03	6/21	57-55	166-28	Y33986 Z48594	32	1.8	113467.0	321716.0	4407.0	0.0	439590.0	0.0
J04	6/20	57-59	165-53	Y33848 Z48360	30	2.2	14348.0	324975.0	9326.0	0.0	348649.0	0.0
J05	6/18	58-02	165-14	Y33716 Z48105	28	3.2	233.0	388.0	0.0	0.0	621.0	0.0
J18	6/30	58-00	168-26	Y34293 Z49303	37	0.6	87218.0	51497.0	37163.0	2654.0	178532.0	1.5
J19	6/30	57-50	168-44	Y34449 Z49457	38	0.7	21859.0	11695.0	3898.0	339.0	37791.0	0.9
J19	6/30	57-55	169-03	Y34443 Z49534	38	1.0	6479.0	3873.0	3239.0	211.0	13803.0	1.5
J20	7/06	57-59	169-41	Y34481 Z49703	37	0.9	2910.0	10149.0	19701.0	2985.0	35746.0	8.4
J21	7/05	58-00	170-16	X18534 Y34512	42	-0.2	15555.0	10000.0	10270.0	18108.0	53933.0	33.6
J21	7/05	57-50	169-59	X18620 Y34613	41	0.6	62991.0	21053.0	8684.0	7632.0	100359.0	7.6
J22	7/05	57-51	170-39	X18488 Y34622	45	1.5	1128.0	1654.0	2632.0	6692.0	12105.0	55.3
J22	7/09	58-00	170-57	Y34506 Z49933	46	2.1	148.0	444.0	741.0	296.0	1629.0	18.2
J23	7/10	57-58	171-35	X18203 Y34486	55	1.8	1905.0	2222.0	4762.0	1508.0	10397.0	14.5
J24	7/12	57-59	172-12	X17999 Y34424	56	2.0	597384.0	8721.0	9884.0	5233.0	621221.0	0.8
J25	7/12	58-01	172-51	X17778 Y34341	61	2.2	169.0	85.0	85.0	1017.0	1355.0	75.1
J26	7/14	58-08	173-20	X17609 Y34229	70	3.5	0.0	0.0	88.0	0.0	88.0	0.0
K01	6/27	58-19	167-49	Y34003 Z49016	34	1.6	629.0	2343.0	857.0	171.0	4000.0	4.3
K02	6/27	58-19	167-11	Y33895 Z48791	27	2.0	6000.0	16700.0	1229.0	538.0	24468.0	2.2
K03	6/22	58-18	166-34	X18728 Z48572	27	2.0	3741.0	68337.0	755.0	0.0	72833.0	0.0
K04	6/20	58-19	165-56	Y33690 Z48333	23	2.4	73.0	1533.0	0.0	0.0	1606.0	0.0
K18	6/30	58-20	168-28	Y34087 Z49222	35	1.1	4640.0	11040.0	6400.0	1760.0	23840.0	7.4
K19	6/30	58-17	169-06	Y34207 Z49435	38	1.2	77918.0	167027.0	45553.0	14235.0	304733.0	4.7
K20	7/06	58-20	169-44	Y34230 Z49582	37	0.9	15349.0	31966.0	25917.0	7008.0	80240.0	8.7
K21	7/06	58-18	170-20	X18454 Y34286	42	-0.1	68610.0	7964.0	36705.0	39129.0	152408.0	25.7
K22	7/09	58-20	171-01	Y34267 Z49818	45	-0.3	3629.0	6371.0	35513.0	66129.0	111642.0	59.2
K23	7/10	58-18	171-30	X18180 Y34279	54	1.8	500.0	167.0	250.0	250.0	1167.0	21.4
K24	7/13	58-20	172-18	X17941 Y34209	56	1.8	305190.0	24009.0	16551.0	3559.0	349309.0	1.0
