Norton Sound Summer Commercial Red King Crab Fishery Observer Project Summary Report, 1988

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INTRODUCTION

The Norton Sound Section of the Eastern Bering Sea consists of all waters in statistical area Q that are north of the latitude of Cape Romanzof, east of 168 west longitude, and south of the latitude of Cape Prince of Wales (Figures 1 and 2). A large vessel summer commercial fishery has existed in this section since 1977.

The 1988 summer commercial fishery for red king crab (*Paralithodes camtschatica*) in the Norton Sound Section of the Eastern Bering Sea, began at 12 noon on August 1 and ended at 9:00 a.m. on August 11. The Alaska Department of Fish and Game placed one observer onboard a catcher/processor vessel at the start of the season on August 1, and another observer was placed aboard a catcher vessel which delivered to a processor vessel on August 8. Only these two vessels participated in the 1988 summer commercial season. This year, 1988, is the eighth year observers have been placed aboard fishing vessels. The purpose of the placement of observers on fishing vessels is to 1) assist the managers in determining the magnitude and location of the commercial harvest and 2) to collect various biological data which will aid in determining the status of the stock.

Objectives and Tasks

The specific objectives and associated tasks of the observer program are to:

1. Report the catch statistics daily (number of pots pulled and number of crab harvested) for each statistical area fished by the fishing vessel on which the observer is placed.

2. Estimate the length frequency of the harvested legal male and incidentally caught sublegal and female king crab. Legal crab being those crab whose carapace width equals or exceeds 4 3/4 inches.

3. Determine mean weights of the harvested legal male crab.

4. Determine the age of the carapace of sampled crab.

5. Determine the percentage of new recruits in the commercial harvest.

6. Determine the degree of ovigerity for incidentally caught females.

7. Collect information on tagged crab and pay appropriate reward for the data obtained.

8. Conduct skipper interviews, including the collection of fish tickets.

9. Assist in obtaining daily radio reports of catch and effort from the fleet.

METHODS

The methods for catch reporting, sampling crab, conducting skipper interviews, and collecting information from tagged crab have been presented in the 1987 Observer and Catch Sampler Operational Plan and/or the Project Operation Plan for the Norton Sound summer commercial king crab fishery observer and catch sampling program (1986).

In addition certain methods particular to this 1988 summer commercial red king crab fishery should be mentioned. During the season the observer onboard one vessel kept track of catch information for the skipper whereas on the other vessel the skipper kept his own catch log records. The catch log record of the observer and skipper differed slightly overall. Catch per pot for the skippers count was done by a harried crew member who was often doing other chores in between counting and sorting crab. Crew counts were surprisingly accurate most of the time with only a crab or two undercounted periodically. Pot lifts were kept track of both by the skipper and observer. Where substantial discrepancies arose between the two, it was found to be a result of a hurried miscalculation by the skipper who was extremely busy and which he corrected. Where discrepancies were minor no attempt was made to correct the skippers log. These difference between the 2 logs account for the slight differences in total legal male counts and number of pots lifted. The observer data is believed to be the more accurate of the two.

A departure from the operational plan occurred in the procedure for calculating the average soak times per pot within a string. These values were used later in calculating overall soak times by area and vessel and in calculating the catch per pot over a standardized 24hr period. Observers were incorrectly told to use the time of the first pot in and the time of the last pot out of a string to determine soak time per string. This was used as the average soak time per pot. The operational plan called for using the soak time of the first pot in each string (time in to time out) and the soak time of the last pot out in each string (time in to time out) to obtain an average soak time per pot. Use of the method indicated in the operational plan gives a more accurate calculation of soak time per pot. The method actually used gives a biased estimate which becomes more biased as the length of the string increases. On long strings the discrepancy appeared to increase average soak time as much as 3 hours, though in most cases examined only by about 1 hour. Overestimation of

soak times results in the calculation of an underestimated catch per pot over a standardized 24 hr period (CPP/24hr). Since soak times were long the differences between the results of the two methods were slight.

Field form 1 on which information on females was recorded had no column for 0% adult fecundity and all females without eggs were lumped with juveniles by observers. Past research has shown 99% of the Norton Sound female king crab of 75 mm length or larger were mature adults. Eight crab were observed which had length of 75 mm or more but apparently did not produce any external embryos.

Methods for determining new and old shell crab in the samples were unclear. Shell age determinations are subjective and experienced biologists frequently will disagree on new and old shell classification. Neither observer this year had ever attempted to age crab. Their estimations were based on handouts of subjective general indicators which were inadequate. Hands on training is required to accurately age shells. Underestimation would inflate the percentage of recruits and overestimation would deflate them.

RESULTS

Harvest Summary

Only two fishing vessels participated in the 1988 summer commercial red king crab fishery. Red king crab harvest logs were kept by Department observers for each statistical area fished. During the 10 day commercial fishery, August 1 - 11, one vessel fished in statistical areas (SA) 666401 and 656401, and the other in areas 666401, 656401 and 656330.

Where strings fell into more than one statistical area they were assigned to whichever area had more pots. Since fishing effort in 1988 occurred near the intersection of four statistical areas many strings occurred in more than one area. Such lumping caused an underestimation of the number of crab caught by vessel #1 in area SA 666401 and an overestimation of those in SA 656401. Six long strings occurred in both areas in a 60/40 ratio and one in a 52/48 ratio. Since 38 strings were observed, most of them long, such influence would appear to be small overall. However if just the above mentioned strings were separated by statistical area, SA 66401 would have reported nearly double the number of pot lifts (from 164 to 311) and double the number of crab, from 9% to about 17% of the overall harvest, with the number of crab in SA 656401 probably decreasing from 71% to about 63%. Most of the strings from vessel #2 fell into more than one statistical area, but none exceeded a 60/40 ratio and string sizes where much smaller. The cumulative effects of so many mixed strings falling largely SA 656330 may have resulted in noticeably reduced

reported catch and pot lifts in SA 666330 and SA 656401.

Since the 1988 summer commercial fishery occurred in such a small area centered at the junction of 4 statistical areas, separation of information by statistical area is probably of little value. The data is better evaluated by examining it in terms of the north-south effort of the two vessels participating in the fishery which appeared to sample two different segments of the population. One was a 'near' shore fishery with smaller legal males and a much greater number of sublegals and females, and the other was a 'far' shore fishery with larger heavier males, few prerecruit males, and almost no female crab.

Due to the late placement of the second observer most of the data was from vessel #1. Vessel #1 operated approximately twice as many pots and as a result had longer soak times. Observed average soak time of vessel #1 was 43.2 hr (Table 1) compared with 30.6 hr for vessel #2 (Table 2). The observed overall mean soak time per pot was 40.7 hr but is weighted toward vessel #1, which was observed over a much longer period. Overall mean soak time per pot was estimated to be 38.3 hr, using the observed soak time for vessel #2 in combination with its reported pot lifts prior to placing an observer onboard.

Vessel #1 lifted 60% of the total pots and harvested 63% of the legal crab. Vessel #1 had a legal catch per pot (CPP) of 36.1 and vessel #2 of 32.5 (31.6 during the observed period). Legal catch per pot over a 24 hr standardized soak period (CPP/24hr) however was 20.0 for vessel #1 and 25.5 for vessel #2 (24.8 during the observed period). Overall mean legal male CPP for the season was 34.7 (Table 3) and the overall observed CPP was 35.4 (Table 4). Overall mean legal CPP/24hr was estimated to be 21.8; the overall observed mean legal CPP/24hr was 20.8.

Based on daily harvest reports and data collected by Department observers, fishing effort and crab harvest was highest in SA 656401 (Table 3). Approximately 71% of the total harvest came from this area. The catch per pot standardized for 24hr (CPP/24hr) however was highest in SA 656330 (30.8), followed by SA 666401 (25.1), SA 656401 (19.3), and SA 666330 (15.5). Initially both vessels concentrated in SA 656401. An informal agreement midway into the season resulted in a division of the fishery, with vessel #1 fishing slightly to the north and a bit closer to the coast (approx. 64° 11-16'N.lat.) and vessel #2 slightly farther out to the south (approx. 63° 48' to 64° 06'N. lat.). Vessel #2 gradually migrated southward and slightly eastward as the season progressed until by the last day most strings lay entirely in the far northwest corner of SA 656330.

Weight of the legal male catch was substantially lower from vessel #1 (Table 5) and numbers of sublegals and females caught incidentally were substantially greater (Tables 1 and 2).

Highest CPP for subadults and females occurred in the northernmost fishing range of vessel #1. Virtually all sublegals and females caught were from SA 666401 and SA 656401 (Table 4). Legal males comprised about 82% of the observed catch, sublegal males approximately 17% and females only 1% (Table 4). Legal males made up about 83% of the total observed male king crab catch.

Legal Male King Crab

In addition to carapace length, carapace shell age and crab weight samples were collected by observers from the catch of each vessel.

Carapace length measurement was collected from 1,522 legal male red king crab during the 1988 fishery (Table 6, Figure 3). Carapace age was also determined for each crab sampled. Carapace shell age was subjectively classified as new (11 months old) or old (at least 23 months old). King crab which possessed a new shell carapace accounted for an estimated 74% of the total legal male crab sampled (Table 6). However, due to observer tendency to misidentify crab as old shell in the samples, this value is considered an underestimate.

One observer who recorded 35% old shell overall believed she had grossly overestimated on 400 of the 1000 crab she sampled. Of these 400 she classified 66% as old shell crab. This observer believes she underestimated on most of the other 600 crab she classified as 14% old shell crab. The second observer recorded 9% old shell crab and believed he had consistently underestimated old shell crab by about half based on discussion with an experienced biologist subsequent to the season.

Carapace length measurement summaries of samples taken from the harvest of individual fishing vessels are presented in Appendices A1 - A7. Overall mean length of sampled legal male king crab was 119.0 mm (Table 6).

Recruit red king crab are defined as crab which are less than 115 mm in carapace length and possess a new shell condition carapace. Recruit crab accounted for 25.5% of the total legal male king crab sample (Table 6). This sample is based on what the crews on the fishing vessels called legal male crab. If crab found by observers to actually be sublegal prerecruits are deleted from this sample, recruits accounted for 24.7% of the total legal male king crab sample (Table 7). Postrecruit king crab dominated the sample. In the various samples taken throughout the duration of the fishery, recruit king crab ranged from 5% to 45% (Table 7).

As stated earlier the determination of shell age is subjective

and the fact that two new observers were making those determinations places the estimate of percent recruitment in question. The number of small old shell crab appears to have been overestimated (Figure 4). The proportion of the male population that was judged to be of legal size but less than 115 mm in length was 31.7%. The proportion of recruit crab in the commercial fishery was probably closer to 31.7% than the 24.7% estimated using the shell age data.

Mean weight of legal crab was determined from 13 samples which totaled 2,100 individuals. Mean weight of samples ranged from 2.76 to 3.40 pounds per crab. Overall mean weight for the entire legal male sample was 3.15 pounds (Table 5). Vessel #1, which fished closer in to shore than vessel #2, caught smaller crab on average. Samples from vessel #1 ranged from 2.76 to 3.13 pounds and averaged 2.92. Samples from vessel #2 ranged from 3.27 to 3.40 pounds and averaged 3.33.

Overall observed mean catch per pot (CPP)of legal male king crab was 35.4 crab/pot. Overall observed mean catch per pot, standardized for a 24 hour soak period (CPP/24hr), was 20.8 crab/pot (Table 4). Mean string catch/pot/24hr (CPP/24hr) ranged from 5.8 to 54.0. Vessel #1 had a higher overall CPP than vessel #2 due to longer soak times per pot. Overall CPP/24hr was somewhat higher for vessel #2 which fished further offshore. Due to an earlier breakup it is believed that red king crab migrated further offshore than usual this year and larger males tend to migrate further, possibly accounting for the larger size and slightly greater CPP/24hr of crab taken by vessel #2.

Sublegal Male King Crab

Carapace length measurement and shell age were collected from 729 of the 12,384 observed sublegal male king crab (Tables 4 and 8, Figure 5). New shell crab accounted for 82% of the sample. Overall mean length of the sublegal crab sample was 96.7 mm. Carapace length measurement summaries of samples collected from individual fishing vessels are presented in Appendices B1 to B8.

Overall mean catch of sublegal male king crab per pot, standardized to a 24 hour soak period was 4.4 crab/pot (Table 4). Individual string mean CPP/24hr of sublegal male king crab ranged from 0.0 to 21.7 CPP/24hr. Vessel #1 had an overall average CPP/24hr of 4.9 sublegal crab while that of vessel #2 was only 0.9 sublegal crab.

Approximately 80% of the observed sublegal king crab were captured in SA 656401 (Table 4) and 18% in SA 666401. Very few sublegal were found in SA 666330 and SA 656330; 0.2% and 2.3% respectively. The CPP/24hr of sublegal crab was 4.4 in SA 656401, 7.7 in SA 666401 and 0.4 and 1.1 in SA 666330 and SA

656330, respectively (Table 4). Relatively high sublegal king crab catches, equal to or greater than 10 CPP/24hr occurred only in the northern most area fished by vessel #1 at 64° 11'-14'N. latitude (165° 52'-166° 01'N. longitude.)

Female King Crab

During the commercial fishery, 366 of the observed 929 female king crab were sampled for maturity and carapace length. Approximately 20% of the total female sample was considered immature (Table 9, Figure 6). Mean carapace length of immature female king crab was 67.6 mm. Most of the mature female king crab, 89%, were considered to have at least a high degree of ovigerity (> 60%). Mean carapace length of the adult female sample was 82.5 mm (Table 9).

Overall mean catch per pot of female king crab, standardized to a 24 hour soak period (CPP/24hr), was 0.3 crab/pot (Table 4) with a range of 0.0 to 17.2 crab/pot. Vessel #1 had an overall mean CPP/24hr of 0.4 with a range of 0.0 to 17.2 and vessel #2 an overall mean CPP/24hr of 0.0 with a range of 0.0 to 0.2. Relatively high catches of female king crab (≥ 0.2 CPP/24hr), like sublegal male king crab, occurred in SA 656401 and SA 666401. Values were 0.3 and 0.6 CPP/24hr respectively. Relatively high catches of female king crab (≥ 0.2 CPP/24hr) occurred sporadically from 64° 06" N. lat. to the northern limit of vessel #1's fishing area at 64° 16' N. lat. (165° 39' to 166° 09' N longitude).

DISCUSSION

During the 1988 red king crab fishery in the Norton Sound Section only 2 vessels participated in the fishery. Both vessels initially concentrated their effort around the intersection of areas 656401, 666401, 656330 and 666330 with much of the effort in the southwestern corner of SA 656401. Vessel #1 utilized the S.W. quarter of the western half of SA 656401 extending into the easternmost third of the southeast quarter of SA 666401. Vessel #2 operated on the intersection of all four areas with effort concentrated almost entirely in areas 656401, 656330 and 666330. Midway into the season vessel # 1 concentrated in the northern third of the area it had utilized and vessel #2 migrated in a more southerly direction gradually extending further into SA 656330. Legal male king crab were found throughout the area fished and vessels tended to put parallel strings in along their most productive areas. Catches of legal king crab increased on the last day of fishing as vessels homed in on the most productive areas. Catches by vessel #2 which operated in a more southerly area farther from shore, tended to have larger legal males and encountered a much lower incidence of sublegals and females. The highest incidence of sublegals and females came

from the northernmost fishing area of vessel #1.

