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Report to Industry on the 2005 Eastern Bering Sea Crab Survey

July 2006

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Cover photo: Dr. Robert S. Otto holding a red king crab caught on the eastern Bering Sea survey. An accomplished shellfish biologist, Dr. Otto retired in December of 2005 after 31 years with the National Marine Fisheries Service.

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Alaska Fisheries Science Center
Processed Report 2006-11

REPORT TO INDUSTRY ON THE 2005 EASTERN BERING SEA CRAB SURVEY

by
L. J. Rugolo, C. E. Armistead, and J. A. Haaga

National Marine Fisheries Service
Alaska Fisheries Science Center
Kodiak Fisheries Research Center
301 Research Court
Kodiak, AK 99615-7400

http://www.afsc.noaa.gov/kodiak

July 2006

RESULTS OF THE 2005 NMFS BERING SEA CRAB SURVEY
EXECUTIVE SUMMARY

This document summarizes data to be presented in the Report to Industry on the 2005 Eastern Bering Sea Trawl Survey. Numbers presented are trawl survey indices of population level and do not necessarily represent absolute abundance.

For further information, contact Dr. Louis Rugolo, NMFS, 301 Research Court, Kodiak, AK 99615. Phone (907) 481-1700. GHLs (Guideline Harvest Levels) are for the combined open-access and CDQ fisheries. This draft reflects data analysis and management decision making through 25 August, 2005

Red king crab *(Paralithodes camtschaticus)* Bristol Bay.

Legal males:	10.0 million crabs; 22% decrease.
Pre-recruits:	10.4 million crabs; 1% increase.
Large females:	42.6 million crabs; 35% increase.
Status:	Abundance of legal males declined and that of pre-recruit males was stable. Abundance of mature females increased but not markedly considering the precision of stock abundance estimates. Almost all new shell females carried new eggs. Reproductive population estimates are above the minimum stock size threshold (MSST), the stock is not considered to be in the overfished level of abundance although it remains far below the peak population levels of the 1970s.
GHL:	18.3 million pounds (8,312 metric tons(t)). Fishery opened 15 October, 2005.

Red king crab *(P. camtschaticus)* Pribilof District.

Legal males:	0.3 million crabs; 67% decrease, low reliability.
Pre-recruits:	0.0 million crabs; unchanged, low reliability.
Large females:	1.4 million crabs; 150% increase, low reliability.
Status:	Crabs are highly concentrated, and indices have very low precision. Reproductive population estimates are above the MSST, the stock is not considered to be in the overfished level of abundance. No future recruitment is apparent. Red king crabs in the Pribilof Islands have been historically harvested along with blue king crabs and are currently the dominant of the two species. There are concerns as to the low reliability of estimates and that unacceptable levels of blue king crab incidental catch could occur in a red king crab fishery.
GHL:	Fishery did not open in 2005.

Pribilof Islands blue king crab *(P. platypus)* Pribilof District.

Legal males:	0.1 million crabs; 450% increase.
Pre-recruits:	0.0 million crabs; 100% decrease.
Large females:	0.3 million crabs; 217% increase.
Status:	Population abundance is low and trends are not easily detectable. Little or no recruitment is apparent. Lowest total population estimates on record. Reproductive population estimate, which fell below the MSST in 2002, 2003 and 2004, remains so in 2005. The stock is considered to be in the overfished level of abundance.
GHL:	Fishery did not open 2005.

St. Matthew blue king crab *(P. platypus)* Northern District.

Legal males:	0.6 million crabs; 16% decrease, no real change.
Pre-recruits:	0.3 million crabs; 44% increase, no real change.
Large females:	0.2 million crabs; 4% decrease. Not well estimated.
Status:	Indices are affected by the portion of the stock occupying untrawlable grounds. Population declined steeply in 1999 and fell below the MSST. Reproductive population estimates continue to be below the MMST through 2002, but rose just above the MMST in 2003 only to fall below again in 2004 and remains so in 2005. The stock continues to be in the overfished level of abundance. The picture is clouded by large uncertainty in female abundance. The abundance of mature males was below the threshold for opening the fishery.
GHL:	Fishery did not open in 2005.

Tanner crab *(Chionoecetes bairdi)* Eastern District.

Legal males:	11.4 million crabs; 112% increase.
Pre-recruits:	52.0 million crabs; 64% increase.
Large females:	29.0 million crabs; 166% increase.
Status:	Population indices increasing but both estimates and recovering stock status are uncertain. Reproductive population estimate was below the MSST from 1997-2002, just barely above in 2003, below MSST in 2004 but it rose well above MSST in 2005. Commencing in 2005, the stock is being managed in two segments, east and west of 166° W longitude. Threshold status criteria were not met east of 166° but a small fishery will occur west of 166°. The mature females biomass is well below the threshold value of 21 million pounds required to open a fishery.
GHL:	1.6 million pounds (735 t). Fishery opened 15 October, 2005.

Snow crab *(C. opilio)* All districts combined.

Large males:	72.1 million crabs; 5% increase.
Pre-recruits:	284.1 million crabs; 168% increase.
Large females:	1,630.8 million crabs; 102% increase.
Status:	Large males stable and pre-recruit males increased. Large females increased and apparently there has been some recruitment to the stock at the lower end of the mature size range. Recruitment to female reproductive stock over several years is still evidenced by high frequencies of old shell crab, especially at the largest sizes and despite the increase in overall abundance. There is some concern as to relatively high frequencies of females without eggs in the old shell group and that high harvest levels in small areas may be leading to lack of reproductive success in the component of the mature female stock associated with areas of fishery exploitation. Reproductive population estimates that slightly exceeded MSST in 2001 were well below the MSST in 2002, 2003 and 2004. The stock is considered to be in the overfished level of abundance but is above the 50% MSST. Under the current rebuilding plan and harvest strategy the fishery would be closed if the stock fell below 50% MSST.
GHL:	37.2 million pounds (16,863 t). Fishery opened 15 October, 2005.

Hair crab *(Erimacrus isenbeckii)* All districts combined.

Legal males:	0.3 million crabs; 65% decrease.
Large females:	0.7 million crabs; 190% increase. Not well estimated.
Status:	The population has been declining for several years. Recruitment trends are unclear due to poor representation of small crabs in the survey.
GHL:	Fishery did not open in 2005.

THE 2005 EASTERN BERING SEA SURVEY

The National Marine Fisheries Service (NMFS) conducts an annual trawl survey in the eastern Bering Sea (EBS) 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 the fishing industry 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. Results are presented for red king crab (*Paralithodes camtschaticus*), blue king crab (*P. platypus*), hair crab (*Erimacrus isenbeckii*), Tanner crab (*Chionoecetes bairdi*) and snow crab (*C. opilio*).

Information on groundfish resources is available from the Alaska Fisheries Science Center, 7600 Sand Point Way NE, Seattle, Washington 98115.

Landing statistics for 2005 are preliminary data obtained from the Alaska Department of Fish and Game (F. Bowers, ADF&G, Dutch Harbor, personal communication). Those needing final statistics should contact ADF&G directly.

Survey Area and Methods

The 2005 EBS crab survey consisted of 400 bottom trawl tows which covered an area of approximately 160,400 square nautical miles (nmi). The survey area (Figure 1) has been standardized since 1990. The survey was conducted aboard two chartered vessels, the FV *Aldebaran* and FV *Arcturus*, between 3 June and 22 July. The same vessels have been used since 1993. Methodology was identical to that of previous surveys, and most tows were made at the centers of squares defined by a 20x20 nmi (37x37 km) grid. Near St. Matthew Island and the Pribilof Islands, additional tows were made at the corners of squares. Average bottom water temperatures are shown in Chart 6 for each grid square.

Both vessels fished an eastern otter trawl with an 83 ft (25.3 m) headrope and a 112 ft (34.1 m) footrope. This has been the standard trawl since 1982. Each tow was one-half hour in duration; average length was 1.47 nmi (2.74 km). Crabs were sorted by species and sex, and then a sample of crabs was measured (to the nearest millimeter) to provide a size-frequency distribution. Crab sizes are reported as carapace width (cw) for Tanner, snow and hair crabs, and carapace length (cl) for all others. Procedures for estimating abundance were similar to previous years (see Appendix A). Note that population estimates are indexes and are most precise for large crabs; they may not represent absolute abundance and are least precise for females and small crab due to differential crab behavior and gear selectivity.

Because of variations in tow length, catches presented in accompanying charts and tables are standardized to the nearest whole number of crab caught per square nautical mile. Where more than one tow was made in a square (including corner tows), charts indicate average crab density for all tows in that square. Tables 7-11 present data for all tows where a species was caught, without averaging. It is advisable to cross-reference charts and tables.

The following abbreviations are used in the text: (in) inches, (m) meters, (km) kilometers, (mm) millimeters, (fm) fathoms, (lbs) pounds, (t) metric tons, (°C) degrees Celsius, (nmi) nautical miles, (cl) carapace length, (cw) carapace width, (MSST) minimum stock size threshold, (NPFMC) North Pacific Fishery Management Council, and (MSFCMA) Magnuson-Stevens Fishery Conservation and Management Act. GHL refers to Guideline