K25	7/12	58-21	172-56	X17739 Y34141	62	2.0	149.0	75.0	373.0	522.0	1119.0	46.6
K27	7/14	58-21	174-00	X17384 Y34048	68		938.0	703.0	938.0	547.0	3126.0	17.5
L01	6/28	58-43	167-51	Y33753 Z48923	25	2.9	5152.0	4697.0	0.0	0.0	9849.0	0.0
L02	6/27	58-39	167-12	Y33696 Z48723	23	2.6	3383.0	4887.0	75.0	0.0	8345.0	0.0
L03	6/22	58-36	166-34	X18702 Z48514	24	2.4	549.0	2195.0	61.0	0.0	2805.0	0.0
L18	6/30	58-39	168-30	Y33877 Z49136	29	2.4	738.0	574.0	82.0	164.0	1558.0	10.5
L19	6/30	58-35	169-07	Y33990 Z49334	36	2.0	1048.0	6210.0	9839.0	4919.0	22016.0	22.3
L20	7/06	58-39	169-47	Y34003 Z49476	36	1.2	6083.0	19583.0	22083.0	10167.0	57916.0	17.6
L21	7/06	58-39	170-26	X18358 Y34031	42	0.4	7571.0	17543.0	38210.0	22109.0	85434.0	25.9
L22	7/09	58-40	171-05	Y34028 Z49705	44	-1.1	50323.0	22801.0	24784.0	6940.0	104848.0	6.6
L23	7/09	58-40	171-43	X18063 Y34016	53	0.3	100467.0	4672.0	6148.0	164.0	111451.0	0.1
L24	7/13	58-42	172-22	X17881 Y33964	55	1.0	36804.0	2602.0	7073.0	2114.0	48593.0	4.4
L25	7/12	58-40	173-00	X17699 Y33952	63	2.0	2925.0	476.0	476.0	408.0	4286.0	9.5
L26	7/23	58-41	173-38	X17502 Y33889	69	2.8	610.0	122.0	244.0	1463.0	2439.0	60.0
L29	7/24	58-38	175-28	X16911 Y33769	76	2.8	88.0	0.0	0.0	0.0	88.0	0.0
L30	7/30	58-41	176-12	X16675 Y33687	75	2.9	880.0	720.0	0.0	0.0	1600.0	0.0
L31	7/30	58-41	176-51	X16463 Y33634	75	3.2	167.0	0.0	0.0	0.0	167.0	0.0
M02	6/28	58-59	167-14	Y33487 Z48650	20	3.2	391.0	547.0	0.0	78.0	1016.0	7.7
M18	6/29	59-00	168-32	Y33638 Z49038	24	2.3	2149.0	2149.0	0.0	0.0	4298.0	0.0
M19	6/30	58-55	169-11	Y33764 Z49241	33	2.2	234.0	703.0	0.0	156.0	1093.0	14.3
M20	7/06	58-58	169-50	Y33772 Z49373	34	1.7	248.0	2149.0	1653.0	1157.0	5207.0	22.2
M21	7/06	59-00	170-29	X18276 Y33778	40	1.0	105000.0	47135.0	31423.0	3333.0	186891.0	1.8
M22	7/09	58-59	171-08	Y33798 Z49597	41	-0.5	53262.0	29919.0	39227.0	7978.0	130387.0	6.1
M23	7/09	59-00	171-47	X17995 Y33787	49	-0.7	42807.0	8947.0	14912.0	1404.0	68070.0	2.1
M24	7/13	58-59	172-25	X17833 Y33779	53	0.5	38147.0	3697.0	4622.0	2269.0	48735.0	4.7
M25	7/12	59-04	173-06	X17637 Y33690	60	1.5	1203.0	977.0	677.0	451.0	3308.0	13.6
M26	7/23	59-01	173-42	X17465 Y33696	64	1.9	4453.0	391.0	547.0	469.0	5859.0	8.0
M27	7/23	59-00	174-24	X17259 Y33662	71	2.9	0.0	0.0	0.0	78.0	78.0	100.0