As with last years harvest, post recruits dominated the harvest and recruitment appears to be poor. Due to the apparent smaller than expected population size of legal males the fishery was cut short last year and harvest quotas were reduced to 200,000 pounds for the 1988 season. Similarly poor recruitment this year may indicate a population in a continued decline. More information is needed however since the area sampled by the fishery was comparatively limited in scope and did not sample the nearer shore waters where prerecruits and new recruits might be expected to occur in greater abundance. The estimated percent recruitment to the fishery may therefore be erroneously low. A National Marine Fisheries Service (NMFS) trawling survey is currently underway which will cover the entire Norton Sound Section and should provide this needed information.

As with the prerecruit king crab, the incidence of females was low except in the northernmost area of this year's fishery, suggesting the smaller crab may have largely occurred nearer to the coast and were under sampled by the commercial fishery.

RECOMMENDATIONS

1. Calculations of mean soak time should follow the 1986 Operational Plan. This will result in a more accurate determination of mean soak time and of CPP/24hr.

2. A zero column should be included on Field Form 1 for 0% Female ovigerity. This was inadvertently left off of this data form.

3. Hands on training of observers utilizing known age carapace shells prior to the summer commercial season would greatly increase the accuracy of new and old shell determinations. Perhaps carapaces from the winter harvest could be saved and used for this purpose.

Table 1. Number of observed pot lifts, average soak time, legal males, sublegal males and females captured by statistical area, and the corresponding mean number of crab caught per observed pot lift (CPP) and pot lift standardized to a 24 hour soak period (CPP/24hr), Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

			Vessel # 1 - observed by Department Staff								
			Legal Males			Sublegal males			Females		
Statistical Area	Pot Lifts	Average Soak time	number	CPP	CPP/24hr	number	CPP	CPP/24hr	number	CPP	CPP/24hr
666401	164	41.4	7106	43.3	25.1	2173	13.2	7.7	178	1.1	0.6
656401	1184	43.5	41567	35.1	19.4	9843	8.3	4.6	738	0.6	0.3
Observed Total	1348	43.2	48673	36.1	20.0	12016	8.9	4.9	916	0.7	0.4

Table 2. Number of observed and combined pot lifts, average soak time, legal males, sublegal males and females captured by statistical area, and the corresponding mean number of crab caught per observed pot lift (CPP) and pot lift standardized to a 24 hour soak period (CPP/24hr), Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Vessel # 2 - observed by Department Staff

Statistical Area	Pot Lifts	Average Soak time	Legal Males			Sublegal males			Females		
			number	CPP	CPP/24hr	number	CPP	CPP/24hr	number	CPP	CPP/24hr
666330	36	34.9	810	22.5	15.5	21	0.6	0.4	1	0.0	0.0
656401	74	31.1	1661	22.5	17.3	66	0.9	0.7	5	0.1	0.1
656330	215	29.1	8014	37.3	30.8	283	1.3	1.1	7	0.0	0.0
Observed Total	325	30.2	10485	32.3	25.6	370	1.1	0.9	13	0.0	0.0
Total +	400	30.6	12645	31.6	24.8						

Vessel # 2 Combined *

Statistical Area	Pot Lifts	Average Soak time	Legal Males		
			number	CPP	CPP/24hr
666330	85	30.6**	2927	34.4	27.0
656401	441	30.6**	13128	29.8	23.3
656330	350	30.6**	12376	35.4	27.7
Total	876	30.6	28431	32.5	25.5

\+ Total includes pots where # legal males were observed, but not sublegals and females.

* Combines reported total pot lifts and legal males harvested with the observed data covering the remainder of the season.

** Average soak time is assumed to be the same as the total average soak time found during the observed period.

Table 3. Red king crab harvest summary for observer fishing vessels, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

	666401		666330		656401		656330	
Date	pots	crab	pots	crab	pots	crab	pots	crab
8/01	-	-	-	-	-	-	-	-
8/02	-	-	-	-	81	2571	-	-
8/03	15	406	10	625	267	9457	-	-
8/04	-	-	10	546	222	7287	-	-
8/05	-	-	-	-	212	6689	38	1291
8/06	-	-	29	946	198	3740	30	1042
8/07	-	-	-	-	71	2745	22	534
8/08	52	3924	20	570	199	10935	63	2142
8/09	46	1129	16	240	169	2777	18	398
8/10	51	1647	-	-	108	3054	109	3963
8/11	-	-	-	-	98	5440	70	3008
Total	164	7106	85	2927	1625	54695	350	12376
Percent of harvest		9.2%		3.8%		70.9%		16.1%
Total Pots		2224						
Total Harvest		77104						
CPP		34.7						

Table 4. Number of observed pot lifts, average soak time, legal males, sublegal males and females captured by statistical area, and the corresponding mean number of crab caught per observed pot lift (CPP) and pot lift standardized to a 24 hour soak period (CPP/24hr), Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Statistical Area	Pot lifts	Average soak time	Legal Males				Sublegal males				Females			
			number	CPP	CPP/24hr	%	number	CPP	CPP/24hr	%	number	CPP	CPP/24hr	%
666401	164	41.4	7106	44.3	25.1	12.0	2171	13.2	7.7	17.5	178	1.1	0.6	19.2
666330	36	34.9	810	22.5	15.5	1.4	21	0.6	0.4	0.2	1	0.0	0.0	0.1
656401	1258	42.8	43228	34.4	19.3	73.1	9909	7.9	4.4	80.0	743	0.6	0.3	80.0
656330	215	29.1	8014	37.3	30.8	13.5	283	1.3	1.1	2.3	7	0.0	0.0	0.8
Total	1673	40.7	59158	35.4	20.8		12384	7.4	4.4		929	0.6	0.3	
Percent of observed catch				81.6%				17.1%				1.3%		
Total crab observed		72471												

Table 5. Summary table of red king crab weight samples by date and fishing vessel, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

	#1		#2		Total		
Date 1988	No. of crab	Weight (pounds)	No. of crab	Weight (pounds)	No. of crab	Weight (pounds)	Weight/crab (pounds)
8/01	-	-	-	-	-	-	-
8/02	100	313	-	-	100	313	3.13
8/03	-	-	-	-	-	-	-
8/04	100	293	-	-	100	293	2.93
8/05	100	286	-	-	100	286	2.86
8/06	-	-	-	-	-	-	-
8/07	100	287	-	-	100	287	2.87
8/08	200	563	300	1000	500	1563	3.13
8/09	100	309	-	-	100	309	3.09
8/10	100	285	-	-	100	285	2.85
8/11	-	-	900	3000	900	3000	3.33
8/12	100	289	-	-	100	289	2.89
Total	900	2625	1200	4000	2100	6625	3.15
Mean Weight		2.92		3.33			

Table 6. Carapace length measurement summary of sampled legal male red king crab captured during the commercial king crab harvest, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New shell No.	New shell Ave Length Calc.	New shell %	Old shell No.	Old shell Ave Length Calc.	Old shell %	Total No.	Total Ave Length Calc.	Total %
79	1	0.07	0.1%	0	0.00	0.0%	1	0.05	0.1%
94	1	0.08	0.1%	0	0.00	0.0%	1	0.06	0.1%
95	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
96	1	0.08	0.1%	0	0.00	0.0%	1	0.06	0.1%
97	1	0.09	0.1%	0	0.00	0.0%	1	0.06	0.1%
98	2	0.17	0.2%	0	0.00	0.0%	2	0.13	0.1%
99	2	0.18	0.2%	0	0.00	0.0%	2	0.13	0.1%
100	1	0.09	0.1%	2	0.51	0.5%	3	0.20	0.2%
101	4	0.36	0.4%	3	0.77	0.8%	7	0.46	0.5%
102	11	0.99	1.0%	1	0.26	0.3%	12	0.80	0.8%
103	13	1.18	1.1%	3	0.79	0.8%	16	1.08	1.1%
104	12	1.10	1.1%	4	1.06	1.0%	16	1.09	1.1%
105	9	0.84	0.8%	11	2.95	2.8%	20	1.38	1.3%
106	20	1.87	1.8%	6	1.63	1.5%	26	1.81	1.7%
107	30	2.84	2.7%	10	2.74	2.6%	40	2.81	2.6%
108	27	2.58	2.4%	8	2.21	2.0%	35	2.48	2.3%
109	42	4.05	3.7%	6	1.67	1.5%	48	3.44	3.2%
110	34	3.31	3.0%	11	3.09	2.8%	45	3.25	3.0%
111	42	4.12	3.7%	14	3.97	3.6%	56	4.08	3.7%
112	41	4.06	3.6%	19	5.44	4.9%	60	4.42	3.9%
113	48	4.80	4.2%	9	2.60	2.3%	57	4.23	3.7%
114	46	4.64	4.1%	11	3.21	2.8%	57	4.27	3.7%
115	48	4.88	4.2%	14	4.12	3.6%	62	4.68	4.1%
116	49	5.03	4.3%	15	4.45	3.8%	64	4.88	4.2%
117	46	4.76	4.1%	20	5.98	5.1%	66	5.07	4.3%
118	47	4.90	4.2%	10	3.02	2.6%	57	4.42	3.7%
119	44	4.63	3.9%	15	4.57	3.8%	59	4.61	3.9%
120	48	5.09	4.2%	9	2.76	2.3%	57	4.49	3.7%
121	56	5.99	5.0%	28	8.66	7.2%	84	6.68	5.5%
122	38	4.10	3.4%	14	4.37	3.6%	52	4.17	3.4%
123	35	3.81	3.1%	12	3.77	3.1%	47	3.80	3.1%
124	25	2.74	2.2%	18	5.71	4.6%	43	3.50	2.8%
125	37	4.09	3.3%	17	5.43	4.3%	54	4.43	3.5%
126	36	4.01	3.2%	15	4.83	3.8%	51	4.22	3.4%
127	35	3.93	3.1%	7	2.27	1.8%	42	3.50	2.8%
128	21	2.38	1.9%	13	4.26	3.3%	34	2.86	2.2%
129	22	2.51	1.9%	6	1.98	1.5%	28	2.37	1.8%
130	31	3.56	2.7%	8	2.66	2.0%	39	3.33	2.6%
131	30	3.47	2.7%	4	1.34	1.0%	34	2.93	2.2%
132	18	2.10	1.6%	13	4.39	3.3%	31	2.69	2.0%
133	19	2.23	1.7%	6	2.04	1.5%	25	2.18	1.6%
134	13	1.54	1.1%	6	2.06	1.5%	19	1.67	1.2%
135	14	1.67	1.2%	7	2.42	1.8%	21	1.86	1.4%
136	10	1.20	0.9%	2	0.70	0.5%	12	1.07	0.8%
137	2	0.24	0.2%	1	0.35	0.3%	3	0.27	0.2%
138	3	0.37	0.3%	2	0.71	0.5%	5	0.45	0.3%
139	3	0.37	0.3%	1	0.36	0.3%	4	0.37	0.3%
140	0	0.00	0.0%	4	1.43	1.0%	4	0.37	0.3%
141	6	0.75	0.5%	0	0.00	0.0%	6	0.56	0.4%
142	4	0.50	0.4%	2	0.73	0.5%	6	0.56	0.4%
143	1	0.13	0.1%	0	0.00	0.0%	1	0.09	0.1%
144	0	0.00	0.0%	1	0.37	0.3%	1	0.09	0.1%
145	0	0.00	0.0%	1	0.37	0.3%	1	0.10	0.1%
146	1	0.13	0.1%	1	0.37	0.3%	2	0.19	0.1%
147	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
148	1	0.13	0.1%	0	0.00	0.0%	1	0.10	0.1%
149	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
150	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
151	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
152	0	0.00	0.0%	1	0.39	0.3%	1	0.10	0.1%
Total No.	1131		74.3%	391		25.7%	1522		100.0%
Mean		118.7			119.7			119.0	

Total legals 1522

Total Recruits 388
Percent 25.5%

Total Post Recruits 1134
Percent 74.5%

Table 7. Percent of newly recruited male king crab by sample and fishing vessel, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

	Fishing Vessel					
	#1		#2		Total	
Date 1988	Sample size	Percent Recruits	Sample size	Percent Recruits	Sample size	Percent Recruits
8/01	-	-	-	-	-	-
8/02	98	5.1	-	-	98	5.1
8/03	100	5.0	-	-	-	-
8/04	95	15.8	-	-	95	15.8
8/05	93	31.2	-	-	93	31.2
8/06	-	-	-	-	-	-
8/07	96	12.5	-	-	96	12.5
8/08	193	40.9	200	25.5	393	33.1
8/09	100	28.5	120	27.5	220	27.7
8/10	100	45.0	101	15.8	201	30.3
8/11	-	-	100	11.0	100	11.0
8/12	100	40.0	-	-	100	40.0
Total	975	26.5	521	21.3	1496	24.7

Table 8. Carapace length measurement summary of sampled sublegal male red king crab captured during the commercial king crab harvest, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell No.	New Shell Ave Length Calc	New Shell %	Old Shell No.	Old Shell Ave Length Calc	Old Shell %	Total No.	Total Ave Length Calc	Total %
56	1	0.09	0.2%	0	0.00	0.0%	1	0.08	0.1%
57	1	0.10	0.2%	0	0.00	0.0%	1	0.08	0.1%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	1	0.10	0.2%	0	0.00	0.0%	1	0.08	0.1%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	2	0.21	0.3%	0	0.00	0.0%	2	0.17	0.3%
63	1	0.11	0.2%	0	0.00	0.0%	1	0.09	0.1%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	1	0.11	0.2%	1	0.49	0.7%	2	0.18	0.3%
66	1	0.11	0.2%	1	0.49	0.7%	2	0.18	0.3%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	1	0.11	0.2%	0	0.00	0.0%	1	0.09	0.1%
69	1	0.12	0.2%	0	0.00	0.0%	1	0.09	0.1%
70	2	0.24	0.3%	0	0.00	0.0%	2	0.19	0.3%
71	1	0.12	0.2%	0	0.00	0.0%	1	0.10	0.1%
72	2	0.24	0.3%	0	0.00	0.0%	2	0.20	0.3%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	2	0.25	0.3%	1	0.56	0.7%	3	0.31	0.4%
76	1	0.13	0.2%	0	0.00	0.0%	1	0.10	0.1%
77	1	0.13	0.2%	1	0.57	0.7%	2	0.21	0.3%
78	4	0.52	0.7%	1	0.58	0.7%	5	0.53	0.7%
79	2	0.27	0.3%	1	0.59	0.7%	3	0.33	0.4%
80	3	0.40	0.5%	1	0.60	0.7%	4	0.44	0.5%
81	6	0.82	1.0%	0	0.00	0.0%	6	0.67	0.8%
82	6	0.83	1.0%	3	1.84	2.2%	9	1.01	1.2%
83	4	0.56	0.7%	0	0.00	0.0%	4	0.46	0.5%
84	5	0.71	0.8%	2	1.25	1.5%	7	0.81	1.0%
85	8	1.14	1.3%	2	1.27	1.5%	10	1.17	1.4%
86	5	0.72	0.8%	2	1.28	1.5%	7	0.83	1.0%
87	13	1.90	2.2%	2	1.30	1.5%	15	1.79	2.1%
88	10	1.48	1.7%	0	0.00	0.0%	10	1.21	1.4%
89	12	1.79	2.0%	2	1.33	1.5%	14	1.71	1.9%
90	14	2.12	2.4%	3	2.01	2.2%	17	2.10	2.3%
91	13	1.99	2.2%	6	4.07	4.5%	19	2.37	2.6%
92	10	1.55	1.7%	2	1.37	1.5%	12	1.51	1.6%
93	18	2.81	3.0%	2	1.39	1.5%	20	2.55	2.7%
94	25	3.95	4.2%	8	5.61	6.0%	33	4.26	4.5%
95	29	4.63	4.9%	4	2.84	3.0%	33	4.30	4.5%
96	27	4.36	4.5%	3	2.15	2.2%	30	3.95	4.1%
97	34	5.54	5.7%	8	5.79	6.0%	42	5.59	5.8%
98	38	6.26	6.4%	7	5.12	5.2%	45	6.05	6.2%
99	31	5.16	5.2%	8	5.91	6.0%	39	5.30	5.3%
100	44	7.39	7.4%	8	5.97	6.0%	52	7.13	7.1%
101	39	6.62	6.6%	6	4.52	4.5%	45	6.23	6.2%
102	39	6.69	6.6%	9	6.85	6.7%	48	6.72	6.6%
103	38	6.58	6.4%	8	6.15	6.0%	46	6.50	6.3%
104	36	6.29	6.1%	6	4.66	4.5%	42	5.99	5.8%
105	20	3.53	3.4%	7	5.49	5.2%	27	3.89	3.7%
106	15	2.67	2.5%	6	4.75	4.5%	21	3.05	2.9%
107	10	1.80	1.7%	7	5.59	5.2%	17	2.50	2.3%
108	7	1.27	1.2%	1	0.81	0.7%	8	1.19	1.1%
109	5	0.92	0.8%	3	2.44	2.2%	8	1.20	1.1%
110	4	0.74	0.7%	1	0.82	0.7%	5	0.75	0.7%
111	2	0.37	0.3%	1	0.83	0.7%	3	0.46	0.4%
sum	595		81.6%	134		18.4%	729		100.0%
Mean		96.5			97.3			96.7	