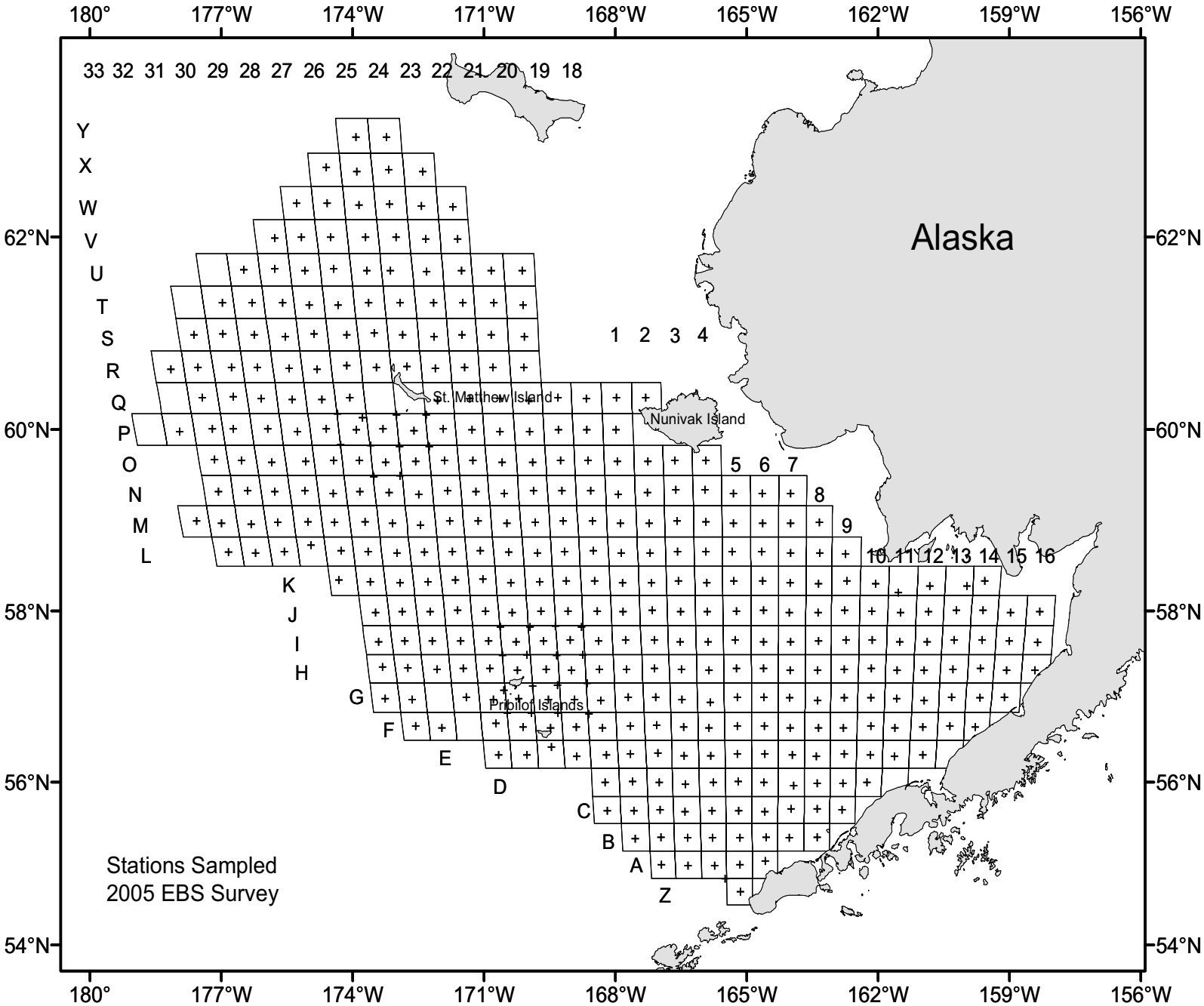

Figure 1. NMFS eastern Bering Sea crab survey area in 2005

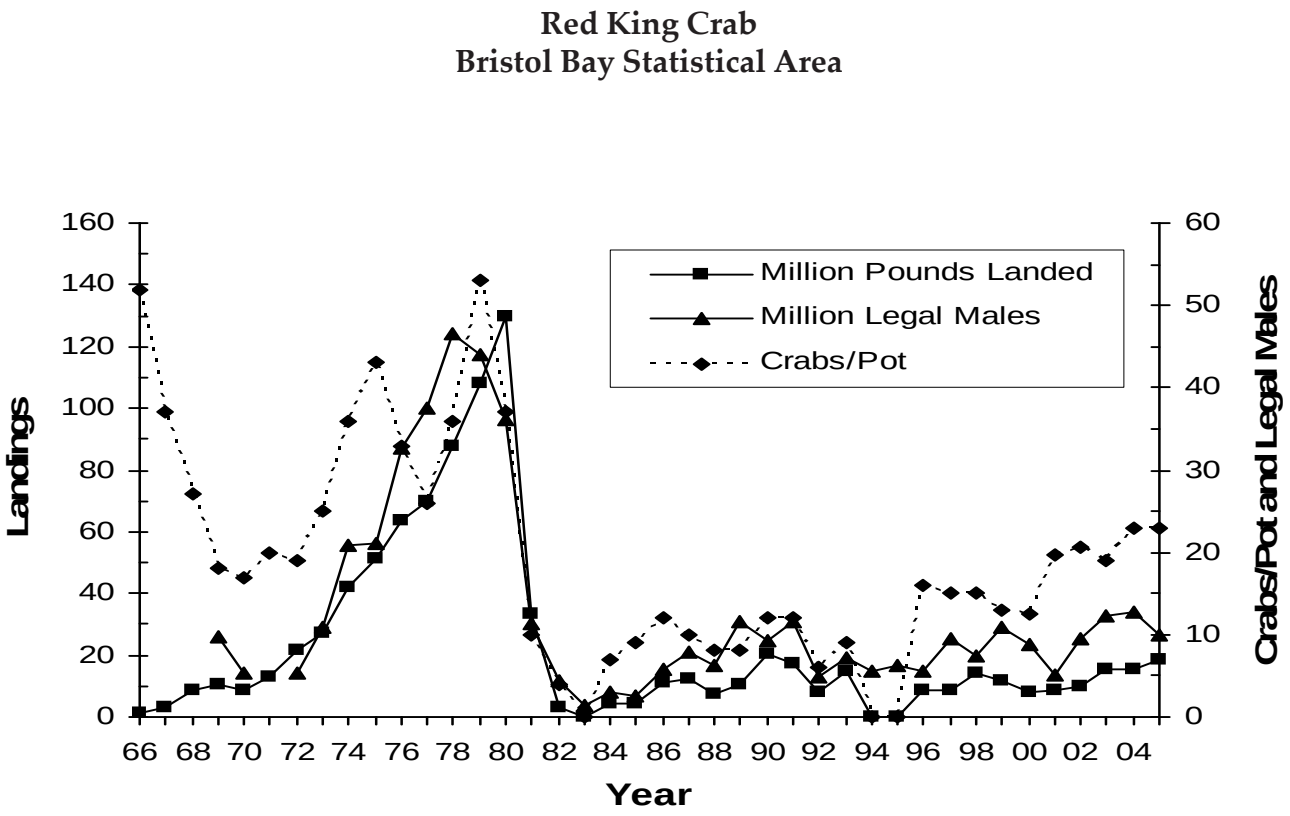

Figure 2. U.S. landings in millions of pounds, CPUE as crabs/pot-lift, and abundance of legal red king crab *(P. camtschaticus)* in millions in Bristol Bay, estimated from NMFS trawl surveys (abundance data include the Pribilof District prior to 1983).

Harvest Levels which are for the combined general and Community Development Quota (CDQ) fisheries. FMP refers to the current (1998) version of the Fishery Management Plan for Bering Sea/Aleutian Islands King and Tanner Crabs. Terminology for shell condition categories is explained in Appendix B. Figures 15 through 17 show stock biomass, yield, and commercial catch histories relative to overfishing definitions for all stocks.

In this report, the 1997-2002 abundance estimates for all species have changed relative to those previously published. The changes are relatively minor, and comprise an approximate 1-5% increase in abundance compared to previous values. These resulted from recent corrections in the files containing the haul statistics for each survey year which did not properly categorize poor performance hauls prior to abundance estimation.

Distribution and Abundance of Crab Stocks

Bristol Bay Red King Crab (*P. camtschaticus*)

Legal-sized (≥ 6.5 in cw or 135 mm cl) male crabs were concentrated in central Bristol Bay (Chart 1 and Table 7). The abundance index of legal male red king crab in the Bristol Bay Registration Area (south of 58° 39'N and east of 168°W) was 10.0 million (Table 1 and Figure 2). This estimate represents a 22% decrease from last year but exceeds the average for the previous 20 years (9.0 million). The index (10.4 million) for pre-recruit crab (110-134 mm cl) increased by 1%. Abundance of small males decreased by 9%. The 65 mm cl cohort of 2004 appears in 2005 at approximately 70 mm cl (Figure 3). The 70 mm cl cohort of 2002, which grew to 90 mm cl in 2003 and to 110 mm cl in 2004 is evident at 120mm cl, although at declining levels of abundance

Table 1. Annual abundance estimates (millions of crabs) for red king crab (*P. camtschaticus*) from NMFS surveys. Bristol Bay and Pribilof Districts are combined except where noted with a (B) or (P).

	Males				Females			
	Small	Pre-recruit	Legal		Small	Large		
Carapace Length(mm)	<110	110-134	≥135		<90	≥90		Grand
Width(in)	<5.2	5.2-6.4	≥6.5	Total	<4.3	≥4.3	Total	Total
1985	13.7	10.1	2.5	26.3	6.9	6.8	13.7	40.0
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
1989	8.6	9.4	11.9	29.9	4.4	16.9	21.2	51.1
1990	8.2	10.2	9.2	27.6	7.2	17.5	24.7	52.2
1991	8.1	6.4	12.0	26.5	4.7	12.6	17.4	43.9
1992	7.0	5.5	5.8	18.3	2.2	13.4	15.6	33.9
1993	5.7	10.2	9.8	25.7	2.5	19.2	21.7	47.4
1994	6.2	6.7	7.5	20.4	3.4	10.1	13.5	33.9
1995	9.7	6.0	8.9	24.6	4.9	10.4	15.3	33.9
1996	17.2	3.5	6.0	26.7	13.7	12.9	26.6	53.3
1997	28.1	9.8	10.6	48.5	1.8	26.5	28.3	76.8
1998(B)	11.1	16.7	7.5	35.3	5.6	35.8	41.4	76.7
1999(B)	8.4	7.4	11.5	27.3	6.4	15.1	21.6	48.9
2000(B)	11.4	7.3	8.9	27.6	5.7	17.4	23.1	50.7
2001(B)	10.2	4.4	5.3	19.9	3.9	21.8	25.7	45.5
2002(B)	20.7	9.9	9.5	40.0	18.9	19.4	38.3	78.3
2003(B)	17.9	9.0	12.3	39.3	10.8	34.0	44.8	84.1
2004(B)	32.3	10.3	12.8	55.4	18.4	31.7	50.1	105.5
2005(B)	29.2	10.4	10.0	49.6	19.6	42.6	62.2	111.8
Limits[1]								
Lower	4.8	6.0	7.6	24.9	0.0	16.5	25.6	50.5
Upper	59.7	14.6	18.1	85.8	39.1	46.9	74.7	160.5
±%	85	42	41	55	112	48	49	52
1998(P)	0.2	0.6	0.4	1.2	0.0	1.0	1.1	2.2
1999(P)	6.5	0.6	1.1	8.2	6.3	3.1	9.4	17.6
2000(P)	0.0	0.4	1.2	1.5	0.0	0.6	0.6	2.2
2001(P)	1.4	2.5	1.8	5.6	0.0	4.0	4.0	9.6
2002(P)	0.0	0.0	1.8	1.8	0.0	0.4	0.4	2.3
2003(P)	0.0	0.1	1.3	1.4	0.0	1.1	1.2	2.6
2004(P)	1.4	0.0	0.8	2.2	1.1	0.6	1.6	3.8
2005(P)	0.0	0.0	0.3	0.3	0.0	1.4	1.4	1.7

[1] Mean ± 2 standard errors for most recent year; Bristol Bay only.