NOTE:PRE-RECRUIT = 3.1-4.0 IN. WIDTH;LARGE = 4.0 IN. OR GREATER IN WIDTH

TABLE 10 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO TANNER CRAB WERE TAKEN (CONTINUED)

								NUMBER PER SQUARE MILE				
								MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
M28	7/24	58-59	175-00	X17073 Y33625	71	2.8	480.0	80.0	0.0	0.0	560.0	0.0
M29	7/24	58-59	175-43	X16850 Y33580	75	2.4	0.0	84.0	0.0	84.0	168.0	50.0
M30	7/30	59-00	176-17	X16670 Y33528	75	2.5	1066.0	492.0	0.0	0.0	1558.0	0.0
M31	7/30	58-59	176-58	X16456 Y33490	76	2.6	78.0	156.0	0.0	0.0	234.0	0.0
M32	7/30	59-00	177-33	X16276 Y33438	76	3.0	424.0	0.0	85.0	0.0	509.0	0.0
N01	6/28	59-20	167-54	Y33337 Z48764	21	3.2	570.0	570.0	0.0	0.0	1140.0	0.0
N18	6/29	59-20	168-34	Y33406 Z48946	21	3.3	894.0	813.0	0.0	0.0	1707.0	0.0
N19	6/29	59-21	169-14	Y33456 Z49108	28	2.3	13488.0	11783.0	155.9	0.0	25426.0	0.0
N20	7/07	59-19	169-52	Y33521 Z49259	32	1.6	5447.0	31951.0	6098.0	0.0	43496.0	0.0
N21	7/06	59-19	170-31	X18208 Y33554	39	1.2	32984.0	49499.0	27628.0	767.0	110878.0	0.7
N22	7/09	59-19	171-10	Y33560 Z49485	40	-0.2	415642.0	64275.0	28354.0	1833.0	510104.0	0.4
N23	7/09	59-19	171-51	X17931 Y33564	45	-1.0	92083.0	13500.0	14667.0	1500.0	121750.0	1.2
N24	7/13	59-19	172-31	X17770 Y33555	47	-0.9	42024.0	7500.0	15250.0	10000.0	74774.0	13.4
N25	7/13	59-20	173-06	X17615 Y33520	56	1.1	22333.0	24912.0	5088.0	1404.0	53737.0	2.6
N25	7/13	59-28	172-53	X17656 Y33442	53	0.3	9280.0	9573.0	15090.0	5192.0	39135.0	13.3
N26	7/23	59-20	173-48	X17423 Y33497	60	1.3	64190.0	2195.0	1301.0	650.0	68336.0	1.0
N27	7/23	59-17	174-28	X17234 Y33490	68	2.1	756.0	588.0	504.0	924.0	2773.0	33.3
N28	7/24	59-19	175-06	X17046 Y33443	72	2.2	250.0	0.0	375.0	625.0	1250.0	50.0
N29	7/24	59-18	175-43	X16862 Y33410	77	2.2	781.0	1172.0	625.0	781.0	3359.0	23.3
N30	7/29	59-20	176-23	X16666 Y33356	74	2.9	161.0	81.0	81.0	323.0	645.0	50.1
N31	7/29	59-20	177-04	X16461 Y33318	84	2.5	3578.0	917.0	0.0	0.0	4495.0	0.0
O18	6/29	59-40	168-37	Y33171 Z48855	20	3.2	391.0	391.0	0.0	0.0	782.0	0.0
O19	6/29	59-41	169-16	Y33217 Z49008	26	2.0	5714.0	3492.0	159.0	0.0	9365.0	0.0
O20	7/07	59-38	169-55	Y33284 Z49157	30	1.5	1024.0	13543.0	9291.0	0.0	23859.0	0.0