Total sublegals 729

Table 9. Carapace length measurement and percent ovigerity summary of sampled female red king crab captured in the Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

NORTON SOUND FEMALE KING CRAB CATCH SAMPLING

Stat.Area 656330 656401 & 666330 Vessel #1&2 8 1-11 88 Recorder JGG

JUVENILE		ADULT SIZE PER % OVIGERITY							ADULT SIZE PER % OVIGERITY						
mm	no.	mm	Full	Hi	Med	Low	0	Sum	mm	Full	Hi	Med	Low	0	Sum
50		60						0	91	8	1		1		10
51		61						0	92	6	1				7
52		62						0	93	5	3		2		10
53		63						0	94	1	2				3
54		64	1					1	95	3					3
55		65						0	96		1				1
56	1	66						0	97	3	1				4
57		67			1			1	98	1					1
58	2	68	2	2				4	99	2	1				3
59	1	69	2	1				3	100						0
60	1	70						0	101	2					2
61	2	71		5	2			7	102	3					3
62	4	72	6	1				7	103						0
63	5	73	5	3				8	104	1	1				2
64	1	74	4	2				6	105						0
65	7	75	6	2			2	10	106		1				1
66	3	76	5	1			1	7	107						0
67	2	77	5	3	1		1	10	108						0
68	5	78	6	4	2	1	4	17	109			1			1
69	11	79	10	1		3		14	110						0
70	10	80	9	8				17	111						0
71	9	81	7	2	1			10	112						0
72	3	82	11	6		1		18	113						0
73	3	83	9	4	1	1		15	114						0
74	5	84	10	6				16	115						0
75		85	11	3				14	116						0
76		86	5	1				6	117						0
77		87	8	6	1	1		16	118						0
78		88	10	3				13	119						0
79		89	7	3	1			11	120						0
80		90	4	3		1		8	121						0
									122				1		1
	75		143	70	10	8	8	239		35	12	1	4	0	52

TOTAL ADULTS/OVIGERITY - - 178 82 11 12 8 291
% ADULTS/OVIGERITY - - - -61.1 28.1 3.7 4.1 2.7

MEAN 67.6 WEIGHTED MEAN ADULT LENGTH - - 82.5
VAR. 18.54 VARIANCE OF THE MEAN LENGTH — 264

Full=90-100%, Hi=60-89%, Med=30-59%, Lo=1-29%

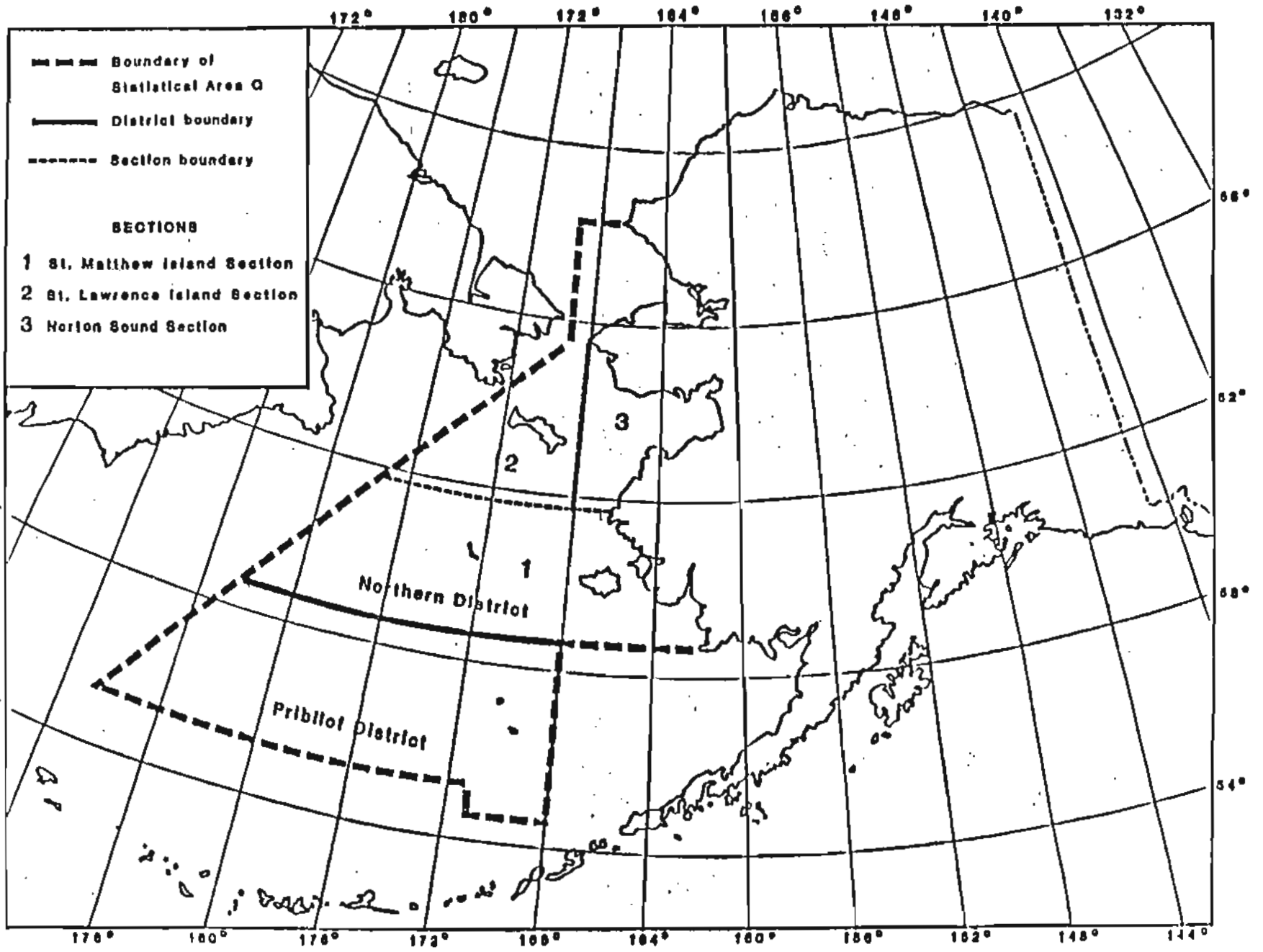

Figure 1. King crab fishing districts and sections of Statistical Area Q

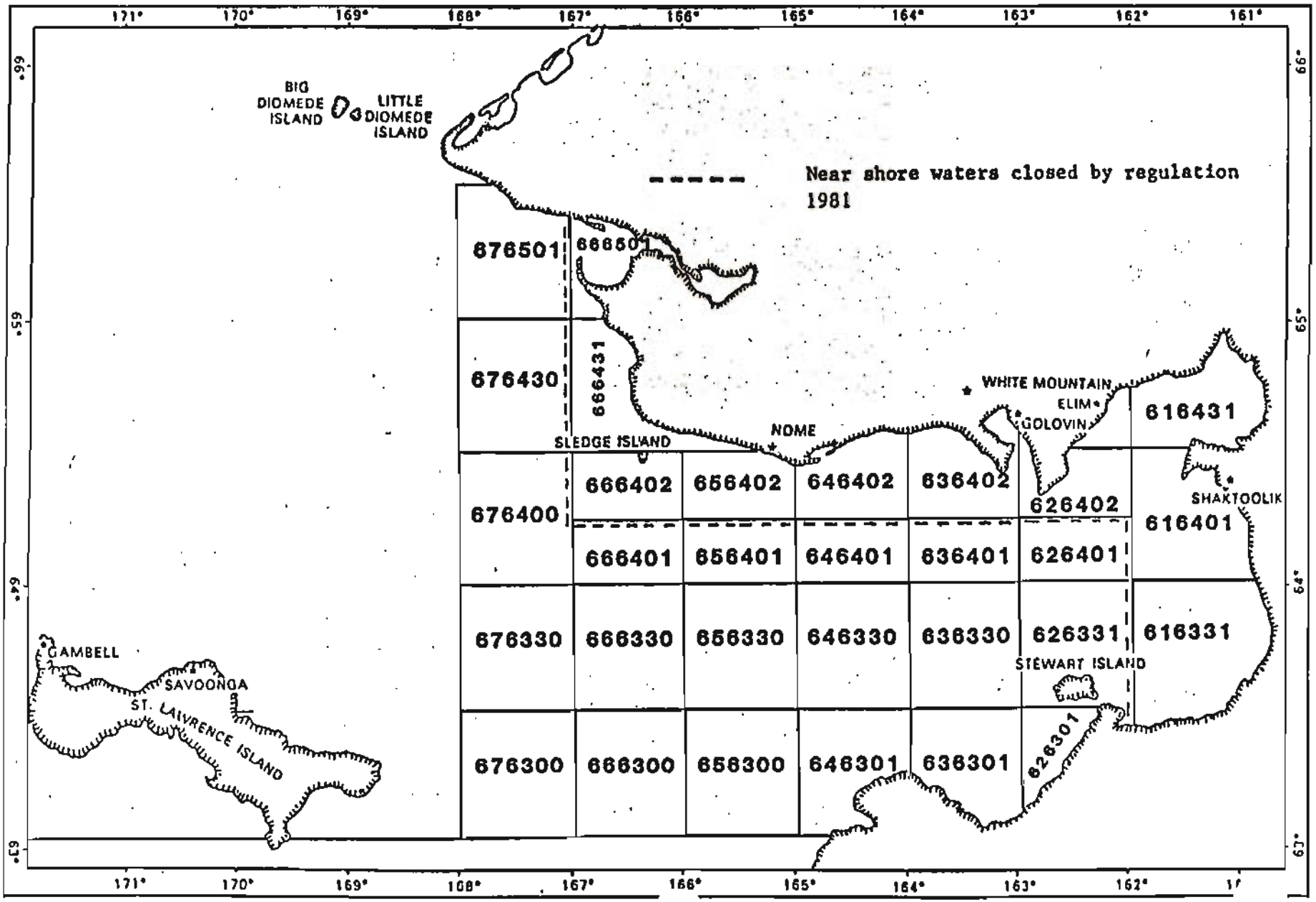

Fig 2. Statistical areas for the Norton Sound red crab fishery.

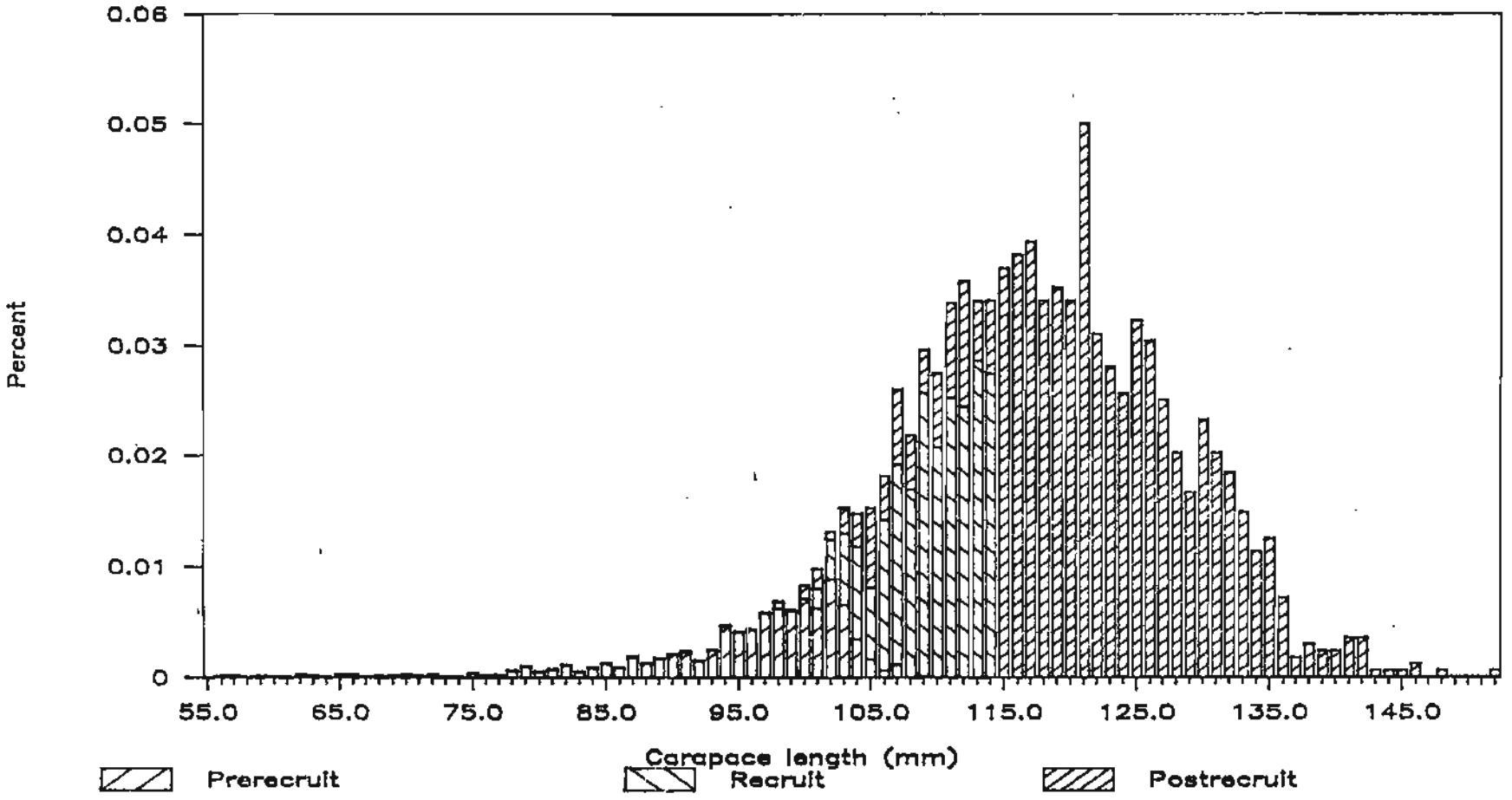

Figure 3. Length frequency distribution of prerecruit, recruit, and postrecruit male red king crab, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