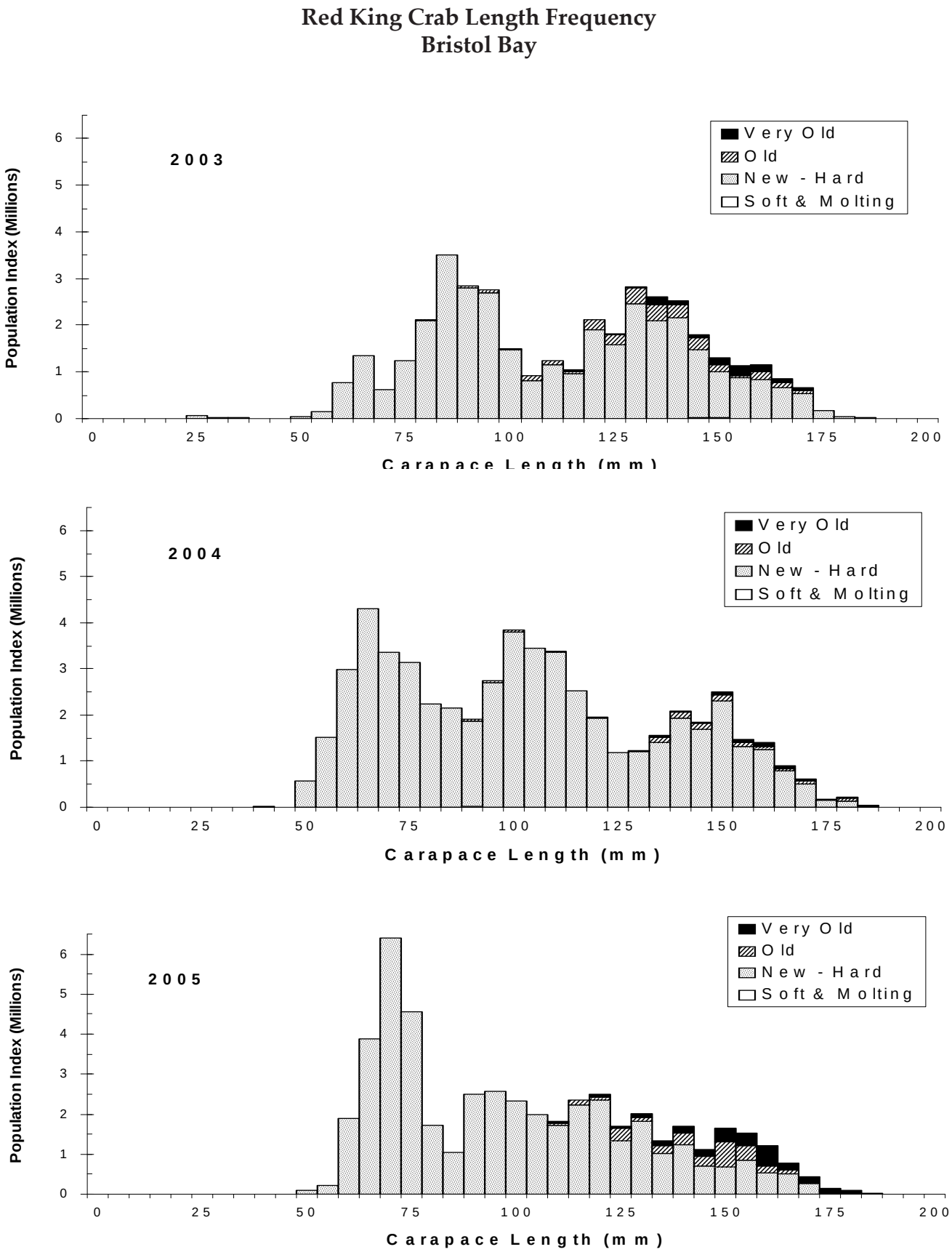

Figure 3. Size-frequency of male red king crab (*P. camtschaticus*) by 5 mm length classes, 2003-2005.

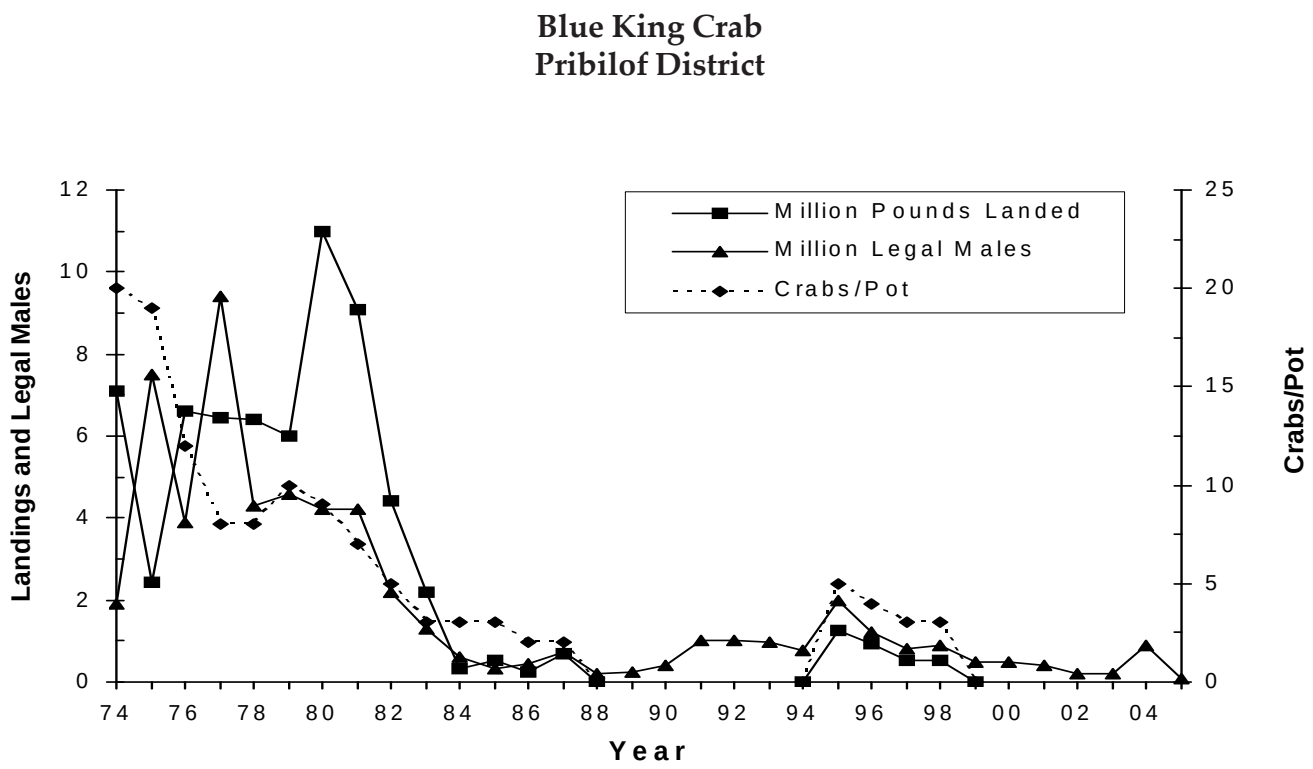

Figure 4. U.S. landings in millions of pounds, CPUE as crabs/pot-lift, and abundance of legal blue king crab *(P. platypus)* in millions in the Pribilof Islands (Pribilof District), estimated from NMFS trawl surveys.

and aging as seen by increasing old and older shell condition classes. The cohort with a modal size of 80 mm cl in 2000 that we've followed to a modal size of 150 mm cl in 2004 (i.e., 100 mm in 2001, 120 mm in 2002, 140 mm in 2003) is disappearing and aging rapidly (Figure 3). No legal male crab were in molting or softshell condition, 88% were newhardshell crabs, and the remainder were oldshell and older crabs. The 2005 abundance index (42.6 million crabs) for large (≥ 90 mm cl) females represents a 35% increase from last year. Among female crabs, 60% were mature, of which 99% had molted and extruded new, uneyed eggs. Fluctuations in the timing of molting, mating, and embryo extrusion may be related to annual variations in water temperature.

ADF&G has developed a length-based assessment (LBA) model, which was fitted to the survey time series data. Resultant estimates of the abundance of mature males and females are used to establish the fishery GHL (ADF&G Regional Information Report 5J99- 09).

The LBA estimate of 42.7 million mature females was slightly larger than the survey estimate for large females (42.6 million) and equated to 67.0 million pounds of effective spawning biomass. Total mature biomass is above the MSST theshold, allowing a 15% harvest rate under the ADF&G harvest strategy. This resulted in a GHL of 18.3 million lbs (8,312 t), including 1.2 million lbs of CDQ. The total GHL translates into approximately 2.70 million crabs at an average weight of 6.8 lbs.

Pribilof Islands Red King Crab
(P. camtschaticus)

In the Pribilof District (south of 58° 39′N and west of 168° W), the abundance index for legal male red king crab was 0.3 million (Table 1), down 67% from last year. The index for large females showed a 150% increase from 2004. From 1996 to 1998, a combined fishery

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

	Pribilof District							
	Males				Females			
	Small	Pre-recruit	Legal		Small	Large		
Carapace Length(mm)	<105	105-119	≥120		<80	≥80		Grand
Width(in)	<4.3	4.3-5.4	≥5.5	Total	<3.8	≥3.8	Total	Total
1985	0.1	0.2	0.3	0.5	0.2	0.5	0.7	1.2
1986	<0.1	<0.1	0.4	0.5	<0.1	1.9	1.9	2.4
1987	0.6	0.1	0.7	1.4	0.4	0.6	1.0	2.4
1988	1.1	0.0	0.2	1.3	0.8	0.4	1.2	2.5
1989	3.2	0.1	0.2	3.5	2.3	1.3	3.6	7.1
1990	1.8	1.2	0.4	3.5	1.8	2.7	4.5	8.0
1991	1.3	1.0	1.0	3.4	0.6	2.8	3.4	6.7
1992	1.6	1.2	1.0	3.8	1.3	2.1	3.4	7.1
1993	1.0	0.8	1.0	2.8	0.3	2.2	2.5	5.3
1994	0.3	0.5	0.8	1.6	0.1	4.3	4.3	5.9
1995	0.8	1.2	2.0	3.9	0.4	4.0	4.5	8.4
1996	0.3	0.7	1.2	2.3	0.1	4.6	4.7	7.0
1997	0.3	0.4	0.8	1.5	0.1	2.5	2.6	4.1
1998	0.8	0.4	0.9	2.1	0.3	2.1	2.3	4.4
1999	0.1	0.2	0.5	0.8	0.0	2.5	2.5	3.3
2000	0.1	0.2	0.5	0.9	0.0	1.4	1.4	2.3
2001	0.0	0.1	0.4	0.6	0.0	1.6	1.6	2.2
2002	0.0	0.0	0.2	0.2	0.0	1.2	1.3	1.5
2003	0.0	0.0	0.2	0.3	0.0	1.1	1.2	1.4
2004	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.3
2005	2.1	0.0	0.1	2.1	2.3	0.3	2.6	4.8
Limits[1]								
Lower	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper	4.3	0.0	2.1	6.6	3.6	1.3	5.0	11.6
±%	192	-	143	183	200	113	177	180

[1] Mean ± 2 standard errors for most recent year.