O21	7/06	59-40	170-33	X18135 Y33295	38	0.5	122720.0	141045.0	11062.0	0.0	274827.0	0.0
O22	7/08	59-40	171-13	Y33313 Z49378	39	-0.3	166863.0	59958.0	15684.0	211.0	242716.0	0.1
O23	7/09	59-36	171-53	X17881 Y33362	44	-0.7	48059.0	14559.0	10294.0	294.0	73206.0	0.4
O23	7/09	59-48	172-14	X17773 Y33228	43	-1.0	34545.0	57785.0	52852.0	1409.0	146591.0	1.0
O24	7/13	59-38	172-37	X17707 Y33340	48	-0.8	15830.0	14952.0	20873.0	5625.0	57280.0	9.8
O24	7/20	59-49	172-54	Y33215 Z49534	43	-1.0	508048.0	251309.0	7354.0	3361.0	770072.0	0.4
O25	7/13	59-39	173-12	X17557 Y33318	54	0.0	3667.0	4250.0	11750.0	10417.0	30084.0	34.6
O25	7/13	59-30	173-27	X17506 Y33404	58	1.0	3740.0	3206.0	4427.0	3511.0	14885.0	23.6
O26	7/23	59-40	173-53	X17378 Y33286	57	1.4	25363.0	7823.0	403.0	484.0	34073.0	1.4
O26	7/22	59-49	174-13	X17280 Y33180	58	1.2	19504.0	1870.0	2927.0	2114.0	26415.0	8.0
O27	7/23	59-34	174-31	X17210 Y33323	66	2.0	36365.0	1069.0	1985.0	1221.0	40640.0	3.0
O28	7/24	59-40	175-05	X17052 Y33245	68	1.8	112125.0	4023.0	1724.0	1724.0	119596.0	1.4
O29	7/27	59-41	175-50	X16839 Y33200	77	2.0	1140.0	439.0	2719.0	4035.0	8333.0	48.4
O30	7/29	59-40	176-32	X16641 Y33175	74	2.1	1181.0	1339.0	1575.0	2598.0	6693.0	38.8
O31	7/29	59-40	177-08	X16468 Y33144	96	2.6	80.0	0.0	160.0	0.0	240.0	0.0
P18	6/29	60-00	168-40	Y32936 Z48770	20	3.2	78.0	625.0	0.0	0.0	703.0	0.0
P19	6/29	60-00	169-19	Y32990 Z48921	26	1.8	5778.0	9333.0	0.0	0.0	15111.0	0.0
P20	7/07	59-59	169-58	Y33033 Z49055	28	1.6	80.0	1120.0	560.0	80.0	1840.0	4.3
P21	7/07	60-00	170-36	X18067 Y33051	36	0.4	195923.0	94789.0	7799.0	0.0	298511.0	0.0
P22	7/08	60-00	171-18	Y33073 Z49277	37	-0.4	460976.0	91047.0	18859.0	0.0	570882.0	0.0
P23	7/08	60-00	171-59	X17802 Y33092	37	-0.2	741.0	4630.0	2407.0	93.0	7871.0	1.2
P23	7/08	60-10	172-18	X17711 Y32975	32	1.9	1400.0	5900.0	0.0	0.0	7300.0	0.0
P24	7/20	60-09	172-58	X17563 Y32990	31		403.0	726.0	81.0	81.0	1290.0	6.3
P24	7/20	59-59	172-39	X17659 Y33107	36	-0.1	11803.0	12131.0	3115.0	656.0	27705.0	2.4
P25	7/20	60-03	173-19	X17492 Y33057	41	-0.4	17390.0	18365.0	1604.0	94.0	37453.0	0.3
P25	7/20	59-52	173-34	X17449 Y33172	53	-0.9	15042.0	9076.0	924.0	336.0	25378.0	1.3