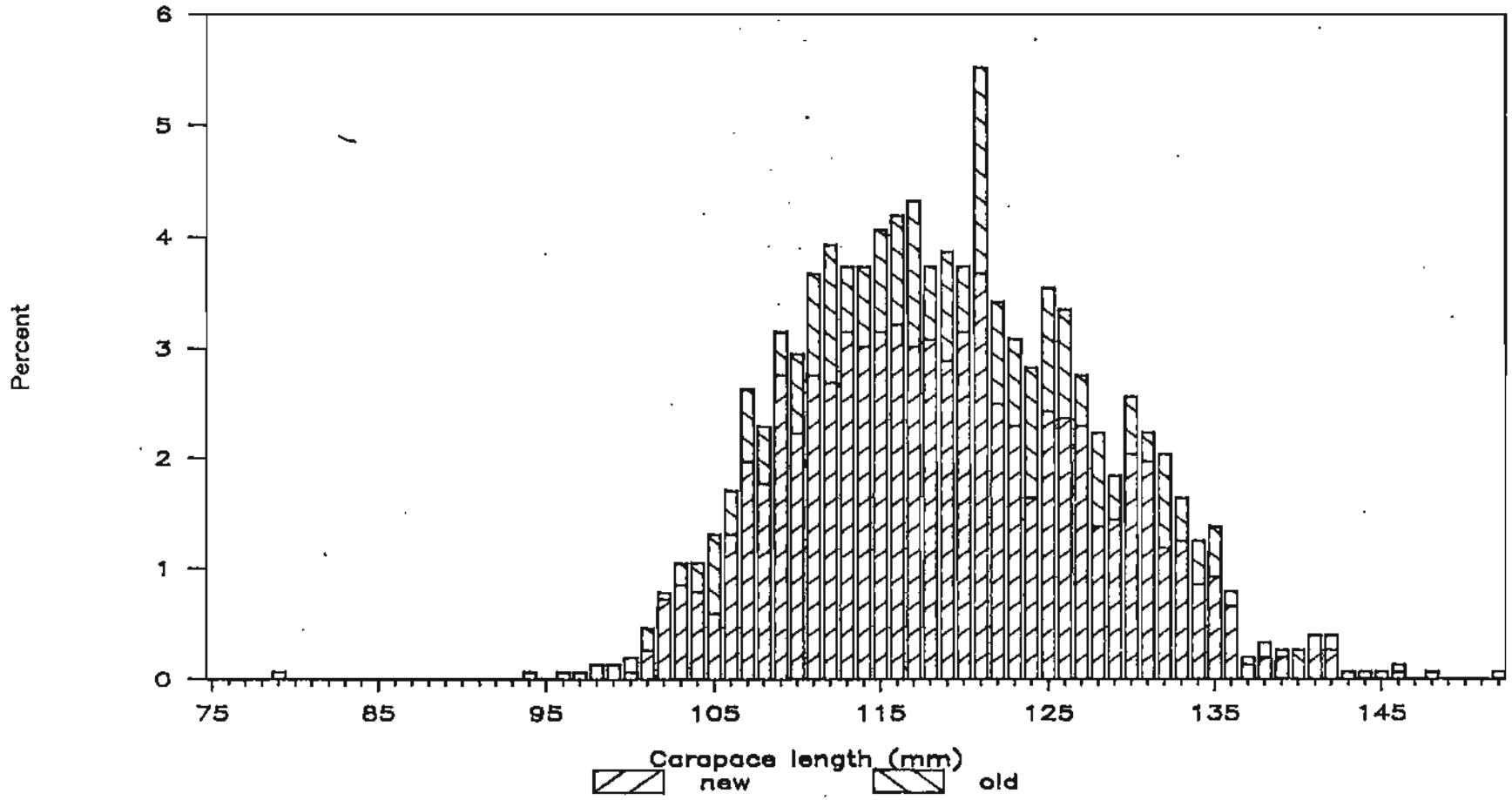

Figure 4. Length frequency distribution and frequency of new and old carapace age condition of legal male red king crab, Norton Sound Section, Eastern Bering Sea, August 1-11, 1988.

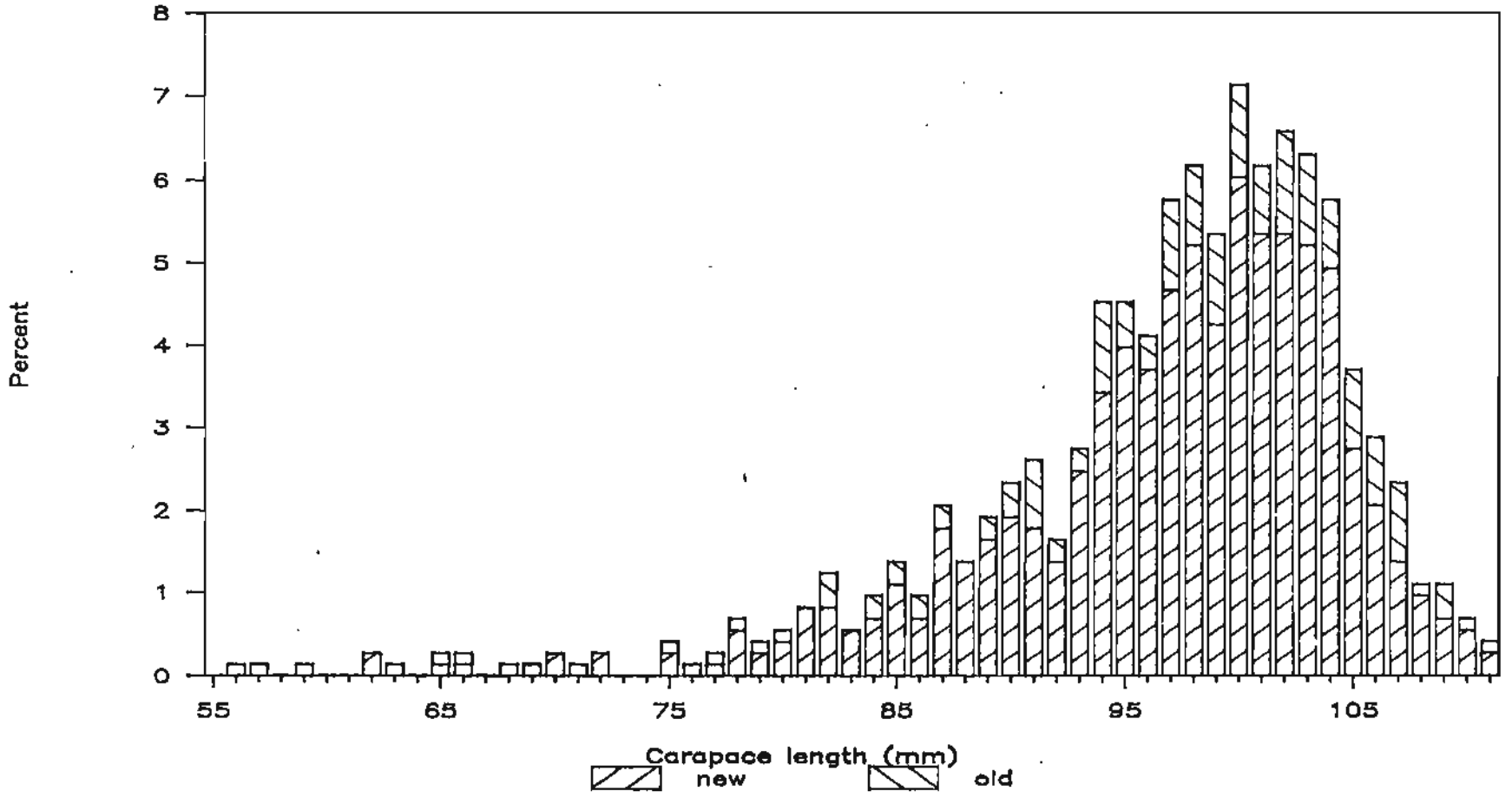

Figure 5. Length frequency distribution and frequency of new and old carapace age condition of prerecruit male king crab, Norton Sound Section, Eastern Bering Sea, August 1-11, 1988.

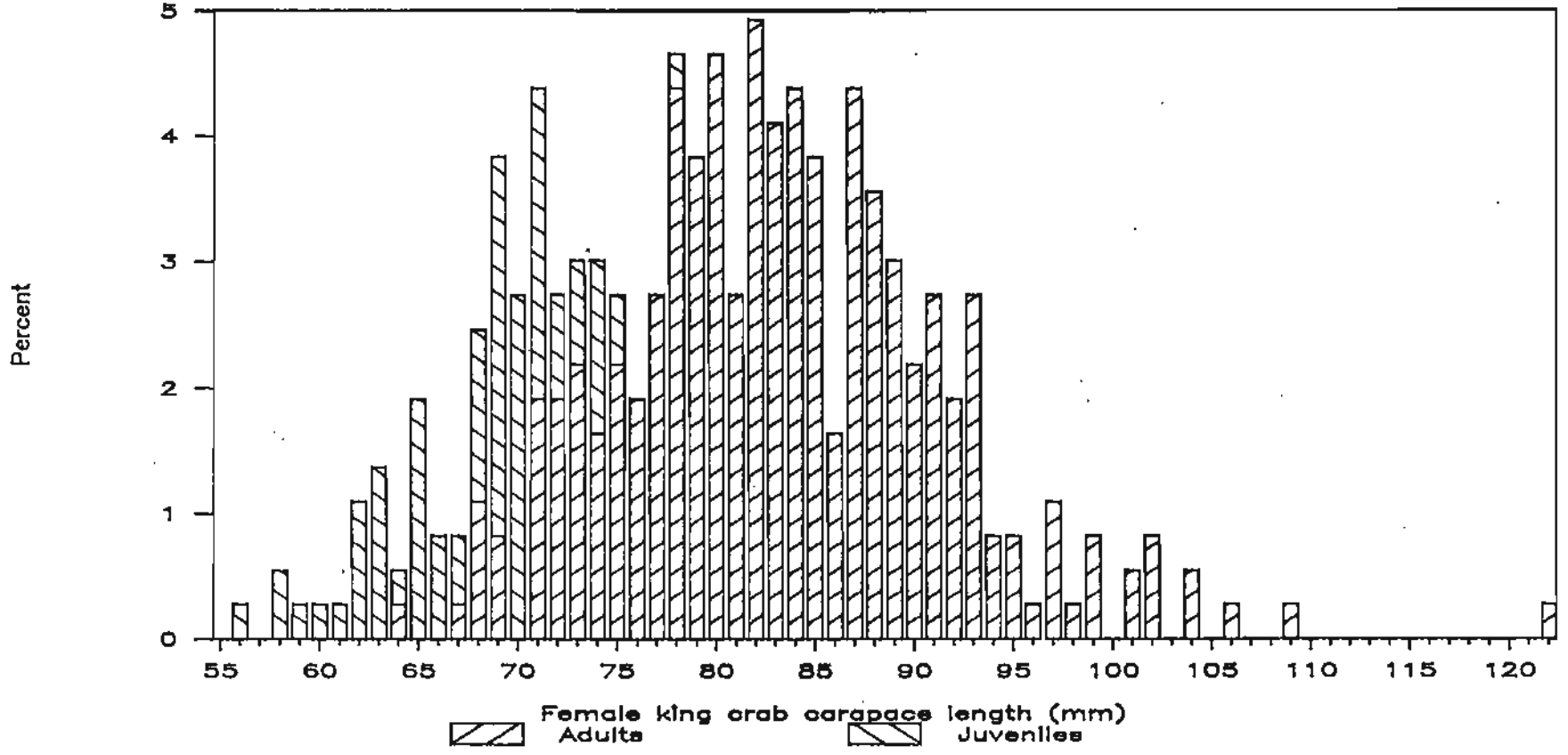

Figure 6. Length frequency distribution of female red king crab, juveniles and adults, Norton Sound Section, Eastern Bering Sea, August 1-11, 1988.

APPENDIX A

Appendix Table A1. Carapace length measurement summary of sampled legal male red king crab captured by Vessel #1, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New shell No.	New shell Ave Length Calc.	New shell %	Old shell No.	Old shell Ave Length Calc.	Old shell %	Total No.	Total Ave Length Calc.	Total %
79	1	0.12	0.2%	0	0.00	0.0%	1	0.08	0.1%
94	1	0.14	0.2%	0	0.00	0.0%	1	0.09	0.1%
95	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
96	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
97	1	0.15	0.2%	0	0.00	0.0%	1	0.10	0.1%
98	2	0.30	0.3%	0	0.00	0.0%	2	0.20	0.2%
99	2	0.30	0.3%	0	0.00	0.0%	2	0.20	0.2%
100	1	0.15	0.2%	2	0.58	0.6%	3	0.30	0.3%
101	3	0.46	0.5%	3	0.88	0.9%	6	0.61	0.6%
102	10	1.56	1.5%	1	0.30	0.3%	11	1.12	1.1%
103	11	1.73	1.7%	3	0.95	0.9%	14	1.44	1.4%
104	11	1.75	1.7%	4	1.21	1.2%	15	1.56	1.5%
105	6	0.96	0.9%	11	3.35	3.2%	17	1.79	1.7%
106	16	2.59	2.4%	6	1.84	1.7%	22	2.33	2.2%
107	19	3.10	2.9%	10	3.10	2.9%	29	3.10	2.9%
108	20	3.30	3.1%	7	2.19	2.0%	27	2.92	2.7%
109	31	5.16	4.7%	6	1.90	1.7%	37	4.03	3.7%
110	21	3.53	3.2%	11	3.51	3.2%	32	3.52	3.2%
111	29	4.91	4.4%	14	4.50	4.1%	43	4.77	4.3%
112	31	5.30	4.7%	19	6.17	5.5%	50	5.60	5.0%
113	30	5.18	4.6%	8	2.62	2.3%	38	4.29	3.8%
114	30	5.22	4.6%	10	3.30	2.9%	40	4.56	4.0%
115	35	6.15	5.3%	14	4.67	4.1%	49	5.64	4.9%
116	23	4.07	3.5%	11	3.70	3.2%	34	3.94	3.4%
117	25	4.47	3.8%	15	5.09	4.3%	40	4.68	4.0%
118	22	3.96	3.4%	9	3.08	2.6%	31	3.66	3.1%
119	23	4.18	3.5%	14	4.83	4.1%	37	4.40	3.7%
120	23	4.21	3.5%	9	3.13	2.6%	32	3.84	3.2%
121	35	6.47	5.3%	24	8.42	7.0%	59	7.14	5.9%
122	21	3.91	3.2%	13	4.60	3.8%	34	4.15	3.4%
123	15	2.82	2.3%	10	3.57	2.9%	25	3.08	2.5%
124	15	2.84	2.3%	17	6.11	4.9%	32	3.97	3.2%
125	15	2.86	2.3%	12	4.35	3.5%	27	3.38	2.7%
126	23	4.42	3.5%	15	5.48	4.3%	38	4.79	3.8%
127	16	3.10	2.4%	7	2.58	2.0%	23	2.92	2.3%
128	9	1.76	1.4%	10	3.71	2.9%	19	2.43	1.9%
129	11	2.17	1.7%	5	1.87	1.4%	16	2.06	1.6%
130	11	2.18	1.7%	4	1.51	1.2%	15	1.95	1.5%
131	13	2.60	2.0%	2	0.76	0.6%	15	1.97	1.5%
132	10	2.02	1.5%	11	4.21	3.2%	21	2.77	2.1%
133	9	1.83	1.4%	5	1.93	1.4%	14	1.86	1.4%
134	6	1.23	0.9%	5	1.94	1.4%	11	1.47	1.1%
135	7	1.44	1.1%	6	2.35	1.7%	13	1.76	1.3%
136	3	0.62	0.5%	2	0.79	0.6%	5	0.68	0.5%
137	1	0.21	0.2%	1	0.40	0.3%	2	0.27	0.2%
138	1	0.21	0.2%	2	0.80	0.6%	3	0.41	0.3%
139	1	0.21	0.2%	0	0.00	0.0%	1	0.14	0.1%
140	0	0.00	0.0%	2	0.81	0.6%	2	0.28	0.2%
141	2	0.43	0.3%	0	0.00	0.0%	2	0.28	0.2%
142	1	0.22	0.2%	2	0.82	0.6%	3	0.43	0.3%
143	1	0.22	0.2%	0	0.00	0.0%	1	0.14	0.1%
144	0	0.00	0.0%	1	0.42	0.3%	1	0.14	0.1%
145	0	0.00	0.0%	1	0.42	0.3%	1	0.15	0.1%
146	1	0.22	0.2%	0	0.00	0.0%	1	0.15	0.1%
147	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
148	1	0.23	0.2%	0	0.00	0.0%	1	0.15	0.1%
149	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
150	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
151	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
152	0	0.00	0.0%	1	0.44	0.3%	1	0.15	0.1%
Total No.	655		65.5%	345		34.5%	1000		100.0%
Mean		117.2			119.0			117.8	