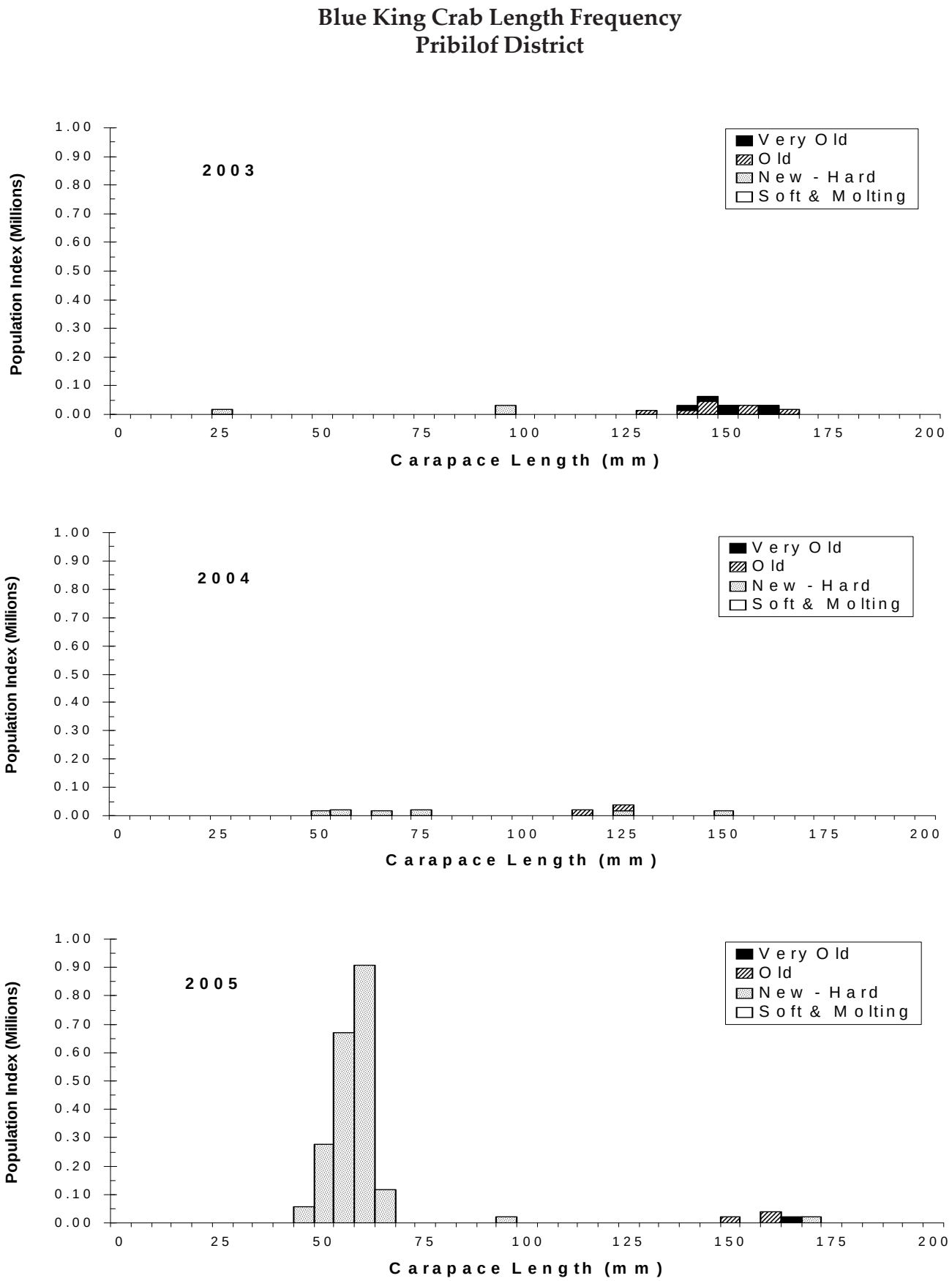

Figure 5. Size-frequency of Pribilof Islands (Pribilof District) male blue king crab (*P. platypus*), by 5 mm length classes, 2003-2005.

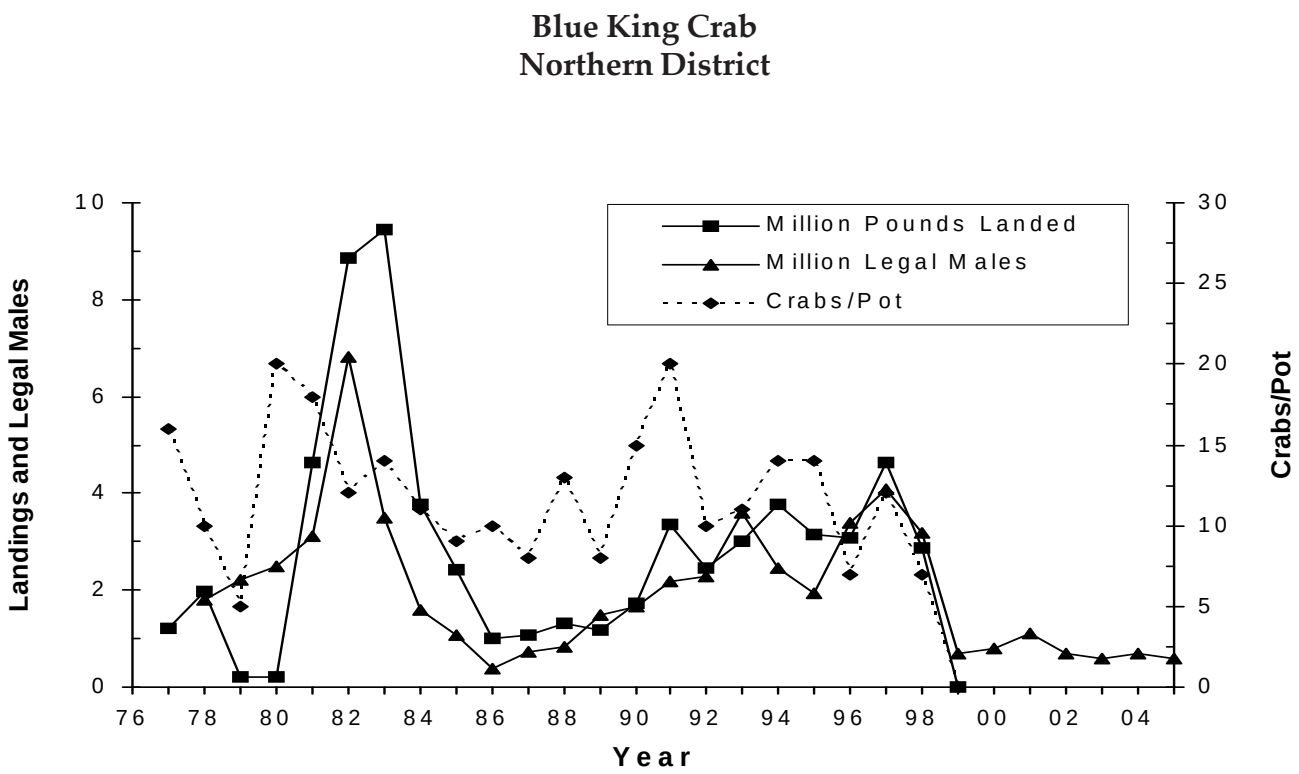

Figure 6. U.S. landings in millions of pounds, CPUE as crabs/pot-lift, and the abundance of legal blue king crabs *(P. platypus)* in millions in the (Northern District) St. Matthew Island, estimated from NMFS trawl surveys.

for red and blue king crabs in the Pribilof District opened on 15 September. However, due to low abundance of blue king crab, the combined fishery has not opened since 1998. Historically, red king crab have not been abundant in the Pribilof Islands and landings were taken incidentally during the blue king crab fishery. Although this stock is not considered overfished under provisions of the MSFCMA, the fishery will remain closed due to the desire to avoid bycatch of blue king crab that mingle in the same grounds, and due to the extremely low precision of the abundance estimates. In the absence of a St. Matthew fishery, effort levels were also feared to be excessive.

Pribilof Islands Blue King Crab (*P. platypus*)

Legal (≥ 6.5 in cw or 135 mm cl) males were found primarily east of St. Paul Island (Chart 2 and Table 8A). The abundance index (0.1 million crabs) for legal males (Table 2 and Figure 4) was well below the average for the previous 20 years (0.6 million). The index of pre-recruits (110-134 mm cl) male crabs was zero. The abundance of small males (< 110 mm cl) was very difficult to determine. Size-frequency data (Figure 5) are very sparse and only five legal males were captured.

The abundance index (0.3 million crabs) for large (≥ 90 mm cl) females showed a 217% increase from last year. However, estimates of female abundance are usually very imprecise due to the preference of these crab for rocky habitat which is not well sampled by trawls. Among sampled mature females, none were softshell, 47% were new hardshells, of which 100% carried new eggs, and 53% were oldshells, of which 100% carried empty embryo cases. Fifteen mature females were caught. Blue king crab are predominantly biennial spawners. Only a portion of the female population spawns in a given year, while the

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

	Northern District							
	Males				Females			
	Small	Pre-recruit	Legal		Small	Large		
Carapace Length(mm)	<105	105-119	≥120		<80	≥80		Grand
Width(in)	<4.3	4.3-5.4	≥5.5	Total	<3.8	≥3.8	Total	Total
1985	0.5	0.4	1.1	1.9	0.1	0.1	0.2	2.1
1986	0.6	0.4	0.4	1.4	0.3	0.1	0.3	1.7
1987	1.1	0.7	0.7	2.5	0.5	0.2	0.7	3.2
1988	1.4	0.7	0.8	2.9	0.9	0.8	1.7	4.6
1989	4.8	1.0	1.5	7.3	1.6	1.7	3.3	10.5
1990	1.4	0.8	1.7	3.9	0.4	0.2	0.6	4.5
1991	2.9	1.5	2.2	6.6	0.8	0.7	1.5	8.1
1992	2.3	1.5	2.3	6.0	0.9	0.4	1.3	7.4
1993	4.6	2.0	3.6	10.2	1.4	3.0	4.4	14.6
1994	1.5	1.4	2.5	5.4	0.1	0.4	0.5	5.9
1995	1.9	1.1	1.9	4.9	0.6	0.1[1]	0.7	5.6
1996	2.6	2.0	3.4	8.0	1.1	0.9	2.0	10.0
1997	2.5	2.3	4.1	8.8	0.6	0.9	1.5	10.3
1998	2.4	1.8	3.2	7.4	0.6	0.5	1.2	8.6
1999	0.6	0.2	0.7	1.5	0.3	0.0[1]	0.3	1.8
2000	0.6	0.3	0.8	1.7	0.1	0.1	0.2	1.9
2001	0.8	0.6	1.1	2.5	0.3	0.2	0.5	2.9
2002	0.2	0.2	0.7	1.1	0.0	0.1[1]	0.1	1.2
2003	1.4	0.3	0.6	2.3	0.3	0.8	1.0	3.3
2004	1.0	0.2	0.7	1.9	0.5	0.2	0.7	2.6
2005	0.9	0.3	0.6	1.8	0.2	0.2	0.4	2.2
Limits[2]								
Lower	0.1	0.0	0.2	0.3	0.0	0.0	0.0	0.3
Upper	2.0	0.4	1.1	3.5	1.2	0.4	1.4	4.9
±%	94	103	73	83	144	109	104	89

[1] These estimates have low precision since few crabs were caught.