P26	7/22	60-00	173-57	X17340 Y33081	53	0.1	2358.0	5122.0	3577.0	4878.0	15935.0	30.6
P26	7/22	60-10	174-19	X17239 Y32963	55	0.3	43959.0	43553.0	15213.0	10826.0	113551.0	9.5
P27	7/23	59-55	174-38	X17169 Y33113	62	1.6	2778.0	952.0	2778.0	1349.0	7857.0	17.2
P28	7/27	59-59	175-14	X17007 Y33051	64	1.2	232710.0	14807.0	8489.0	1974.0	257980.0	0.8
P29	7/27	60-00	175-55	X16822 Y33027	73	1.8	323027.0	3169.0	3451.0	1549.0	331196.0	0.5
P30	7/29	60-00	176-43	X16607 Y32997	77	2.0	2188.0	1641.0	3438.0	2266.0	9532.0	23.8
P31	7/29	59-59	177-14	X16463 Y32980	76	2.1	960.0	800.0	1280.0	1040.0	4080.0	25.5

NOTE:PRE-RECRUIT = 3.1-4.0 IN. WIDTH;LARGE = 4.0 IN. OR GREATER IN WIDTH

TABLE 10 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE OPILIO TANNER CRAB WERE TAKEN (CONTINUED)

							NUMBER PER SQUARE MILE				
							MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
P32	7/29	60-00	177-53	X16287 Y32953	80	2.0	1880.0	526.0	150.0	0.0	2557.0	0.0
Q01	6/29	60-19	167-59	Y32646 Z48514	17	5.6	0.0	88.0	0.0	0.0	88.0	0.0
Q18	6/29	60-19	168-40	Y32709 Z48679	18	3.6	234.0	781.0	0.0	0.0	1015.0	0.0
Q19	6/29	60-19	169-19	Y32757 Z48823	24	2.4	23907.0	85179.0	0.0	0.0	109086.0	0.0
Q20	7/07	60-19	170-02	Y32794 Z48963	27	1.2	93282.0	144676.0	3206.0	0.0	241164.0	0.0
Q21	7/07	60-20	170-40	X18000 Y32818	35	0.4	160463.0	179341.0	8091.0	0.0	347894.0	0.0
Q22	7/08	60-20	171-21	Y32839 Z49182	35	-0.7	158533.0	160850.0	14623.0	0.0	334006.0	0.0
Q23	7/08	60-18	172-06	X17734 Y32881	27	-0.5	826.0	3394.0	0.0	0.0	4220.0	0.0
Q25	7/20	60-20	173-24	X17450 Y32874	34	0.4	727.0	364.0	727.0	0.0	1818.0	0.0
Q26	7/22	60-20	174-04	X17291 Y32861	49	-1.3	37221.0	47805.0	4878.0	976.0	90880.0	1.1
Q27	7/22	60-20	174-40	X17142 Y32856	57	0.6	2481.0	17594.0	17594.0	24812.0	62481.0	39.7
Q28	7/27	60-19	175-22	X16968 Y32857	61	0.8	58911.0	9457.0	27920.0	4503.0	100791.0	4.5
Q29	7/27	60-22	176-03	X16796 Y32820	68	1.3	47826.0	2795.0	3354.0	1429.0	55404.0	2.6
Q30	7/29	60-16	176-41	X16626 Y32854	75	1.4	138022.0	4435.0	2957.0	1478.0	146892.0	1.0
Q31	7/29	60-21	177-23	X16446 Y32795	84	1.8	29867.0	5656.0	3115.0	902.0	39539.0	2.3
R22	7/08	60-40	171-26	Y32606 Z49090	33	0.2	58093.0	105787.0	2131.0	0.0	166011.0	0.0
R23	7/07	60-32	171-59	X17729 Y32719	35	-0.8	37082.0	71484.0	2681.0	0.0	111247.0	0.0