Total legals 1000

Total Recruits 276
Percent 27.6%

Total Post Recruits 724
Percent 72.4%

Appendix Table A2. Carapace length measurement summary of sampled legal male red king crab captured by Vessel #2, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New shell No.	New shell Ave Length Calc.	New shell %	Old shell No.	Old shell Ave Length Calc.	Old shell %	Total No.	Total Ave Length Calc.	Total %
79	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
94	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
95	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
96	1	0.20	0.2%	0	0.00	0.0%	1	0.18	0.2%
97	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
98	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
99	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
100	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
101	1	0.21	0.2%	0	0.00	0.0%	1	0.19	0.2%
102	1	0.21	0.2%	0	0.00	0.0%	1	0.20	0.2%
103	2	0.43	0.4%	0	0.00	0.0%	2	0.39	0.4%
104	1	0.22	0.2%	0	0.00	0.0%	1	0.20	0.2%
105	3	0.66	0.6%	0	0.00	0.0%	3	0.60	0.6%
106	4	0.89	0.8%	0	0.00	0.0%	4	0.81	0.8%
107	11	2.47	2.3%	0	0.00	0.0%	11	2.25	2.1%
108	7	1.59	1.5%	1	2.35	2.2%	8	1.66	1.5%
109	11	2.52	2.3%	0	0.00	0.0%	11	2.30	2.1%
110	13	3.00	2.7%	0	0.00	0.0%	13	2.74	2.5%
111	13	3.03	2.7%	0	0.00	0.0%	13	2.76	2.5%
112	10	2.35	2.1%	0	0.00	0.0%	10	2.15	1.9%
113	18	4.27	3.8%	1	2.46	2.2%	19	4.11	3.6%
114	16	3.83	3.4%	1	2.48	2.2%	17	3.71	3.3%
115	13	3.14	2.7%	0	0.00	0.0%	13	2.86	2.5%
116	26	6.34	5.5%	4	10.09	8.7%	30	6.67	5.7%
117	21	5.16	4.4%	5	12.72	10.9%	26	5.83	5.0%
118	25	6.20	5.3%	1	2.57	2.2%	26	5.88	5.0%
119	21	5.25	4.4%	1	2.59	2.2%	22	5.02	4.2%
120	25	6.30	5.3%	0	0.00	0.0%	25	5.75	4.8%
121	21	5.34	4.4%	4	10.52	8.7%	25	5.80	4.8%
122	17	4.36	3.6%	1	2.65	2.2%	18	4.21	3.4%
123	20	5.17	4.2%	2	5.35	4.3%	22	5.18	4.2%
124	10	2.61	2.1%	1	2.70	2.2%	11	2.61	2.1%
125	22	5.70	4.6%	5	13.59	10.9%	27	6.47	5.2%
126	13	3.44	2.7%	0	0.00	0.0%	13	3.14	2.5%
127	19	5.07	4.0%	0	0.00	0.0%	19	4.62	3.6%
128	12	3.23	2.5%	3	8.35	6.5%	15	3.68	2.9%
129	11	2.98	2.3%	1	2.80	2.2%	12	2.97	2.3%
130	20	5.46	4.2%	4	11.30	8.7%	24	5.98	4.6%
131	17	4.68	3.6%	2	5.70	4.3%	19	4.77	3.6%
132	8	2.22	1.7%	2	5.74	4.3%	10	2.53	1.9%
133	10	2.79	2.1%	1	2.89	2.2%	11	2.80	2.1%
134	7	1.97	1.5%	1	2.91	2.2%	8	2.05	1.5%
135	7	1.99	1.5%	1	2.93	2.2%	8	2.07	1.5%
136	7	2.00	1.5%	0	0.00	0.0%	7	1.82	1.3%
137	1	0.29	0.2%	0	0.00	0.0%	1	0.26	0.2%
138	2	0.58	0.4%	0	0.00	0.0%	2	0.53	0.4%
139	2	0.58	0.4%	1	3.02	2.2%	3	0.80	0.6%
140	0	0.00	0.0%	2	6.09	4.3%	2	0.54	0.4%
141	4	1.18	0.8%	0	0.00	0.0%	4	1.00	0.8%
142	3	0.89	0.6%	0	0.00	0.0%	3	0.82	0.6%
143	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
144	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
145	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
146	0	0.00	0.0%	1	3.17	2.2%	1	0.28	0.2%
147	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
148	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
149	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
150	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
151	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
152	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
Total No.	476		91.2%	46		8.8%	522		100.0%
Mean		120.9			124.9			121.2	

Total legals 522

Total Recruits 112
Percent 21.5%

Total Post Recruits 410
Percent 78.5%

Appendix Table A3. Carapace length measurement summary of sampled legal male red king crab captured by vessel #1, SA 666401, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New shell No.	New shell Ave Length Calc.	New shell %	Old shell No.	Old shell Ave Length Calc.	Old shell %	Total No.	Total Ave Length Calc.	Total %
79	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
94	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
95	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
96	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
97	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
98	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
99	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
100	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
101	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
102	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
103	1	3.96	3.8%	1	1.39	1.4%	2	2.06	2.0%
104	1	4.00	3.8%	0	0.00	0.0%	1	1.04	1.0%
105	0	0.00	0.0%	2	2.84	2.7%	2	2.10	2.0%
106	0	0.00	0.0%	2	2.86	2.7%	2	2.12	2.0%
107	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
108	0	0.00	0.0%	2	2.92	2.7%	2	2.16	2.0%
109	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
110	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
111	0	0.00	0.0%	1	1.50	1.4%	1	1.11	1.0%
112	0	0.00	0.0%	3	4.54	4.1%	3	3.36	3.0%
113	2	8.69	7.7%	0	0.00	0.0%	2	2.26	2.0%
114	1	4.38	3.8%	1	1.54	1.4%	2	2.28	2.0%
115	0	0.00	0.0%	4	6.22	5.4%	4	4.60	4.0%
116	0	0.00	0.0%	2	3.14	2.7%	2	2.32	2.0%
117	0	0.00	0.0%	6	9.49	8.1%	6	7.02	6.0%
118	0	0.00	0.0%	2	3.19	2.7%	2	2.36	2.0%
119	0	0.00	0.0%	1	1.61	1.4%	1	1.19	1.0%
120	0	0.00	0.0%	1	1.62	1.4%	1	1.20	1.0%
121	2	9.31	7.7%	8	13.00	10.8%	10	12.10	10.0%
122	0	0.00	0.0%	2	3.38	2.7%	2	2.44	2.0%
123	1	4.73	3.8%	1	1.66	1.4%	2	2.46	2.0%
124	2	9.54	7.7%	6	10.85	8.1%	8	9.92	8.0%
125	2	9.62	7.7%	4	6.76	5.4%	6	7.50	6.0%
126	2	9.69	7.7%	4	6.81	5.4%	6	7.56	6.0%
127	2	9.77	7.7%	0	0.00	0.0%	2	2.54	2.0%
128	4	19.69	15.4%	2	3.46	2.7%	6	7.68	6.0%
129	1	4.96	3.8%	0	0.00	0.0%	1	1.29	1.0%
130	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
131	0	0.00	0.0%	1	1.77	1.4%	1	1.31	1.0%
132	1	5.08	3.8%	5	8.92	6.8%	6	7.92	6.0%
133	0	0.00	0.0%	2	3.59	2.7%	2	2.66	2.0%
134	1	5.15	3.8%	3	5.43	4.1%	4	5.36	4.0%
135	0	0.00	0.0%	2	3.65	2.7%	2	2.70	2.0%
136	1	5.23	3.8%	1	1.84	1.4%	2	2.72	2.0%
137	0	0.00	0.0%	1	1.85	1.4%	1	1.37	1.0%
138	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
139	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
140	0	0.00	0.0%	2	3.78	2.7%	2	2.00	2.0%
141	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
142	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
143	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
144	0	0.00	0.0%	1	1.95	1.4%	1	1.44	1.0%
145	0	0.00	0.0%	1	1.96	1.4%	1	1.45	1.0%
146	1	5.62	3.8%	0	0.00	0.0%	1	1.46	1.0%
147	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
148	1	5.69	3.8%	0	0.00	0.0%	1	1.48	1.0%
149	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
150	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
151	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
152	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
Total No.	26		26.0%	74		74.0%	100		100.0%
Mean		125.1			122.7			123.3	

Total legals 100

Total Recruits 5
Percent 5.0%

Total Post Recruits 95
Percent 95.0%

Appendix Table A4. Carapace length measurement summary of sampled legal male red king crab captured by vessel #1, SA 656401, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New shell No.	New shell Ave Length Calc.	New shell %	Old shell No.	Old shell Ave Length Calc.	Old shell %	Total No.	Total Ave Length Calc.	Total %
79	1	0.13	0.2%	0	0.00	0.0%	1	0.09	0.1%
94	1	0.15	0.2%	0	0.00	0.0%	1	0.10	0.1%
95	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
96	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
97	1	0.15	0.2%	0	0.00	0.0%	1	0.11	0.1%
98	2	0.31	0.3%	0	0.00	0.0%	2	0.22	0.2%
99	2	0.31	0.3%	0	0.00	0.0%	2	0.22	0.2%
100	1	0.16	0.2%	2	0.74	0.7%	3	0.33	0.3%
101	3	0.48	0.5%	3	1.12	1.1%	6	0.67	0.7%
102	10	1.62	1.6%	1	0.38	0.4%	11	1.25	1.2%
103	10	1.64	1.6%	2	0.76	0.7%	12	1.37	1.3%
104	10	1.65	1.6%	4	1.54	1.5%	14	1.62	1.6%
105	6	1.00	1.0%	9	3.49	3.3%	15	1.75	1.7%
106	16	2.70	2.5%	4	1.56	1.5%	20	2.36	2.2%
107	19	3.23	3.0%	10	3.95	3.7%	29	3.45	3.2%
108	20	3.43	3.2%	5	1.99	1.8%	25	3.00	2.8%
109	31	5.37	4.9%	6	2.41	2.2%	37	4.48	4.1%
110	21	3.67	3.3%	11	4.46	4.1%	32	3.91	3.6%
111	29	5.12	4.6%	13	5.32	4.8%	42	5.18	4.7%
112	31	5.52	4.9%	16	6.61	5.9%	47	5.85	5.2%
113	28	5.03	4.5%	8	3.34	3.0%	36	4.52	4.0%
114	29	5.26	4.6%	9	3.79	3.3%	38	4.81	4.2%
115	35	6.48	5.6%	10	4.24	3.7%	45	5.75	5.0%
116	23	4.24	3.7%	9	3.85	3.3%	32	4.12	3.6%
117	25	4.65	4.0%	9	3.89	3.3%	34	4.42	3.8%
118	22	4.13	3.5%	7	3.05	2.6%	29	3.80	3.2%
119	23	4.35	3.7%	13	5.71	4.8%	36	4.76	4.0%
120	23	4.39	3.7%	8	3.54	3.0%	31	4.13	3.4%
121	33	6.35	5.2%	16	7.14	5.9%	49	6.59	5.4%
122	21	4.07	3.3%	11	4.95	4.1%	32	4.34	3.6%
123	14	2.74	2.2%	9	4.08	3.3%	23	3.14	2.6%
124	13	2.56	2.1%	11	5.03	4.1%	24	3.31	2.7%
125	13	2.58	2.1%	8	3.69	3.0%	21	2.92	2.3%
126	21	4.21	3.3%	11	5.11	4.1%	32	4.48	3.6%
127	14	2.83	2.2%	7	3.28	2.6%	21	2.96	2.3%
128	5	1.02	0.8%	8	3.78	3.0%	13	1.85	1.4%
129	10	2.05	1.6%	5	2.38	1.8%	15	2.15	1.7%
130	11	2.27	1.7%	4	1.92	1.5%	15	2.17	1.7%
131	13	2.71	2.1%	1	0.48	0.4%	14	2.04	1.6%
132	9	1.89	1.4%	6	2.92	2.2%	15	2.20	1.7%
133	9	1.90	1.4%	3	1.47	1.1%	12	1.77	1.3%
134	5	1.07	0.8%	2	0.99	0.7%	7	1.04	0.8%
135	7	1.50	1.1%	4	1.99	1.5%	11	1.65	1.2%
136	2	0.43	0.3%	1	0.50	0.4%	3	0.45	0.3%
137	1	0.22	0.2%	0	0.00	0.0%	1	0.15	0.1%
138	1	0.22	0.2%	2	1.02	0.7%	3	0.46	0.3%
139	1	0.22	0.2%	0	0.00	0.0%	1	0.15	0.1%
140	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
141	2	0.45	0.3%	0	0.00	0.0%	2	0.31	0.2%
142	1	0.23	0.2%	2	1.05	0.7%	3	0.47	0.3%
143	1	0.23	0.2%	0	0.00	0.0%	1	0.16	0.1%
144	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
145	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
146	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
147	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
148	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
149	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
150	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
151	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
152	0	0.00	0.0%	1	0.56	0.4%	1	0.17	0.1%
Total No.	629		69.9%	271		30.1%	900		100.0%
Mean		116.8			118.1			117.2	

Total legals 900

Total Recruits 271
Percent 30.1%

Total Post Recruits 629
Percent 69.9%

Appendix Table A5. Carapace length measurement summary of sampled legal male red king crab captured by vessel #2, SA 656401, August 1 - 11, 1988.