[2] Mean ± 2 standard errors for most recent year.

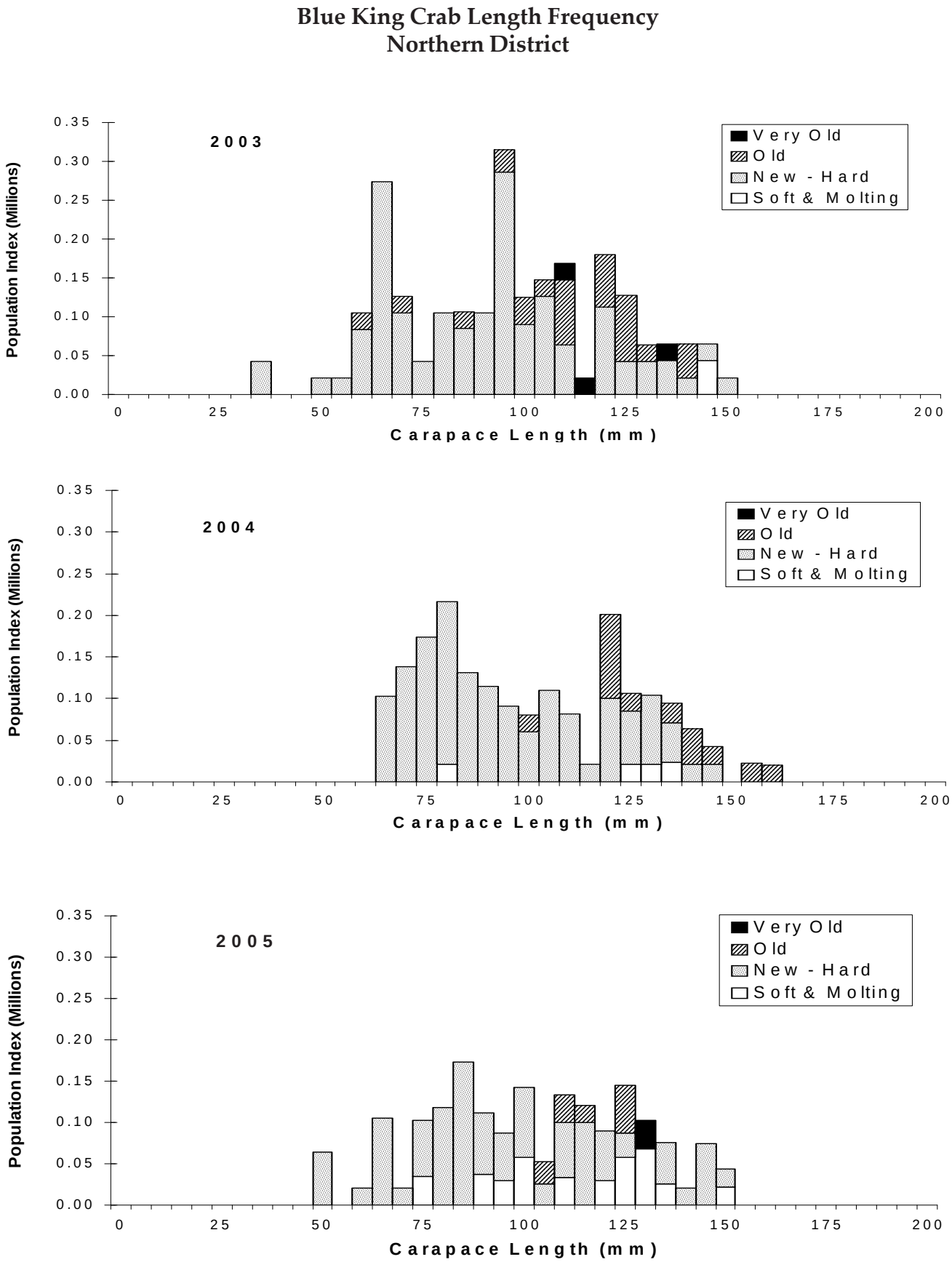

Figure 7. Size-frequency of St. Matthew Island (Northern District) male blue king crab (*P. platypus*), by 5 mm length classes, 2003-2005.

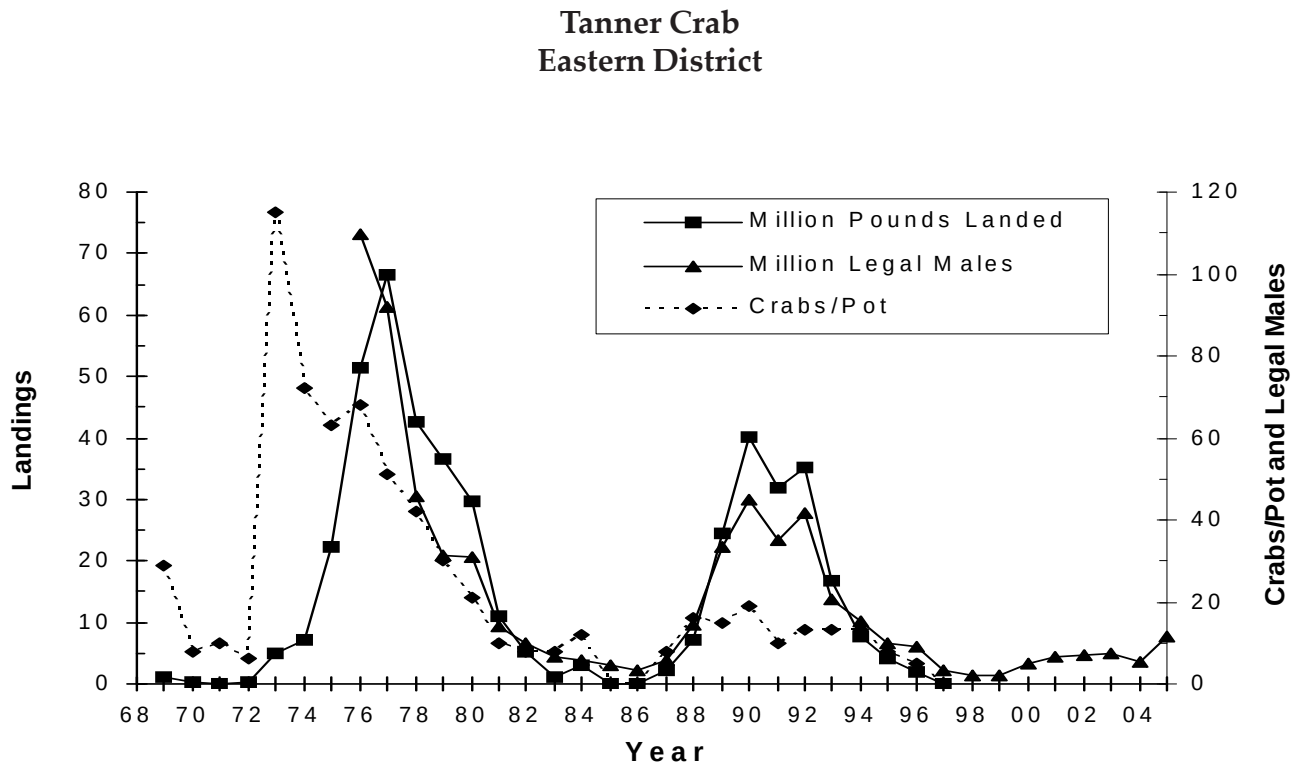

Figure 8. U.S. landings in millions of pounds, CPUE as crabs/pot-lift, and the abundance of legal male Tanner crab *(C. bairdi)* in millions in the Bristol Bay and Pribilof Districts (prior to 1989) or the Eastern District (since 1989), estimated from NMFS trawl surveys.

remainder is in a non-embryo-bearing phase. This fishery was closed from 1988 through 1994 due to low stock abundance, then re-opened from 1995-1998. It has remained closed since 1999. The population is at an extremely low historical abundance (Figure 4), and trends are not easily detectable. Total mature biomass is below MSST and the stock has fallen into the overfished category. The fishery remained closed in 2005 because of low stock abundance since both ADF&G catch-survey analysis and the NMFS survey estimates of mature male abundance are well below the 0.77 million crab level established as a threshold in the ADF&G harvest strategy.

St. Matthew Island Blue King Crab (*P. platypus*)

Legal (≥ 5.5 in cw or 120 mm cl) males were captured primarily southwest of St. Matthew Island (Chart 2 and Table 8B). The abundance index for legal males was 0.6 million crabs (Table 3 and Figure 6), decreasing 16% from last year. The abundance index (0.3 million crabs) of pre-recruit crabs (105-119 mm cl) increased 44% from last year. Legal and pre-recruit male abundance indices are still well below their averages for the previous 20 years (1.7 and 1.0 million, respectively). Size-frequency is shown in Figure 7. Only nine legal males were captured. The index for large females (≥ 80 mm cl) is poorly determined due to a habitat preference for inshore, rocky and untrawlable grounds. Only five large females were captured. Due to low stock abundance, the fishery has not opened since the 1998 opening. This stock is considered overfished under the provisions of the MSFCMA and rebuilding plan.

Tanner Crab (*C. bairdi*)

The legal minimum size of 5.5 in cw (spine tip to spine tip) is equivalent to 138 mm cw measured between the spines (scientific measure). Legal males were sparsely distributed with regions of highest abundance

Table 4. Annual abundance estimates (millions of crabs) for Tanner crabs (*C. bairdi*) from NMFS surveys. Data since 1988 are for Eastern District; all prior data for Bristol Bay and the Pribilof Districts; both areas contain virtually all legal males.