R24	7/20	60-39	172-49	X17543 Y32650	23		427.0	3846.0	427.0	0.0	4701.0	0.0
R25	7/21	60-41	173-30	X17395 Y32645	38	-0.8	741.0	185.0	370.0	0.0	1297.0	0.0
R26	7/22	60-40	174-08	X17255 Y32653	47	-1.2	154741.0	127027.0	5898.0	83.0	287748.0	0.0
R27	7/22	60-40	174-47	X17101 Y32660	55	-0.4	97704.0	67425.0	8510.0	655.0	174294.0	0.4
R28	7/27	60-39	175-27	X16945 Y32664	58	0.7	57018.0	20585.0	26349.0	5764.0	109716.0	5.3
R29	7/27	60-40	176-11	X16764 Y32642	67	0.8	12151.0	1702.0	11489.0	10426.0	35768.0	29.1
R30	7/29	60-39	176-45	X16622 Y32646	71	1.5	10252.0	9281.0	14800.0	4014.0	38347.0	10.5
R31	7/28	60-38	177-35	X16416 Y32638	86	1.7	151167.0	3421.0	5000.0	2895.0	162483.0	1.8
R32	7/28	60-40	178-09	X16274 Y32612	91	2.3	763.0	305.0	840.0	2595.0	4503.0	57.6
S22	7/08	60-58	171-28	Y32390 Z49004	32	-0.5	157414.0	311320.0	960.0	0.0	469694.0	0.0
S23	7/07	60-54	172-09	X17648 Y32468	36	-0.9	52050.0	117277.0	0.0	0.0	169327.0	0.0
S24	7/20	60-59	172-48	X17512 Y32431	36	-0.5	44879.0	106353.0	0.0	0.0	151232.0	0.0
S25	7/21	61-00	173-30	X17367 Y32430	43	-1.1	80518.0	78438.0	1307.0	0.0	160263.0	0.0
S26	7/22	61-00	174-08	X17233 Y32445	45	-1.5	70379.0	184148.0	5416.0	0.0	259944.0	0.0
S27	7/22	61-02	174-52	X17069 Y32433	51	-1.3	43740.0	63942.0	3045.0	0.0	110727.0	0.0
S28	7/27	60-59	175-34	X16913 Y32478	56	-1.0	122830.0	53239.0	9859.0	1479.0	187407.0	0.8
S29	7/27	61-01	176-17	X16742 Y32447	63	0.3	3228.0	8031.0	16063.0	4488.0	31811.0	14.1
S30	7/28	61-00	176-57	X16584 Y32454	66	0.5	12000.0	3000.0	3455.0	4000.0	22455.0	17.8
S31	7/28	60-59	177-36	X16428 Y32458	76	1.4	3790.0	4355.0	8468.0	5081.0	21693.0	23.4
T25	7/21	61-22	173-31	X17331 Y32192	41	-1.3	67923.0	104953.0	0.0	0.0	172876.0	0.0
T26	7/21	61-20	174-16	X17181 Y32241	42	-1.6	64875.0	119159.0	0.0	0.0	184034.0	0.0
T27	7/22	61-21	174-53	X17052 Y32242	48	-1.4	39480.0	88047.0	0.0	0.0	127527.0	0.0
T28	7/27	61-19	175-39	X16885 Y32271	53	-1.1	132943.0	81767.0	1703.0	1703.0	218117.0	0.8
T29	7/28	61-20	176-17	X16746 Y32268	60	0.9	18867.0	19590.0	3689.0	984.0	43129.0	2.3
T30	7/28	61-20	176-56	X16598 Y32276	63	1.5	167478.0	25677.0	9016.0	2903.0	205075.0	1.4
U25	7/21	61-39	173-29	X17317 Y32016	37	-1.6	221740.0	454461.0	0.0	0.0	676201.0	0.0