Carapace Length (mm)	New shell No.	New shell Ave Length Calc.	New shell %	Old shell No.	Old shell Ave Length Calc.	Old shell %	Total No.	Total Ave Length Calc.	Total %
79	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
94	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
95	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
96	1	0.55	0.6%	0	0.00	0.0%	1	0.48	0.5%
97	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
98	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
99	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
100	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
101	1	0.57	0.6%	0	0.00	0.0%	1	0.50	0.5%
102	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
103	1	0.59	0.6%	0	0.00	0.0%	1	0.51	0.5%
104	1	0.59	0.6%	0	0.00	0.0%	1	0.52	0.5%
105	3	1.79	1.7%	0	0.00	0.0%	3	1.57	1.5%
106	2	1.20	1.1%	0	0.00	0.0%	2	1.05	1.0%
107	7	4.26	4.0%	0	0.00	0.0%	7	3.73	3.5%
108	4	2.45	2.3%	1	4.32	4.0%	5	2.69	2.5%
109	4	2.48	2.3%	0	0.00	0.0%	4	2.17	2.0%
110	8	5.00	4.5%	0	0.00	0.0%	8	4.38	4.0%
111	4	2.52	2.3%	0	0.00	0.0%	4	2.21	2.0%
112	3	1.91	1.7%	0	0.00	0.0%	3	1.67	1.5%
113	7	4.49	4.0%	0	0.00	0.0%	7	3.94	3.5%
114	6	3.89	3.4%	0	0.00	0.0%	6	3.48	3.0%
115	2	1.31	1.1%	0	0.00	0.0%	2	1.14	1.0%
116	12	7.91	6.8%	2	9.28	8.0%	14	8.00	7.0%
117	9	5.98	5.1%	3	14.04	12.0%	12	6.99	6.0%
118	9	6.03	5.1%	1	4.72	4.0%	10	5.87	5.0%
119	7	4.73	4.0%	1	4.76	4.0%	8	4.74	4.0%
120	4	2.73	2.3%	0	0.00	0.0%	4	2.39	2.0%
121	5	3.44	2.8%	2	9.68	8.0%	7	4.21	3.5%
122	5	3.47	2.8%	0	0.00	0.0%	5	3.03	2.5%
123	4	2.80	2.3%	1	4.92	4.0%	5	3.06	2.5%
124	2	1.41	1.1%	1	4.96	4.0%	3	1.85	1.5%
125	8	5.68	4.5%	4	20.00	16.0%	12	7.46	6.0%
126	6	4.30	3.4%	0	0.00	0.0%	6	3.76	3.0%
127	12	8.66	6.8%	0	0.00	0.0%	12	7.58	6.0%
128	6	4.36	3.4%	2	10.24	8.0%	8	5.09	4.0%
129	5	3.66	2.8%	1	5.16	4.0%	6	3.85	3.0%
130	8	5.91	4.5%	2	10.40	8.0%	10	6.47	5.0%
131	5	3.72	2.8%	0	0.00	0.0%	5	3.26	2.5%
132	2	1.50	1.1%	1	5.28	4.0%	3	1.97	1.5%
133	2	1.51	1.1%	1	5.32	4.0%	3	1.99	1.5%
134	3	2.28	1.7%	0	0.00	0.0%	3	2.00	1.5%
135	0	0.00	0.0%	1	5.40	4.0%	1	0.67	0.5%
136	2	1.55	1.1%	0	0.00	0.0%	2	1.35	1.0%
137	1	0.78	0.6%	0	0.00	0.0%	1	0.68	0.5%
138	1	0.78	0.6%	0	0.00	0.0%	1	0.69	0.5%
139	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
140	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
141	2	1.60	1.1%	0	0.00	0.0%	2	1.40	1.0%
142	2	1.61	1.1%	0	0.00	0.0%	2	1.41	1.0%
143	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
144	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
145	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
146	0	0.00	0.0%	1	5.84	4.0%	1	0.73	0.5%
147	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
148	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
149	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
150	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
151	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
152	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
Total No.	176		87.6%	25		12.4%	201		100.0%
Mean		120.0			124.3			120.5	

Total legals 201

Total Recruits 52
Percent 25.9%

Total Post Recruits 149
Percent 74.1%

Appendix Table A6. Carapace length measurement of sampled legal male red king crab captured by vessel #2, SA 656338, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New shell No.	New shell Ave Length Calc.	New shell %	Old shell No.	Old shell Ave Length Calc.	Old shell %	Total No.	Total Ave Length Calc.	Total %
79	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
94	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
95	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
96	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
97	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
98	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
99	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
100	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
101	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
102	1	0.34	0.3%	0	0.00	0.0%	1	0.32	0.3%
103	1	0.34	0.3%	0	0.00	0.0%	1	0.32	0.3%
104	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
105	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
106	2	0.71	0.7%	0	0.00	0.0%	2	0.66	0.6%
107	4	1.43	1.3%	0	0.00	0.0%	4	1.33	1.2%
108	3	1.08	1.0%	0	0.00	0.0%	3	1.01	0.9%
109	7	2.54	2.3%	0	0.00	0.0%	7	2.38	2.2%
110	5	1.83	1.7%	0	0.00	0.0%	5	1.71	1.6%
111	9	3.33	3.0%	0	0.00	0.0%	9	3.11	2.8%
112	7	2.61	2.3%	0	0.00	0.0%	7	2.44	2.2%
113	11	4.14	3.7%	1	5.38	4.8%	12	4.22	3.7%
114	10	3.80	3.3%	1	5.43	4.8%	11	3.91	3.4%
115	11	4.22	3.7%	0	0.00	0.0%	11	3.94	3.4%
116	14	5.41	4.7%	2	11.05	9.5%	16	5.78	5.0%
117	12	4.68	4.0%	2	11.14	9.5%	14	5.10	4.4%
118	16	6.29	5.3%	0	0.00	0.0%	16	5.88	5.0%
119	14	5.55	4.7%	0	0.00	0.0%	14	5.19	4.4%
120	21	8.40	7.0%	0	0.00	0.0%	21	7.85	6.5%
121	16	6.45	5.3%	2	11.52	9.5%	18	6.79	5.6%
122	12	4.88	4.0%	1	5.81	4.8%	13	4.94	4.0%
123	16	6.56	5.3%	1	5.86	4.8%	17	6.51	5.3%
124	8	3.31	2.7%	0	0.00	0.0%	8	3.09	2.5%
125	14	5.83	4.7%	1	5.95	4.8%	15	5.84	4.7%
126	7	2.94	2.3%	0	0.00	0.0%	7	2.75	2.2%
127	7	2.96	2.3%	0	0.00	0.0%	7	2.77	2.2%
128	6	2.56	2.0%	1	6.10	4.8%	7	2.79	2.2%
129	6	2.58	2.0%	0	0.00	0.0%	6	2.41	1.9%
130	12	5.20	4.0%	2	12.38	9.5%	14	5.67	4.4%
131	12	5.24	4.0%	2	12.48	9.5%	14	5.71	4.4%
132	6	2.64	2.0%	1	6.29	4.8%	7	2.88	2.2%
133	8	3.55	2.7%	0	0.00	0.0%	8	3.31	2.5%
134	4	1.79	1.3%	1	6.38	4.8%	5	2.09	1.6%
135	7	3.15	2.3%	0	0.00	0.0%	7	2.94	2.2%
136	5	2.27	1.7%	0	0.00	0.0%	5	2.12	1.6%
137	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
138	1	0.46	0.3%	0	0.00	0.0%	1	0.43	0.3%
139	2	0.93	0.7%	1	6.62	4.8%	3	1.30	0.9%
140	0	0.00	0.0%	2	13.33	9.5%	2	0.87	0.6%
141	2	0.94	0.7%	0	0.00	0.0%	2	0.88	0.6%
142	1	0.47	0.3%	0	0.00	0.0%	1	0.44	0.3%
143	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
144	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
145	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
146	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
147	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
148	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
149	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
150	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
151	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
152	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
Total No.	300		93.5%	21		6.5%	321		100.0%
Mean		121.4			125.7			121.7	

Total legals 321

Total Recruits 60
Percent 18.7%

Total Post Recruits 261
Percent 81.3%

Appendix Table A7. Carapace length measurement summary of sampled legal male red king crab captured by vessels #1 and #2, SA 656401, Norton Sound Section, Eastern Bering Sea, August 1 – 11, 1988.

Carapace Length (mm)	New shell No.	New shell Ave Length Calc.	New shell %	Old shell No.	Old shell Ave Length Calc.	Old shell %	Total No.	Total Ave Length Calc.	Total %
79	1	0.10	0.1%	0	0.00	0.0%	1	0.07	0.1%
94	1	0.12	0.1%	0	0.00	0.0%	1	0.09	0.1%
95	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
96	1	0.12	0.1%	0	0.00	0.0%	1	0.09	0.1%
97	1	0.12	0.1%	0	0.00	0.0%	1	0.09	0.1%
98	2	0.24	0.2%	0	0.00	0.0%	2	0.18	0.2%
99	2	0.25	0.2%	0	0.00	0.0%	2	0.18	0.2%
100	1	0.12	0.1%	2	0.68	0.7%	3	0.27	0.3%
101	4	0.50	0.5%	3	1.02	1.0%	7	0.64	0.6%
102	10	1.27	1.2%	1	0.34	0.3%	11	1.02	1.0%
103	11	1.41	1.4%	2	0.70	0.7%	13	1.22	1.2%
104	11	1.42	1.4%	4	1.41	1.4%	15	1.42	1.4%
105	9	1.17	1.1%	9	3.19	3.0%	18	1.72	1.6%
106	18	2.37	2.2%	4	1.43	1.4%	22	2.12	2.0%
107	26	3.46	3.2%	10	3.61	3.4%	36	3.50	3.3%
108	24	3.22	3.0%	6	2.19	2.0%	30	2.94	2.7%
109	35	4.74	4.3%	6	2.21	2.0%	41	4.06	3.7%
110	29	3.96	3.6%	11	4.09	3.7%	40	4.00	3.6%
111	33	4.55	4.1%	13	4.88	4.4%	46	4.64	4.2%
112	34	4.73	4.2%	16	6.05	5.4%	50	5.09	4.5%
113	35	4.91	4.3%	8	3.05	2.7%	43	4.41	3.9%
114	35	4.96	4.3%	9	3.47	3.0%	44	4.56	4.0%
115	37	5.29	4.6%	10	3.89	3.4%	47	4.91	4.3%
116	35	5.04	4.3%	11	4.31	3.7%	46	4.85	4.2%
117	34	4.94	4.2%	12	4.74	4.1%	46	4.89	4.2%
118	31	4.54	3.9%	8	3.19	2.7%	39	4.18	3.5%
119	30	4.43	3.7%	14	5.63	4.7%	44	4.76	4.0%
120	27	4.02	3.4%	8	3.24	2.7%	35	3.81	3.2%
121	38	5.71	4.7%	18	7.36	6.1%	56	6.15	5.1%
122	26	3.94	3.2%	11	4.53	3.7%	37	4.10	3.4%
123	18	2.75	2.2%	10	4.16	3.4%	28	3.13	2.5%
124	15	2.31	1.9%	12	5.03	4.1%	27	3.04	2.5%
125	21	3.26	2.6%	12	5.07	4.1%	33	3.75	3.0%
126	27	4.23	3.4%	11	4.68	3.7%	38	4.35	3.5%
127	26	4.10	3.2%	7	3.00	2.4%	33	3.81	3.0%
128	11	1.75	1.4%	10	4.32	3.4%	21	2.44	1.9%
129	15	2.40	1.9%	6	2.61	2.0%	21	2.46	1.9%
130	19	3.07	2.4%	6	2.64	2.0%	25	2.95	2.3%
131	18	2.93	2.2%	1	0.44	0.3%	19	2.26	1.7%
132	11	1.80	1.4%	7	3.12	2.4%	18	2.16	1.6%
133	11	1.82	1.4%	4	1.80	1.4%	15	1.81	1.4%
134	8	1.33	1.0%	2	0.91	0.7%	10	1.22	0.9%
135	7	1.17	0.9%	5	2.28	1.7%	12	1.47	1.1%
136	4	0.68	0.5%	1	0.46	0.3%	5	0.62	0.5%
137	2	0.34	0.2%	0	0.00	0.0%	2	0.25	0.2%
138	2	0.34	0.2%	2	0.93	0.7%	4	0.50	0.4%
139	1	0.17	0.1%	0	0.00	0.0%	1	0.13	0.1%
140	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
141	4	0.70	0.5%	0	0.00	0.0%	4	0.51	0.4%
142	3	0.53	0.4%	2	0.96	0.7%	5	0.64	0.5%
143	1	0.18	0.1%	0	0.00	0.0%	1	0.13	0.1%
144	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
145	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
146	0	0.00	0.0%	1	0.49	0.3%	1	0.13	0.1%
147	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
148	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
149	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
150	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
151	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
152	0	0.00	0.0%	1	0.51	0.3%	1	0.14	0.1%
Total No.	805		73.1%	296		26.9%	1101		100.0%
Mean		117.5			118.6			117.8	

Total legals 1101

Total Recruits 323
Percent 29.3%

Total Post Recruits 778
Percent 70.7%

APPENDIX B

Appendix Table B1. Carapace length measurement summary of sampled sublegal male red king crab captured by vessel #1, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell			Old Shell			Total		
	No.	Ave Length Calc	%	No.	Ave Length Calc	%	No.	Ave Length Calc	%
56	1	0.12	0.2%	0	0.00	0.0%	1	0.10	0.2%
57	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	1	0.13	0.2%	0	0.00	0.0%	1	0.10	0.2%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	2	0.27	0.4%	0	0.00	0.0%	2	0.21	0.3%
63	1	0.14	0.2%	0	0.00	0.0%	1	0.11	0.2%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	1	0.14	0.2%	1	0.50	0.8%	2	0.22	0.3%
66	1	0.15	0.2%	1	0.51	0.8%	2	0.23	0.3%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	1	0.15	0.2%	0	0.00	0.0%	1	0.12	0.2%
69	1	0.15	0.2%	0	0.00	0.0%	1	0.12	0.2%
70	2	0.31	0.4%	0	0.00	0.0%	2	0.24	0.3%
71	1	0.16	0.2%	0	0.00	0.0%	1	0.12	0.2%
72	1	0.16	0.2%	0	0.00	0.0%	1	0.12	0.2%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	2	0.33	0.4%	1	0.58	0.8%	3	0.39	0.5%
76	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
77	1	0.17	0.2%	1	0.60	0.8%	2	0.27	0.3%
78	2	0.35	0.4%	1	0.60	0.8%	3	0.40	0.5%
79	0	0.00	0.0%	1	0.61	0.8%	1	0.14	0.2%
80	2	0.35	0.4%	1	0.62	0.8%	3	0.41	0.5%
81	6	1.08	1.3%	0	0.00	0.0%	6	0.84	1.0%
82	4	0.73	0.9%	3	1.91	2.3%	7	0.99	1.2%
83	4	0.74	0.9%	0	0.00	0.0%	4	0.57	0.7%
84	3	0.56	0.7%	2	1.30	1.6%	5	0.72	0.9%
85	6	1.13	1.3%	1	0.66	0.8%	7	1.03	1.2%
86	3	0.57	0.7%	2	1.33	1.6%	5	0.74	0.9%
87	11	2.12	2.4%	2	1.35	1.6%	13	1.95	2.2%
88	5	0.98	1.1%	0	0.00	0.0%	5	0.76	0.9%
89	7	1.38	1.6%	2	1.38	1.6%	9	1.38	1.6%
90	10	2.00	2.2%	3	2.09	2.3%	13	2.02	2.2%
91	6	1.21	1.3%	6	4.23	4.7%	12	1.88	2.1%
92	9	1.84	2.0%	2	1.43	1.6%	11	1.74	1.9%
93	14	2.89	3.1%	2	1.44	1.6%	16	2.57	2.8%
94	17	3.54	3.8%	8	5.83	6.2%	25	4.05	4.3%
95	24	5.06	5.3%	3	2.21	2.3%	27	4.42	4.7%
96	14	2.98	3.1%	3	2.23	2.3%	17	2.81	2.9%
97	28	6.02	6.2%	7	5.26	5.4%	35	5.85	6.0%
98	29	6.30	6.4%	7	5.32	5.4%	36	6.08	6.2%
99	22	4.83	4.9%	8	6.14	6.2%	30	5.12	5.2%
100	36	7.98	8.0%	7	5.43	5.4%	43	7.41	7.4%
101	26	5.82	5.8%	6	4.70	4.7%	32	5.57	5.5%
102	33	7.46	7.3%	9	7.12	7.0%	42	7.39	7.2%
103	27	6.17	6.0%	8	6.39	6.2%	35	6.22	6.0%
104	29	6.69	6.4%	6	4.84	4.7%	35	6.28	6.0%
105	17	3.96	3.8%	6	4.88	4.7%	23	4.16	4.0%
106	14	3.29	3.1%	6	4.93	4.7%	20	3.66	3.4%
107	9	2.14	2.0%	7	5.81	5.4%	16	2.95	2.8%
108	7	1.68	1.6%	1	0.84	0.8%	8	1.49	1.4%
109	5	1.21	1.1%	3	2.53	2.3%	8	1.58	1.4%
110	4	0.98	0.9%	1	0.85	0.8%	5	0.95	0.9%
111	2	0.49	0.4%	1	0.86	0.8%	3	0.57	0.5%
sum	451		77.8%	129		22.2%	580		100.0%
Mean		96.9			97.3			97.0	