	Males				Females			
	Small	Pre-recruit	Legal		Small	Large		
Carapace Width(mm)	<110	110-137[1]	≥138[1]		<85	≥85		Grand
Width(in)	<4.3	4.3-5.4	≥5.5	Total	<3.4	≥3.4	Total	Total
1985	29.8	11.4	3.9	45.0	24.2	15.6	39.8	84.8
1986	109.0	14.7	2.6	126.4	68.2	13.7	81.9	208.3
1987	229.9	22.0	5.9	257.8	192.4	35.5	227.8	485.6
1988	287.3	62.8	14.3	364.4	184.8	81.0	265.8	630.2
1989	403.0	110.9	33.6	547.5	338.6	63.8	402.4	949.9
1990	286.1	87.4	45.1	418.6	266.5	97.4	363.9	782.5
1991	267.2	115.8	35.1	418.1	232.1	116.8	348.9	767.0
1992	121.0	112.7	41.8	275.5	98.9	63.9	162.8	438.3
1993	76.6	70.5	20.6	167.7	57.6	29.6	87.2	254.9
1994	47.9	43.2	15.4	106.6	57.9	27.5	85.4	192.0
1995	40.4	35.7	10.0	86.1	66.6	37.2	103.8	189.9
1996	52.6	26.7	9.2	88.5	59.3	27.7	87.1	175.6
1997	66.5	10.0	3.4	80.0	71.1	10.1	81.2	161.2
1998	75.3	12.3	2.2	89.7	62.4	6.6	69.0	158.7
1999	202.4	15.1	2.1	219.5	128.7	17.2	145.9	365.4
2000	104.1	18.2	5.0	127.3	80.6	13.7	94.3	221.6
2001	290.1	17.7	6.5	314.3	284.0	13.5	297.5	611.7
2002	204.6	15.2	7.0	226.8	200.4	10.5	210.9	437.6
2003	217.5	24.7	7.4	249.6	184.1	15.1	199.2	448.8
2004	208.0	31.7	5.4	245.0	172.1	10.9	183.0	428.0
2005	325.9	52.0	11.4	389.3	338.5	29.0	367.6	756.9
Limits[2]								
Lower	153.9	22.5	2.8	186.2	113.6	6.9	124.4	310.6
Upper	262.1	40.8	7.9	303.8	230.6	14.9	241.5	545.4
±%	26	29	47	24	34	37	32	27

[1] Values prior to 1987 are interpolated from 5 mm width classes.

[2] Mean ± 2 standard errors for most recent year.

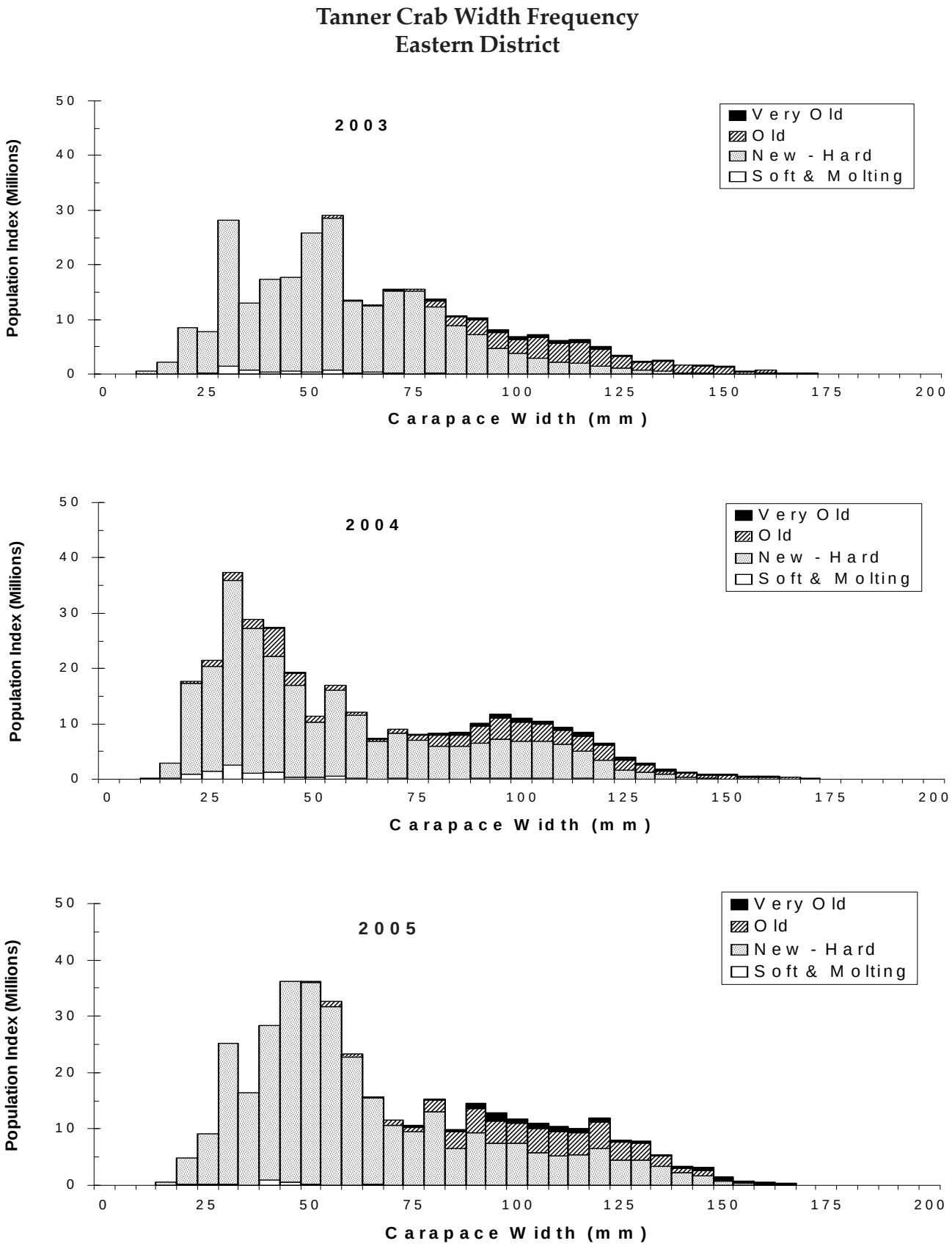

Figure 9. Size-frequency of male Tanner crab (*C. bairdi*) in the Eastern District, by 5 mm width classes, 2003-2005.

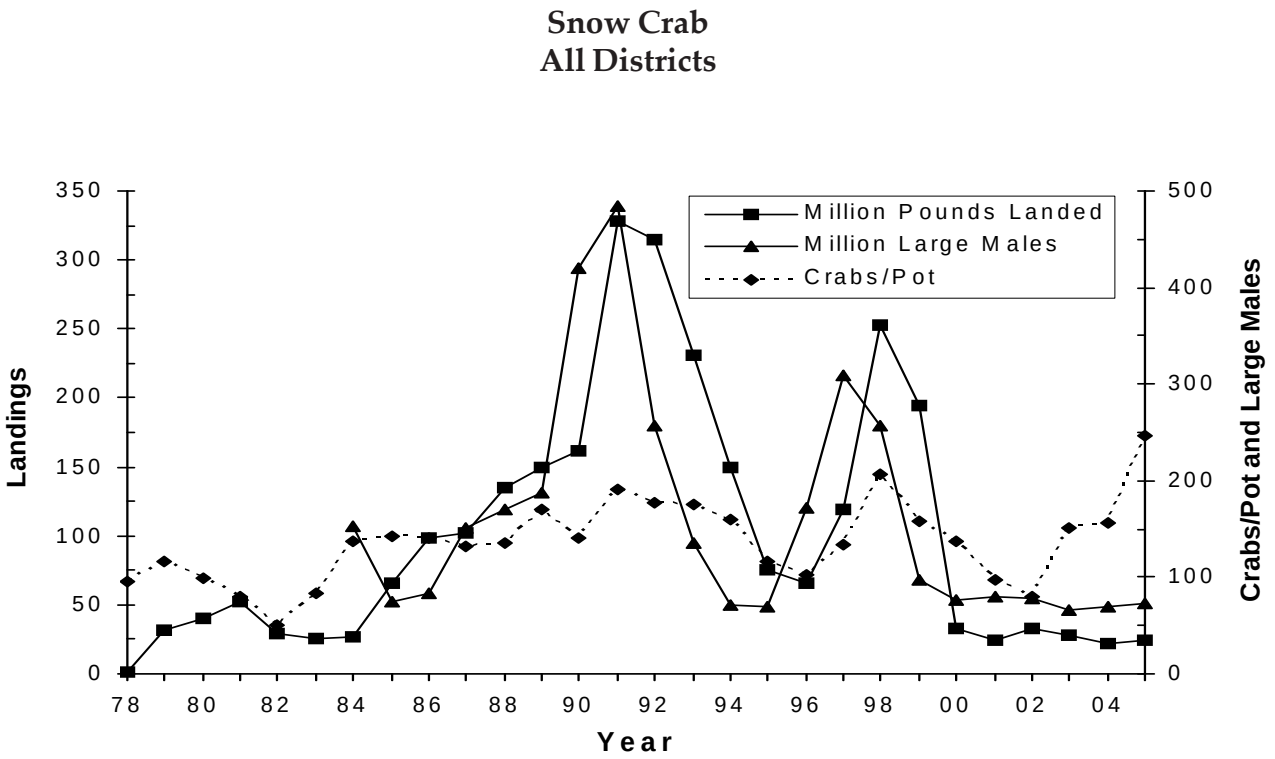

Figure 10. U.S. landings in million of pounds, CPUE as crabs/pot-lift, and the abundance of large male snow crab *(C. opilio)* in millions (all districts combined), estimated from NMFS trawl surveys.

in southwest Bristol Bay (Chart 3 and Table 9). In 2005, the ADF&G stratified the management of the Bering Sea Tanner crab stock into two subareas, east and west of 166° West longitude. The abundance index for legal male *C. bairdi* for both Eastern and Western Districts combined was 11.4 million crabs (Table 4 and Figure 8), a 112% increase over last year. This abundance was virtually evenly distributed between Eastern and Western Districts (50.4% and 49.6%, respectively). The abundance index (52.0 million crabs) for prerecruit male crabs(110-137 mm cw) showed a 64% increase, and the index of 325.9 million for small males (<110 mm cw) showed a 57% increase for all areas combined. The 2004 male size-frequency reveals a prominent mode in the 30 mm cw range, which persists through 2005 in the 45-50 mm cw modal range (Figure 9). Among legal males, 51% were newhardshells, and 49% were oldshell and older. Oldshell crab will not molt again during their lifespan. The combined Eastern and Western Districts abundance index (29.0 million crabs) of large (≥85 mm cw) females showed a 166% increase over 2004. Among sampled mature females, 6% were softshells; 34% were newhardshells, of which 97% carried new eggs; and 60% were oldshell and older, of which 31% carried new eggs. The vast majority of mature females sampled had completed hatching by the time of the survey.