U26	7/21	61-40	174-24	X17135 Y32039	42	-1.6	75588.0	219164.0	0.0	0.0	294752.0	0.0
U27	7/22	61-39	175-00	X17015 Y32068	48	-1.5	91059.0	176523.0	0.0	0.0	267582.0	0.0
U28	7/28	61-40	175-45	X16858 Y32070	52	-1.5	292727.0	374119.0	4530.0	0.0	671376.0	0.0
U29	7/28	61-39	176-25	X16716 Y32093	57	-0.4	113965.0	140106.0	5317.0	873.0	260261.0	0.3
V24	7/21	61-59	173-30	X17285 Y31803	32	-1.6	96115.0	282658.0	0.0	0.0	378773.0	0.0
V26	7/21	62-00	174-22	X17123 Y31834	39	-1.6	241650.0	434856.0	0.0	0.0	676506.0	0.0
V26	7/21	61-55	174-53	X17029 Y31905	44	-1.5	106537.0	193345.0	0.0	0.0	299882.0	0.0
V28	7/28	61-59	175-54	X16823 Y31895	51	-1.5	52536.0	141411.0	2694.0	0.0	196641.0	0.0

NOTE:PRE-RECRUIT = 3.1-4.0 IN. WIDTH;LARGE = 4.0 IN. OR GREATER IN WIDTH

TABLE 11 DATA FROM THE 1988 EASTERN BERING SEA TRAWL SURVEY WHERE HAIR CRAB WERE TAKEN

							NUMBER PER SQUARE MILE					
								MALES (SEE NOTE)				
STA	DATE	LAT.	LONG.	LORAN C	DEPTH FMS	BOT. TEMP	FEMALES	SMALL	PRE-RECRUIT	LEGAL	TOTAL	% LEGAL
A04	6/18	54-50	165-42	Y34667 Z48241	84	3.8	0.0	78.0	0.0	78.0	156.0	50.0
C08	6/11	55-40	163-23	Y34168 Z47424	43	2.8	0.0	0.0	0.0	79.0	79.0	100.0
C08	8/06	55-45	163-16	Y34131 Z47380	46		0.0	0.0	0.0	78.0	78.0	100.0
C08	8/06	55-44	163-17	Y34136 Z47388	46		75.0	0.0	0.0	0.0	75.0	0.0
C08	8/06	55-43	163-20	Y34150 Z47410	44		0.0	0.0	0.0	103.0	103.0	100.0
C08	8/05	55-42	163-17	Y34145 Z47387	43		0.0	0.0	0.0	81.0	81.0	100.0
C08	8/05	55-42	163-18	Y34151 Z47396	43		0.0	87.0	0.0	0.0	87.0	0.0
C08	8/04	55-45	163-17	Y34136 Z47391	46		99.0	0.0	0.0	0.0	99.0	0.0
C08	8/02	55-43	163-13	Y34130 Z47361	44		0.0	0.0	97.0	0.0	97.0	0.0
C08	8/06	55-45	163-16	Y34130 Z47380	48		78.0	0.0	0.0	0.0	78.0	0.0
C08	8/06	55-45	163-17	Y34136 Z47390	48		77.0	0.0	0.0	154.0	231.0	66.7
C08	8/06	55-44	163-17	Y34141 Z47392	46		0.0	0.0	0.0	95.0	95.0	100.0
C08	8/05	55-41	163-14	Y34142 Z47370	44		0.0	0.0	0.0	91.0	91.0	100.0
C08	8/05	55-42	163-17	Y34143 Z47386	46		96.0	0.0	0.0	0.0	96.0	0.0
C08	8/05	55-42	163-17	Y34146 Z47390	46		0.0	0.0	0.0	101.0	101.0	100.0
C08	8/02	55-43	163-13	Y34131 Z47362	46		83.0	83.0	0.0	83.0	248.0	33.5
D09	6/12	55-59	162-49	Y34003 Z47208	44	2.6	0.0	0.0	0.0	432.0	432.0	100.0