Total sublegals 580

Appendix Table B2. Carapace length measurement of sampled sublegal male red king crab captured by vessel #2, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell No.	New Shell Ave Length Calc	New Shell %	Old Shell No.	Old Shell Ave Length Calc	Old Shell %	Total No.	Total Ave Length Calc	Total %
56	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
57	1	0.40	0.7%	0	0.00	0.0%	1	0.38	0.7%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
63	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
66	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
69	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
70	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
71	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
72	1	0.50	0.7%	0	0.00	0.0%	1	0.48	0.7%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
76	1	0.53	0.7%	0	0.00	0.0%	1	0.51	0.7%
77	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
78	2	1.08	1.4%	0	0.00	0.0%	2	1.05	1.3%
79	2	1.10	1.4%	0	0.00	0.0%	2	1.06	1.3%
80	1	0.56	0.7%	0	0.00	0.0%	1	0.54	0.7%
81	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
82	2	1.14	1.4%	0	0.00	0.0%	2	1.10	1.3%
83	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
84	2	1.17	1.4%	0	0.00	0.0%	2	1.13	1.3%
85	2	1.18	1.4%	1	17.00	20.0%	3	1.71	2.0%
86	2	1.19	1.4%	0	0.00	0.0%	2	1.15	1.3%
87	2	1.21	1.4%	0	0.00	0.0%	2	1.17	1.3%
88	5	3.06	3.5%	0	0.00	0.0%	5	2.95	3.4%
89	5	3.09	3.5%	0	0.00	0.0%	5	2.99	3.4%
90	4	2.50	2.8%	0	0.00	0.0%	4	2.42	2.7%
91	7	4.42	4.9%	0	0.00	0.0%	7	4.28	4.7%
92	1	0.64	0.7%	0	0.00	0.0%	1	0.62	0.7%
93	4	2.58	2.8%	0	0.00	0.0%	4	2.50	2.7%
94	8	5.22	5.6%	0	0.00	0.0%	8	5.05	5.4%
95	5	3.30	3.5%	1	19.00	20.0%	6	3.83	4.0%
96	13	8.67	9.0%	0	0.00	0.0%	13	8.38	8.7%
97	6	4.04	4.2%	1	19.40	20.0%	7	4.56	4.7%
98	9	6.13	6.3%	0	0.00	0.0%	9	5.92	6.0%
99	9	6.19	6.3%	0	0.00	0.0%	9	5.98	6.0%
100	8	5.56	5.6%	1	20.00	20.0%	9	6.04	6.0%
101	13	9.12	9.0%	0	0.00	0.0%	13	8.81	8.7%
102	6	4.25	4.2%	0	0.00	0.0%	6	4.11	4.0%
103	11	7.87	7.6%	0	0.00	0.0%	11	7.60	7.4%
104	7	5.06	4.9%	0	0.00	0.0%	7	4.89	4.7%
105	3	2.19	2.1%	1	21.00	20.0%	4	2.02	2.7%
106	1	0.74	0.7%	0	0.00	0.0%	1	0.71	0.7%
107	1	0.74	0.7%	0	0.00	0.0%	1	0.72	0.7%
108	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
109	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
110	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
111	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
sum	144		96.6%	5		3.4%	149		100.0%
Mean		95.4			96.4			95.4	

Total sublegals 149

Appendix Table B3. Carapace length measurement summary of sampled sublegal male red king crab captured by vessel #1, SA 666401, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell No.	New Shell Ave Length Calc	New Shell %	Old Shell No.	Old Shell Ave Length Calc	Old Shell %	Total No.	Total Ave Length Calc	Total %
56	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
57	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	1	1.00	1.7%	0	0.00	0.0%	1	0.94	1.6%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
63	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
66	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
69	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
70	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
71	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
72	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
76	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
77	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
78	1	1.32	1.7%	0	0.00	0.0%	1	1.24	1.6%
79	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
80	2	2.71	3.4%	0	0.00	0.0%	2	2.54	3.2%
81	1	1.37	1.7%	0	0.00	0.0%	1	1.29	1.6%
82	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
83	1	1.41	1.7%	0	0.00	0.0%	1	1.32	1.6%
84	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
85	2	2.88	3.4%	0	0.00	0.0%	2	2.70	3.2%
86	1	1.46	1.7%	0	0.00	0.0%	1	1.37	1.6%
87	2	2.95	3.4%	0	0.00	0.0%	2	2.76	3.2%
88	1	1.49	1.7%	0	0.00	0.0%	1	1.40	1.6%
89	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
90	0	0.00	0.0%	1	22.50	25.0%	1	1.43	1.6%
91	3	4.63	5.1%	0	0.00	0.0%	3	4.33	4.8%
92	1	1.56	1.7%	0	0.00	0.0%	1	1.46	1.6%
93	1	1.58	1.7%	0	0.00	0.0%	1	1.48	1.6%
94	2	3.19	3.4%	1	23.50	25.0%	3	4.48	4.8%
95	4	6.44	6.8%	0	0.00	0.0%	4	6.03	6.3%
96	2	3.25	3.4%	0	0.00	0.0%	2	3.05	3.2%
97	6	9.86	10.2%	1	24.25	25.0%	7	10.70	11.1%
98	8	13.29	13.6%	0	0.00	0.0%	8	12.44	12.7%
99	1	1.68	1.7%	0	0.00	0.0%	1	1.57	1.6%
100	4	6.78	6.8%	0	0.00	0.0%	4	6.35	6.3%
101	6	10.27	10.2%	0	0.00	0.0%	6	9.62	9.5%
102	2	3.46	3.4%	1	25.50	25.0%	3	4.86	4.8%
103	3	5.24	5.1%	0	0.00	0.0%	3	4.90	4.8%
104	4	7.05	6.8%	0	0.00	0.0%	4	6.60	6.3%
105	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
106	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
107	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
108	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
109	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
110	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
111	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
sum	59		93.7%	4		6.3%	63		100.0%
Mean		94.9			95.8			94.9	

Total sublegals 63

Appendix Table B4. Carapace length measurement of sampled sublegal male red king crab captured by vessel #1, SA 656401, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell No.	New Shell Ave Length Calc	New Shell %	Old Shell No.	Old Shell Ave Length Calc	Old Shell %	Total No.	Total Ave Length Calc	Total %
56	1	0.14	0.3%	0	0.00	0.0%	1	0.11	0.2%
57	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	2	0.32	0.5%	0	0.00	0.0%	2	0.24	0.4%
63	1	0.16	0.3%	0	0.00	0.0%	1	0.12	0.2%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	1	0.17	0.3%	1	0.52	0.8%	2	0.25	0.4%
66	1	0.17	0.3%	1	0.53	0.8%	2	0.26	0.4%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	1	0.17	0.3%	0	0.00	0.0%	1	0.13	0.2%
69	1	0.18	0.3%	0	0.00	0.0%	1	0.13	0.2%
70	2	0.36	0.5%	0	0.00	0.0%	2	0.27	0.4%
71	1	0.18	0.3%	0	0.00	0.0%	1	0.14	0.2%
72	1	0.18	0.3%	0	0.00	0.0%	1	0.14	0.2%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	2	0.38	0.5%	1	0.60	0.8%	3	0.44	0.6%
76	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
77	1	0.20	0.3%	1	0.62	0.8%	2	0.38	0.4%
78	1	0.20	0.3%	1	0.62	0.8%	2	0.38	0.4%
79	0	0.00	0.0%	1	0.63	0.8%	1	0.15	0.2%
80	0	0.00	0.0%	1	0.64	0.8%	1	0.15	0.2%
81	5	1.03	1.3%	0	0.00	0.0%	5	0.78	1.0%
82	4	0.84	1.0%	3	1.97	2.4%	7	1.11	1.4%
83	3	0.64	0.8%	0	0.00	0.0%	3	0.48	0.6%
84	3	0.64	0.8%	2	1.34	1.6%	5	0.81	1.0%
85	4	0.87	1.0%	1	0.68	0.8%	5	0.82	1.0%
86	2	0.44	0.5%	2	1.38	1.6%	4	0.67	0.8%
87	9	2.00	2.3%	2	1.39	1.6%	11	1.85	2.1%
88	4	0.90	1.0%	0	0.00	0.0%	4	0.68	0.8%
89	7	1.59	1.8%	2	1.42	1.6%	9	1.55	1.7%
90	10	2.30	2.6%	2	1.44	1.6%	12	2.09	2.3%
91	3	0.70	0.8%	6	4.37	4.8%	9	1.58	1.7%
92	8	1.88	2.0%	2	1.47	1.6%	10	1.78	1.9%
93	13	3.08	3.3%	2	1.49	1.6%	15	2.70	2.9%
94	15	3.60	3.8%	7	5.26	5.6%	22	4.00	4.3%
95	20	4.85	5.1%	3	2.20	2.4%	23	4.23	4.4%
96	12	2.94	3.1%	3	2.30	2.4%	15	2.79	2.9%
97	22	5.44	5.6%	6	4.66	4.8%	28	5.25	5.4%
98	21	5.25	5.4%	7	5.49	5.6%	28	5.31	5.4%
99	21	5.30	5.4%	8	6.34	6.4%	29	5.55	5.6%
100	32	8.16	8.2%	7	5.60	5.6%	39	7.54	7.5%
101	20	5.15	5.1%	6	4.85	4.8%	26	5.08	5.0%
102	31	8.07	7.9%	8	6.53	6.4%	39	7.69	7.5%
103	24	6.31	6.1%	8	6.59	6.4%	32	6.38	6.2%
104	25	6.63	6.4%	6	4.99	4.8%	31	6.24	6.0%
105	17	4.55	4.3%	6	5.04	4.8%	23	4.67	4.4%
106	14	3.79	3.6%	6	5.09	4.8%	20	4.10	3.9%
107	9	2.46	2.3%	7	5.99	5.6%	16	3.31	3.1%
108	7	1.93	1.8%	1	0.86	0.8%	8	1.67	1.5%
109	5	1.39	1.3%	3	2.62	2.4%	8	1.69	1.5%
110	4	1.12	1.0%	1	0.88	0.8%	5	1.06	1.0%
111	2	0.57	0.5%	1	0.89	0.8%	3	0.64	0.6%
sum	392		75.8%	125		24.2%	517		100.0%
Mean		97.2			97.4			97.2	

Total sublegals 517

Appendix Table B5. Carapace length measurement summary of sublegal male red king crab captured by vessel #2, SA 666336, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell No.	New Shell Ave Length Calc	New Shell %	Old Shell No.	Old Shell Ave Length Calc	Old Shell %	Total No.	Total Ave Length Calc	Total %
56	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
57	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
63	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
66	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
69	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
70	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
71	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
72	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
76	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
77	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
78	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
79	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
80	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
81	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
82	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
83	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
84	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
85	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
86	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
87	1	4.35	5.0%	0	0.00	0.0%	1	4.14	4.8%
88	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
89	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
90	1	4.50	5.0%	0	0.00	0.0%	1	4.29	4.8%
91	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
92	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
93	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
94	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
95	2	9.50	10.0%	0	0.00	0.0%	2	9.05	9.5%
96	1	4.80	5.0%	0	0.00	0.0%	1	4.57	4.8%
97	2	9.70	10.0%	0	0.00	0.0%	2	9.24	9.5%
98	2	9.80	10.0%	0	0.00	0.0%	2	9.33	9.5%
99	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
100	1	5.00	5.0%	1	100.00	100.0%	2	9.52	9.5%
101	4	20.20	20.0%	0	0.00	0.0%	4	19.24	19.0%
102	2	10.20	10.0%	0	0.00	0.0%	2	9.71	9.5%
103	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
104	2	10.40	10.0%	0	0.00	0.0%	2	9.90	9.5%
105	2	10.50	10.0%	0	0.00	0.0%	2	10.00	9.5%
106	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
107	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
108	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
109	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
110	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
111	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
sum	20		95.2%	1		4.8%	21		100.0%
Mean		99.0			100.0			99.0	

Total sublegals 21

Appendix Table B6. Carapace length measurement summary of sublegal male red king crab captured by vessel #2, SA 656401, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell No.	New Shell Ave Length Calc	New Shell %	Old Shell No.	Old Shell Ave Length Calc	Old Shell %	Total No.	Total Ave Length Calc	Total %
56	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
57	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
63	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
66	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
69	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
70	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
71	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
72	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
76	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
77	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
78	1	3.90	5.0%	0	0.00	0.0%	1	3.55	4.5%
79	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
80	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
81	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
82	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
83	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
84	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
85	1	4.25	5.0%	1	42.50	50.0%	2	7.73	9.1%
86	1	4.30	5.0%	0	0.00	0.0%	1	3.91	4.5%
87	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
88	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
89	1	4.45	5.0%	0	0.00	0.0%	1	4.05	4.5%
90	1	4.50	5.0%	0	0.00	0.0%	1	4.09	4.5%
91	1	4.55	5.0%	0	0.00	0.0%	1	4.14	4.5%
92	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
93	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
94	1	4.70	5.0%	0	0.00	0.0%	1	4.27	4.5%
95	0	0.00	0.0%	1	47.50	50.0%	1	4.32	4.5%
96	3	14.40	15.0%	0	0.00	0.0%	3	13.09	13.6%
97	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
98	1	4.90	5.0%	0	0.00	0.0%	1	4.45	4.5%
99	2	9.90	10.0%	0	0.00	0.0%	2	9.00	9.1%
100	2	10.00	10.0%	0	0.00	0.0%	2	9.09	9.1%
101	1	5.05	5.0%	0	0.00	0.0%	1	4.59	4.5%
102	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
103	3	15.45	15.0%	0	0.00	0.0%	3	14.05	13.6%
104	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
105	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
106	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
107	1	5.35	5.0%	0	0.00	0.0%	1	4.86	4.5%
108	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
109	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
110	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
111	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
sum	20		90.9%	2		9.1%	22		100.0%
Mean		95.7			90.0			95.2	