The reproductive population estimate of mature female biomass was below the MSST management threshold of 21.0 million pounds from 1997-2002, just barely above threshold in 2003, below it in 2004, but it rose well above MSST in 2005. The Tanner crab stock is currently considered overfished and under the rebuilding plan for the Bering Sea *C. bairdi* stock that has been approved by the Alaska Board of Fisheries and the North Pacific Fishery Management Council. Both threshold status and minimum total allowable catch (TAC) criteria were not met for the Eastern District. Since there's no minimum TAC

Table 5. Annual abundance estimates (millions of crabs) for eastern Bering Sea snow crabs (*C. opilio*) from NMFS surveys (all districts combined).[1]

	Males				Females			
	Small	Pre-recruit	Large		Small	Large		
Carapace Width(mm)	<78	78-101	≥102		<50	≥50		Grand
Width(in)	<3.1	3.1-3.9	≥4.0	Total	<2.0	≥2.0	Total	Total
1985	420.2	127.6	74.9	622.6	258.2	123.5	381.7	1004.3
1986	1039.8	139.2	83.1	1262.0	790.6	422.0	1212.6	2474.6
1987	4070.5	405.2	144.4	4620.0	2903.0	2795.0	5698.0	10318.0
1988	2996.3	470.9	171.0	3638.2	1235.3	2322.7	3558.0	7196.2
1989	2823.7	822.4	187.1	3833.1	1922.8	3790.7	5713.5	9546.6
1990	1834.5	1025.9	420.3	3280.7	1463.3	2798.1	4261.4	7542.1
1991	3277.4	693.8	484.1	4455.3	3289.0	3575.0	6863.9	11319.2
1992	2827.0	331.4	256.4	3414.8	2433.9	1914.3	4348.2	7763.0
1993	5345.9	250.7	135.0	5731.5	3989.8	1982.6	5972.4	11703.9
1994	4027.6	254.9	71.6	4354.0	3417.6	1674.3	5091.8	9445.8
1995	3607.7	479.0	68.8	4155.5	2090.3	2409.4	4499.7	8655.2
1996	1815.2	884.9	171.6	2871.7	1189.0	1364.2	2553.2	5424.9
1997	800.5	722.4	309.0	1831.9	955.6	1428.3	2383.9	4215.8
1998	666.3	359.7	257.3	1283.3	813.5	1174.4	1988.0	3271.3
1999	396.8	127.4	96.6	620.8	320.7	484.3	805.0	1425.7
2000	916.5	133.3	77.0	1126.9	657.1	1511.7	2168.8	3295.7
2001	1550.2	287.7	79.3	1917.2	480.9	1564.6	2045.5	3962.7
2002	496.1	253.1	77.5	826.7	180.5	510.5	691.0	1517.7
2003	1145.2	166.5	65.2	1376.9	640.0	614.0	1253.9	2630.8
2004	1648.4	106.2	68.9	1823.5	1869.2	806.4	2675.5	4499.0
2005	1911.2	284.1	72.1	2267.4	1381.5	1630.8	3012.3	5279.7
East(%)[2]	30.4	57.3	41.7	34.1	33.0	38.1	35.8	35.1
Limits[3]								
Lower	1055.0	73.3	54.5	1258.2	990.7	532.2	1765.9	3024.1
Upper	2241.8	139.1	83.4	2388.8	2747.7	1080.5	3585.2	5974.0
±%	36	31	21	31	47	34	34	33
Northern stations								
2001	432.4	3.1	0.0	435.5	165.5	64.2	229.8	665.3
2004	2922.4	9.1	0.0	2931.5	896.2	152.5	1048.8	3980.3
2005	1771.7	12.4	0.2	1784.2	760.5	268.1	1028.6	2812.8

[1] Values for 1981-1983, and small and pre-recruit males for 1984, are interpolated from 5 mm width classes.

[2] Percent of size group in Eastern District (east of 173°).

[3] Mean ± 2 standard errors for most recent year.

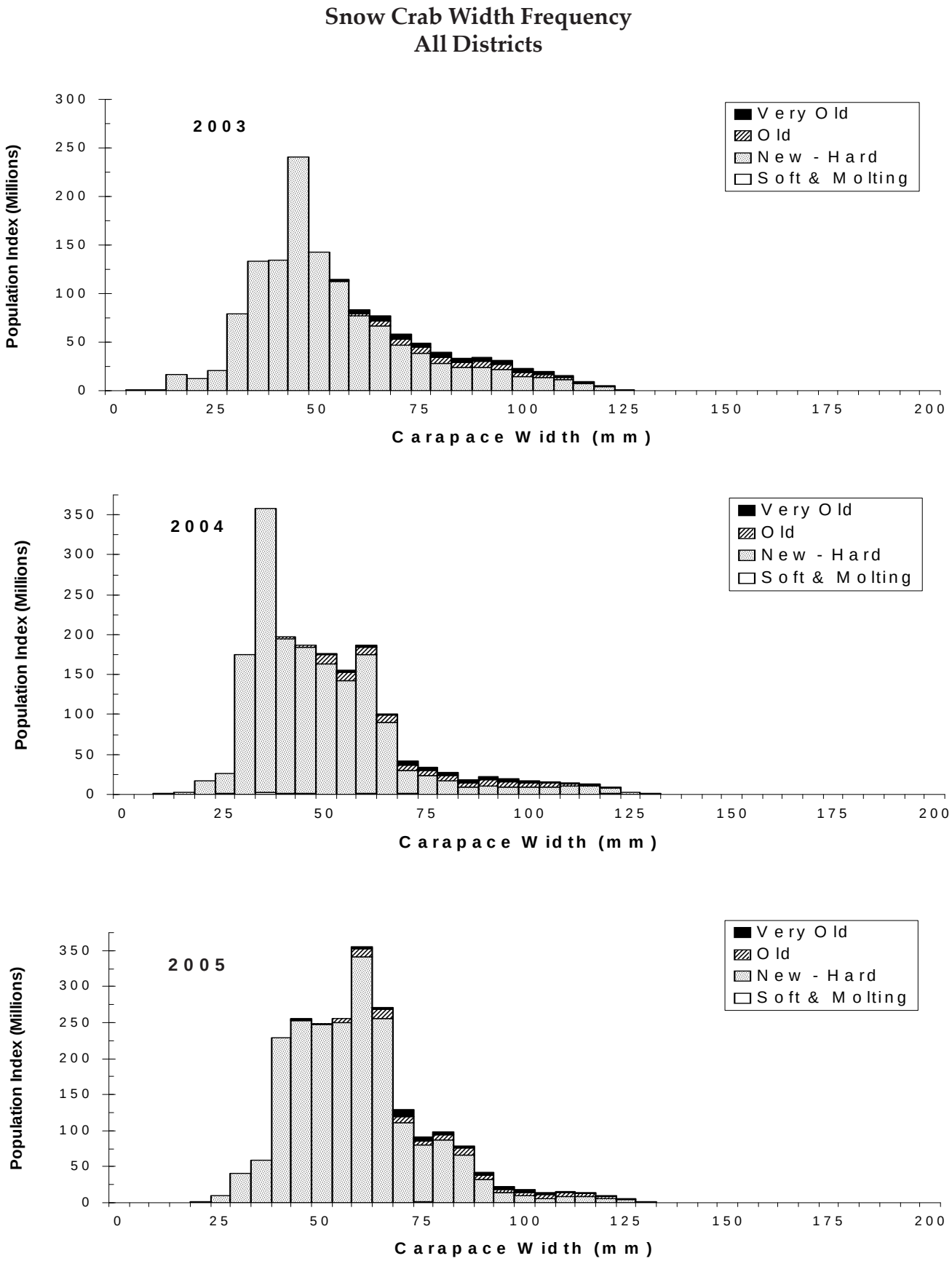

Figure 11. Size-frequency of male snow crab (*C. opilio*), all districts combined, by 5 mm width classes, 2003-2005.

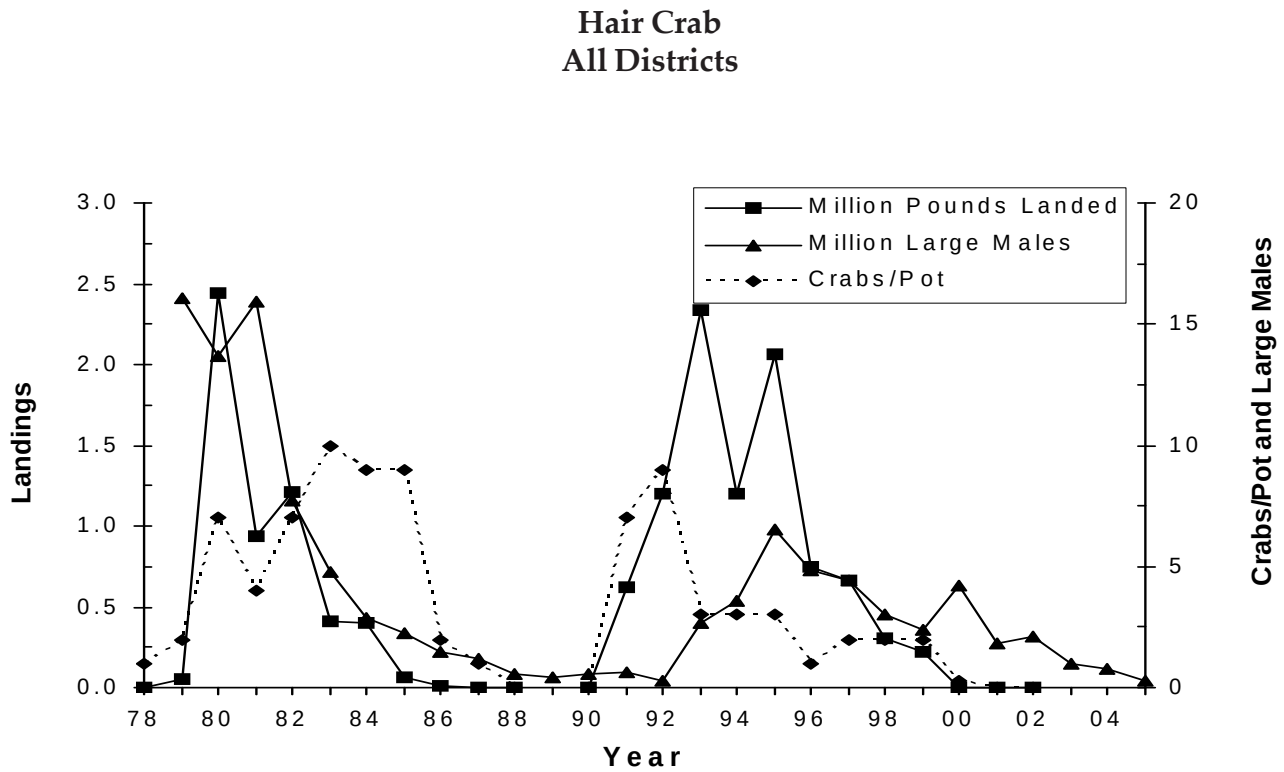

Figure 12. U.S. landings in millions of pounds, CPUE as crabs/pot-lift, and the abundance of large male hair crab *(E. isenbeckii)* in millions (all districts combined), estimated from NMFS trawl surveys.

threshold in the Bering Sea District west of 166° West longitude, a small fishery (1.62 million pounds, 735 t) occured in the Western District in 2005. This translates to approximately 0.775 million crabs at an average weight of 2.1 lbs.