E09	6/12	56-18	162-50	Y33924 Z47212	45		0.0	0.0	0.0	155.0	155.0	100.0
E10	6/11	56-19	162-11	Y33818 Z46955	41	2.2	79.0	0.0	0.0	0.0	79.0	0.0
F20	7/03	56-40	169-29	Y35057 Z49827	43		122.0	0.0	0.0	0.0	122.0	0.0
F21	7/03	56-49	169-51	Y35099 Z49978	39	3.5	286.0	95.0	95.0	95.0	572.0	16.6
G09	6/11	56-59	162-47	Y33712 Z47186	34	1.1	0.0	0.0	0.0	69.0	69.0	100.0
G14	6/07	57-00	159-41	Y33254 Z45935	30	3.5	79.0	238.0	0.0	0.0	317.0	0.0
G18	7/01	57-00	168-20	Y34750 Z49414	43	1.6	81.0	0.0	0.0	0.0	81.0	0.0
G19	7/01	56-59	168-57	Y34890 Z49660	45	1.8	0.0	146.0	0.0	0.0	146.0	0.0
G20	7/05	57-02	169-35	Y35016 Z49912	33	1.8	79.0	397.0	159.0	0.0	635.0	0.0
G21	7/05	57-10	169-53	Y35043 Z50032	27	4.1	1157.0	10413.0	496.0	0.0	12066.0	0.0
G21	7/03	57-00	170-10	X18690 Y35133	37	3.9	236.0	0.0	0.0	0.0	236.0	0.0
G22	7/04	57-06	170-28	X18654 Y35114	32	4.1	381.0	381.0	190.0	190.0	1143.0	16.6
H07	6/16	57-17	163-56	Y33799 Z47637	36	1.0	0.0	0.0	0.0	133.0	133.0	100.0
H11	6/09	57-22	161-31	Y33389 Z46668	32	2.3	60.0	0.0	0.0	0.0	60.0	0.0
H12	6/08	57-20	160-55	Y33316 Z46430	33	2.7	81.0	0.0	0.0	0.0	81.0	0.0
H19	7/01	57-19	169-00	Y34777 Z49662	40	1.8	0.0	79.0	0.0	79.0	157.0	50.3
H20	7/05	57-21	169-34	Y34884 Z49877	35	1.8	0.0	88.0	0.0	0.0	88.0	0.0
H21	7/04	57-16	170-16	X18711 Y35043	30	4.4	0.0	638.0	0.0	0.0	638.0	0.0
I06	6/16	57-40	164-36	Y33769 Z47889	28	1.7	0.0	0.0	0.0	79.0	79.0	100.0
J03	6/21	57-55	166-28	Y33986 Z48594	32	1.8	0.0	0.0	71.0	0.0	71.0	0.0
K02	6/27	58-19	167-11	Y33895 Z48791	27	2.0	77.0	0.0	0.0	0.0	77.0	0.0
L01	6/28	58-43	167-51	Y33753 Z48923	25	2.9	76.0	0.0	76.0	0.0	152.0	0.0
L18	6/30	58-39	168-30	Y33877 Z49136	29	2.4	82.0	0.0	246.0	82.0	410.0	20.0
M01	6/28	59-00	167-52	X18591 Y33557	23	3.0	0.0	0.0	71.0	0.0	71.0	0.0
M02	6/28	58-59	167-14	Y33487 Z48650	20	3.2	0.0	0.0	0.0	78.0	78.0	100.0
M18	6/29	59-00	168-32	Y33638 Z49038	24	2.3	83.0	0.0	83.0	0.0	166.0	0.0
M19	6/30	58-55	169-11	Y33764 Z49241	33	2.2	0.0	0.0	156.0	78.0	234.0	33.3
N19	6/29	59-21	169-14	Y33456 Z49108	28	2.3	0.0	0.0	78.0	0.0	78.0	0.0
O20	7/07	59-38	169-55	Y33284 Z49157	30	1.5	0.0	0.0	79.0	0.0	79.0	0.0
O23	7/09	59-36	171-53	X17881 Y33362	44	-0.7	74.0	0.0	0.0	0.0	74.0	0.0

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