Total sublegals 22

Appendix Table B7. Carapace length measurement summary of sublegal male red king crab captured by vessel #2, SA 656330, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell No.	New Shell Ave Length Calc	New Shell %	Old Shell No.	Old Shell Ave Length Calc	Old Shell %	Total No.	Total Ave Length Calc	Total %
56	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
57	1	0.55	1.0%	0	0.00	0.0%	1	0.54	0.9%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
63	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
66	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
69	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
70	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
71	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
72	1	0.69	1.0%	0	0.00	0.0%	1	0.60	0.9%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
76	1	0.73	1.0%	0	0.00	0.0%	1	0.72	0.9%
77	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
78	1	0.75	1.0%	0	0.00	0.0%	1	0.74	0.9%
79	2	1.52	1.9%	0	0.00	0.0%	2	1.49	1.9%
80	1	0.77	1.0%	0	0.00	0.0%	1	0.75	0.9%
81	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
82	2	1.58	1.9%	0	0.00	0.0%	2	1.55	1.9%
83	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
84	2	1.62	1.9%	0	0.00	0.0%	2	1.58	1.9%
85	1	0.82	1.0%	0	0.00	0.0%	1	0.80	0.9%
86	1	0.83	1.0%	0	0.00	0.0%	1	0.81	0.9%
87	1	0.84	1.0%	0	0.00	0.0%	1	0.82	0.9%
88	5	4.23	4.8%	0	0.00	0.0%	5	4.15	4.7%
89	4	3.42	3.8%	0	0.00	0.0%	4	3.36	3.8%
90	2	1.73	1.9%	0	0.00	0.0%	2	1.70	1.9%
91	6	5.25	5.8%	0	0.00	0.0%	6	5.15	5.7%
92	1	0.88	1.0%	0	0.00	0.0%	1	0.87	0.9%
93	4	3.58	3.8%	0	0.00	0.0%	4	3.51	3.8%
94	7	6.33	6.7%	0	0.00	0.0%	7	6.21	6.6%
95	3	2.74	2.9%	0	0.00	0.0%	3	2.69	2.8%
96	9	8.31	8.7%	0	0.00	0.0%	9	8.15	8.5%
97	4	3.73	3.8%	1	48.50	50.0%	5	4.58	4.7%
98	6	5.65	5.8%	0	0.00	0.0%	6	5.55	5.7%
99	7	6.66	6.7%	0	0.00	0.0%	7	6.54	6.6%
100	5	4.81	4.8%	0	0.00	0.0%	5	4.72	4.7%
101	8	7.77	7.7%	0	0.00	0.0%	8	7.62	7.5%
102	4	3.92	3.8%	0	0.00	0.0%	4	3.85	3.8%
103	8	7.92	7.7%	0	0.00	0.0%	8	7.77	7.5%
104	5	5.00	4.8%	0	0.00	0.0%	5	4.91	4.7%
105	1	1.01	1.0%	1	52.50	50.0%	2	1.98	1.9%
106	1	1.02	1.0%	0	0.00	0.0%	1	1.00	0.9%
107	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
108	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
109	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
110	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
111	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
sum	104		98.1%	2		1.9%	106		100.0%
Mean		94.7			101.0			94.8	

Total sublegals 106

Appendix Table B8. Carapace length measurement summary of sampled sublegal male red king crab captured by vessels #1 and 2, SA 656401, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

Carapace Length (mm)	New Shell No.	New Shell Ave Length Calc	New Shell %	Old Shell No.	Old Shell Ave Length Calc	Old Shell %	Total No.	Total Ave Length Calc	Total %
56	1	0.14	0.2%	0	0.00	0.0%	1	0.10	0.2%
57	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
58	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
59	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
60	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
61	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
62	2	0.30	0.5%	0	0.00	0.0%	2	0.23	0.4%
63	1	0.15	0.2%	0	0.00	0.0%	1	0.12	0.2%
64	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
65	1	0.16	0.2%	1	0.51	0.8%	2	0.24	0.4%
66	1	0.16	0.2%	1	0.52	0.8%	2	0.24	0.4%
67	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
68	1	0.17	0.2%	0	0.00	0.0%	1	0.13	0.2%
69	1	0.17	0.2%	0	0.00	0.0%	1	0.13	0.2%
70	2	0.34	0.5%	0	0.00	0.0%	2	0.26	0.4%
71	1	0.17	0.2%	0	0.00	0.0%	1	0.13	0.2%
72	1	0.17	0.2%	0	0.00	0.0%	1	0.13	0.2%
73	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
74	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
75	2	0.36	0.5%	1	0.59	0.8%	3	0.42	0.6%
76	0	0.00	0.0%	0	0.00	0.0%	0	0.00	0.0%
77	1	0.19	0.2%	1	0.61	0.8%	2	0.29	0.4%
78	2	0.38	0.5%	1	0.61	0.8%	3	0.43	0.6%
79	0	0.00	0.0%	1	0.62	0.8%	1	0.15	0.2%
80	0	0.00	0.0%	1	0.63	0.8%	1	0.15	0.2%
81	5	0.98	1.2%	0	0.00	0.0%	5	0.75	0.9%
82	4	0.80	1.0%	3	1.94	2.4%	7	1.06	1.3%
83	3	0.60	0.7%	0	0.00	0.0%	3	0.46	0.6%
84	3	0.61	0.7%	2	1.32	1.6%	5	0.78	0.9%
85	5	1.03	1.2%	2	1.34	1.6%	7	1.10	1.3%
86	3	0.63	0.7%	2	1.35	1.6%	5	0.80	0.9%
87	9	1.90	2.2%	2	1.37	1.6%	11	1.78	2.0%
88	4	0.85	1.0%	0	0.00	0.0%	4	0.65	0.7%
89	8	1.73	1.9%	2	1.48	1.6%	10	1.65	1.9%
90	11	2.40	2.7%	2	1.42	1.6%	13	2.17	2.4%
91	4	0.88	1.0%	6	4.30	4.7%	10	1.69	1.9%
92	8	1.79	1.9%	2	1.45	1.6%	10	1.71	1.9%
93	13	2.93	3.2%	2	1.46	1.6%	15	2.59	2.8%
94	16	3.65	3.9%	7	5.18	5.5%	23	4.01	4.3%
95	20	4.61	4.9%	4	2.99	3.1%	24	4.23	4.5%
96	15	3.50	3.6%	3	2.27	2.4%	18	3.21	3.3%
97	22	5.18	5.3%	6	4.58	4.7%	28	5.04	5.2%
98	22	5.23	5.3%	7	5.40	5.5%	29	5.27	5.4%
99	23	5.53	5.6%	8	6.24	6.3%	31	5.69	5.8%
100	34	8.25	8.3%	7	5.51	5.5%	41	7.61	7.6%
101	21	5.15	5.1%	6	4.77	4.7%	27	5.06	5.0%
102	31	7.67	7.5%	8	6.43	6.3%	39	7.38	7.2%
103	27	6.75	6.6%	8	6.49	6.3%	35	6.69	6.5%
104	25	6.31	6.1%	6	4.91	4.7%	31	5.98	5.8%
105	17	4.33	4.1%	6	4.96	4.7%	23	4.48	4.3%
106	14	3.60	3.4%	6	5.01	4.7%	20	3.93	3.7%
107	10	2.60	2.4%	7	5.90	5.5%	17	3.37	3.2%
108	7	1.83	1.7%	1	0.85	0.8%	8	1.60	1.5%
109	5	1.32	1.2%	3	2.57	2.4%	8	1.62	1.5%
110	4	1.07	1.0%	1	0.87	0.8%	5	1.02	0.9%
111	2	0.54	0.5%	1	0.87	0.8%	3	0.62	0.6%
sum	412		76.4%	127		23.6%	539		100.0%
Mean		97.1			97.3			97.2	

Total sublegals 539

APPENDIX C

Appendix Table C1. Carapace length measurement summary of sampled female red king crab captured by vessel #1, SA 656401 Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

NORTON SOUND FEMALE KING CRAB CATCH SAMPLING

Stat.Area 656401 Vessel #1 8 1-11 88 Recorder AL

JUVENILE		ADULT SIZE PER % OVIGERITY							ADULT SIZE PER % OVIGERITY						
mm	no.	mm	Full	Hi	Med	Low	0	Sum	mm	Full	Hi	Med	Low	0	Sum
50		60						0	91	8	1		1		10
51		61						0	92	6	1				7
52		62						0	93	5	3		2		10
53		63						0	94	1	1				2
54		64	1					1	95	3					3
55		65						0	96		1				1
56	1	66						0	97	3	1				4
57		67			1			1	98	1					1
58	2	68	2	2				4	99	2	1				3
59	1	69	2	1				3	100						0
60	1	70						0	101	2					2
61	2	71		4	2			6	102	3					3
62	4	72	6	1				7	103						0
63	5	73	5	3				8	104	1	1				2
64	1	74	4	2				6	105						0
65	7	75	6	2				10	106		1				1
66	3	76	5	1				7	107						0
67	2	77	5	3	1			10	108						0
68	5	78	6	4	2	1		17	109			1			1
69	11	79	10	1		3		14	110						0
70	9	80	9	8				17	111						0
71	9	81	7	2	1			10	112						0
72	3	82	11	6		1		18	113						0
73	3	83	9	4	1	1		15	114						0
74	5	84	10	6				16	115						0
75	2	85	11	3				14	116						0
76	1	86	5	1				6	117						0
77	1	87	8	6	1	1		16	118						0
78	4	88	10	3				13	119						0
79		89	7	3	1			11	120						0
80		90	4	3		1		8	121						0
									122				1		1
	82		143	69	10	8	0	230		35	11	1	4	0	51

TOTAL ADULTS/OVIGERITY - - 178 80 11 12 0 281
% ADULTS/OVIGERITY - - - -63.3 28.4 3.9 4.2 0

MEAN 68.5 WEIGHTED MEAN ADULT LENGTH - - 83.6
VAR. 24.7 VARIANCE OF THE MEAN LENGTH -- 66.2

Full=90-100%, Hi=60-89%, Med=30-59%, Lo=1-29%

Appendix Table C2. Carapace length measurement summary of sampled female red king crab captured by vessel #2, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

NORTON SOUND FEMALE KING CRAB CATCH SAMPLING

Stat.Area 656330 & 666330 Vessel #2 8 1-11 88 Recorder JGG

JUVENILE		ADULT SIZE PER % OVIGERITY							ADULT SIZE PER % OVIGERITY						
mm	no.	mm	Full	Hi	Med	Low	Ø	Sum	mm	Full	Hi	Med	Low	Ø	Sum
50		60						0	91						0
51		61						0	92						0
52		62						0	93						0
53		63						0	94			1			1
54		64						0	95						0
55		65						0	96						0
56		66						0	97						0
57		67						0	98						0
58		68						0	99						0
59		69						0	100						0
60		70						0	101						0
61		71			1			1	102						0
62		72						0	103						0
63		73						0	104						0
64		74						0	105						0
65		75						0	106						0
66		76						0	107						0
67		77						0	108						0
68		78						0	109						0
69		79						0	110						0
70	1	80						0	111						0
71		81						0	112						0
72		82						0	113						0
73		83						0	114						0
74		84						0	115						0
75		85						0	116						0
76		86						0	117						0
77		87						0	118						0
78		88						0	119						0
79		89						0	120						0
80		90						0	121						0
	1		0	0	1	0	0	1		0	0	1	0	0	1

TOTAL ADULTS/OVIGERITY - - 0 0 2 0 0 2
% ADULTS/OVIGERITY - - - - 0 0 100 0 0

MEAN WEIGHTED MEAN ADULT LENGTH - - 82.5
VAR. VARIANCE OF THE MEAN LENGTH -- 264

Full=90-100%, Hi=60-89%, Med=30-59%, Lo=1-29%

Appendix Table C3. Carapace length measurment summary of sampled female red king crab captured by vessel #2, SA 666330, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

NORTON SOUND FEMALE KING CRAB CATCH SAMPLING

Stat.Area 666330 Vessel #2 8 1-11 88 Recorder JGG

JUVENILE		ADULT SIZE PER % OVIGERITY							ADULT SIZE PER % OVIGERITY						
mm	no.	mm	Full	Hi	Med	Low	Ø	Sum	mm	Full	Hi	Med	Low	Ø	Sum
50		60						0	91						0
51		61						0	92						0
52		62						0	93						0
53		63						0	94						0
54		64						0	95						0
55		65						0	96						0
56		66						0	97						0
57		67						0	98						0
58		68						0	99						0
59		69						0	100						0
60		70						0	101						0
61		71						0	102						0
62		72						0	103						0
63		73						0	104						0
64		74						0	105						0
65		75						0	106						0
66		76						0	107						0
67		77						0	108						0
68		78						0	109						0
69		79						0	110						0
70	1	80						0	111						0
71		81						0	112						0
72		82						0	113						0
73		83						0	114						0
74		84						0	115						0
75		85						0	116						0
76		86						0	117						0
77		87						0	118						0
78		88						0	119						0
79		89						0	120						0
80		90						0	121						0
	1		0	0	0	0	0	0		0	0	0	0	0	0

TOTAL ADULTS/OVIGERITY - - 0 0 0 0 0 0
% ADULTS/OVIGERITY - - - - ERR ERR ERR ERR ERR

MEAN ERR WEIGHTED MEAN ADULT LENGTH - - ERR
VAR. ERR VARIANCE OF THE MEAN LENGTH — ERR

Full=90-100%, Hi=60-89%, Med=30-59%, Lo=1-29%

Appendix Table C4. Carapace length measurement summary of sampled female red king crab captured by vessel #2, SA 656330, Norton Sound Section, Eastern Bering Sea, August 1 - 11, 1988.

NORTON SOUND FEMALE KING CRAB CATCH SAMPLING

Stat.Area 656330 Vessel #2 8 1-11 88 Recorder JGG

JUVENILE		ADULT SIZE PER % OVIGERITY							ADULT SIZE PER % OVIGERITY						
mm	no.	mm	Full	Hi	Med	Low	Ø	Sum	mm	Full	Hi	Med	Low	Ø	Sum
50		60						0	91						0
51		61						0	92						0
52		62						0	93						0
53		63						0	94			1			1
54		64						0	95						0
55		65						0	96						0
56		66						0	97						0
57		67						0	98						0
58		68						0	99						0
59		69						0	100						0
60		70						0	101						0
61		71			1			1	102						0
62		72						0	103						0
63		73						0	104						0
64		74						0	105						0
65		75						0	106						0
66		76						0	107						0
67		77						0	108						0
68		78						0	109						0
69		79						0	110						0
70		80						0	111						0
71		81						0	112						0
72		82						0	113						0
73		83						0	114						0
74		84						0	115						0
75		85						0	116						0
76		86						0	117						0
77		87						0	118						0
78		88						0	119						0
79		89						0	120						0
80		90						0	121						0
	0		0	0	1	0	0	1		0	0	1	0	0	1
								TOTAL ADULTS/OVIGERITY - -		0	0	2	0	0	2
								% ADULTS/OVIGERITY - - - -		0	0	100	0	0	

MEAN WEIGHTED MEAN ADULT LENGTH - - 82.5
VAR. VARIANCE OF THE MEAN LENGTH — 264

Full=90-100%, Hi=60-89%, Med=30-59%, Lo=1-29%