Snow Crab (*C. opilio*)

Although the legal minimum size limit for *C. opilio* is 3.1 in cw (78 mm cw), processors currently prefer a minimum size of 4.0 in cw (102 mm). The size ranges for male snow crab used in this report are defined as follows: small, < 3.1 in cw (78 mm); pre-recruits, 3.1-3.9 in cw (78-101 mm); and large ≥ 4.0 in cw (102 mm).

Large (≥ 102 mm cw) males were discontinuously distributed east of the Pribilof Islands (Chart 4 and Table 10). The abundance index for large (≥ 102 mm cw) males (Eastern and Western Districts combined) at 72.1 million crabs (Table 5 and Figure 10), which represents a 5% increase from last year, is less than one-half of the 20-year average (164.8 million). Approximately 53% of these crab were in the Eastern District as compared to 46% in 2003, and 60% in 2004. Pre-recruit male crabs (78-101 mm cw) showed a 168% increase in abundance. The abundance index (1,630.8 million) for large females (≥ 50 mm cw) showed a 102% increase. It can be difficult to track size-frequency modes of small and pre-recruit crabs from one year to the next (Figure 11). Among large male crabs, 1% were in molting or softshell condition, 52% were new-hardshells indicating a recent molt, and 47% were oldshell and older. Among sampled mature females, 53% were new-hardshells, of which 94% carried new eggs, and 47% were oldshells and older, of which 87% carried new eggs. The remainder had not produced a new clutch.

Results from the NMFS length-based stock assessment model of eastern Bering Sea snow crab (Turnock and Rugolo 2005) reveal that, over the last 28 years (1978-2005), recruitment of male and female crab 25 mm to 50 mm cw fell to a dramatic and historical low

Table 6. Annual abundance estimates (millions of crabs) for hair crab (*E. isenbeckii*) from NMFS surveys.

	Males			Females	
	Small	Large			
Carapace Length(mm)	<83	≥83			Grand
Width (in)	<3.25	≥3.25	Total	Total	Total
1985	0.3	2.6	2.9	0.3	3.1
1986	0.7	1.8	2.5	0.4	2.9
1987	1.6	1.3	2.9	0.9	3.8
1988	3.0	0.9	3.9	0.9	4.7
1989	11.4	1.5	12.8	0.7	13.5
1990	13.0	1.1	14.1	0.9	15.0
1991	4.5	1.3	5.7	1.2	6.9
1992	2.5	1.2	3.6	0.5	4.2
1993	9.1	2.6	11.8	1.5	13.3
1994	4.7	3.6	8.2	1.3	9.5
1995	4.6	6.5	11.1	0.7	11.8
1996	3.6	4.9	8.4	1.1	9.5
1997	1.6	4.4	6.0	0.3	6.3
1998	0.5	3.0	3.5	1.4	4.9
1999	1.5	2.4	3.9	2.0	5.8
2000	0.5	4.2	4.7	1.3	6.0
2001	0.5	1.8	2.3	2.2	4.5
2002	0.4	2.1	2.5	0.6	3.1
2003	1.3	1.0	2.3	0.5	2.8
2004	0.7	0.8	1.5	0.4	1.8
2005	1.1	0.3	1.3	0.9	2.2
Limits[1]					
Lower	0.2	0.3	0.6	0.1	0.8
Upper	1.2	1.3	2.4	0.6	2.9
±%	70	66	58	60	58.6

[1] Mean ± 2 standard errors for most recent year.

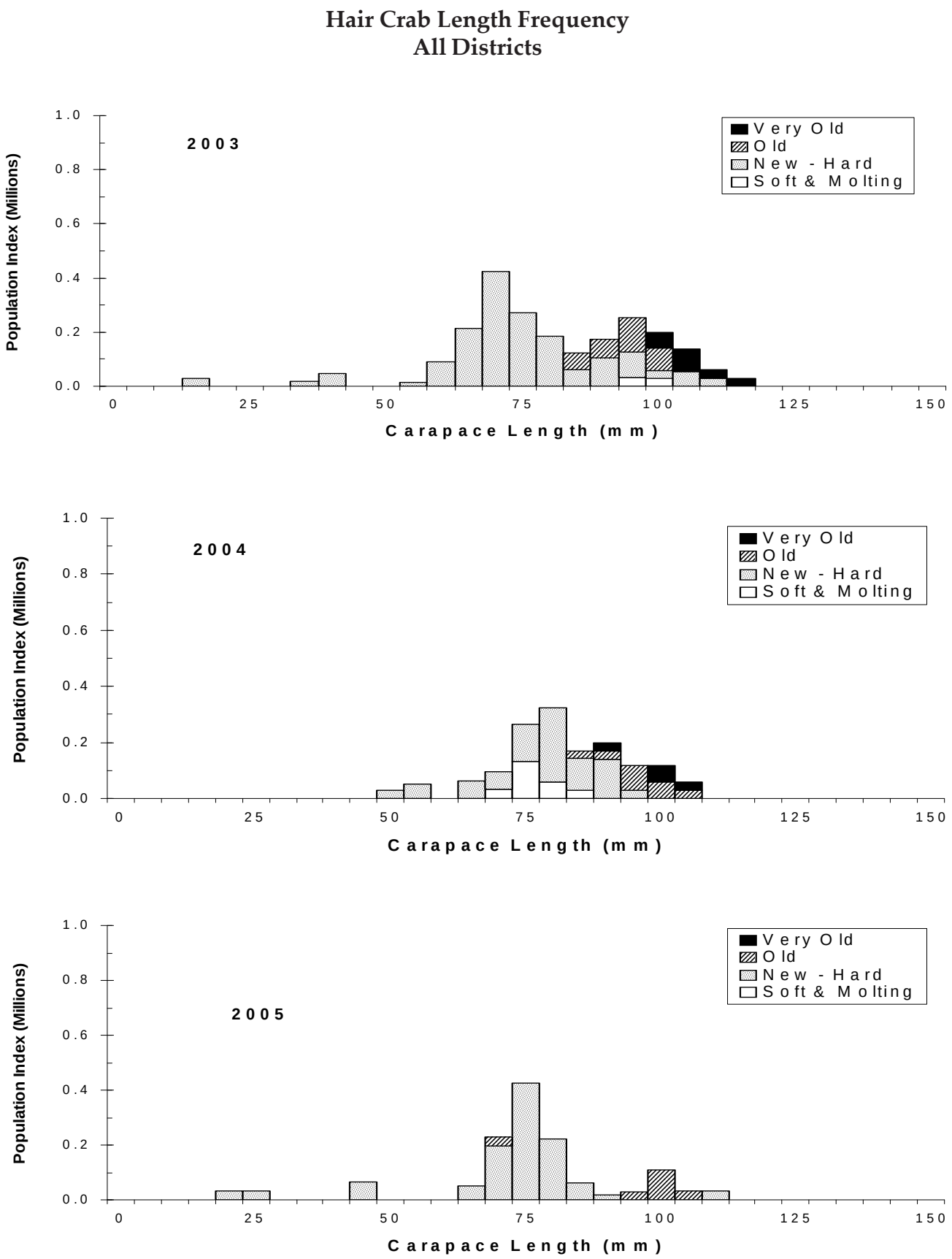

Figure 13. Size-frequency of male hair crab (*E. isenbeckii*), by 5 mm length classes, 2003-2005.

in 1994 and has since remained depressed. The future outlook of this stock is poor in light of this decade-long pattern of unprecedented low recruitment of new individuals to the stock.

The 2005 spawning stock biomass (610.7 million lbs) increased 78% from 2004, and is above the minimum stock size threshold of 460.8 million lbs as defined in the FMP. A fishery will be allowed under the current rebuilding plan for the Bering Sea *C. opilio* stock. The GHL for the 2005 fishery has been set at 37.18 million lbs (16,863 t) of large crabs (≥ 4.0 in cw) of which 3.72 million lbs are for CDQ fisheries. The fishery opened on 15 October, 2005. In 2004-2005 fishery, the GHL was 20.9 million lbs, landings were 24.89 million lbs and average CPUE for the general and CDQ fisheries was 247 crab/pot-lift.

Hair Crab *(Erimacrus isenbeckii)*

Historically, hair crab have been concentrated just north of the Alaska Peninsula and near the Pribilof Islands. In recent years, however, abundance of hair crab north of 58° N lat. has been increasing (Chart 5 and Table 11). Female and small male crabs are infrequently encountered in this survey, therefore, these data provide little understanding of their distribution.

The abundance index for large (≥ 3.25 in cw or ≥ 83 mm cw) male hair crab (Table 6 and Figure 12) is 0.3 million, a 65% decrease from last year and less than half of the 20-year average of 2.3 million. Size-frequencies (Figure 13) indicate little recruitment to the stock. The abundance index of total females is usually unreliable. Eighty-three percent of males and 62% of females were new-hardshell crabs.

Changes in abundance indexes of hair crab are difficult to interpret due to patchy distribution, burying habits, in-shore distribution, and suspected variability in catchability between years. Further, changes in fishery practices and management over the time series decreases the usefulness of correlations between fishery and survey data (Figure 12).

The directed fishery for hair crab in the Pribilof Islands has no statutory minimum legal size regulation, so we have defined large crabs as those larger than a minimum size of 3.25 in (83 mm cw) that has been specified as a condition of permits during recent years. There are also no regulatory districts defined, but management is based on districts defined for red king crab (e.g., Bristol Bay, Pribilofs, and Northern districts). In 2005, there are an estimated 0.12 million lbs of large male (≥ 83 mm cw) crabs in the Northern District. No fishery has occurred since 2000, and the fishery did not open in the 2005 season.

2005 Snow Crab (*C. opilio*) - Northern Area

In 2005, we extended survey transects north of St. Matthew Island for a total of 29 additional stations (Figure 1). This extension was intended to better define the northern distributional boundary of the mature snow crab stock, and particularly the distribution of mature females. The distribution of juvenile snow crab in this area was also of interest in terms of insight into subsequent patterns of recruitment to the adult stock. Since these stations have not been part of the survey data time series from which guideline harvest levels or overfishing definitions are derived, they are not included for the purpose of making survey estimates.

The previous most recent years we surveyed this northern area were 2004 and 2001. In 2001, we sampled a common set of 25 stations surveyed intermittently over the historical record. In 2004 and 2005, an additional four stations (V22, W22, Y24 and Y25) were sampled (Figure 1). In comparing 2004 and 2005 abundance estimates in this area to 2001, the estimates are expected to be 16% larger on average based on a corresponding increase in area swept if the density of crab in the additional 4 stations approximate that in the remaining 25 stations. Sampling this northern

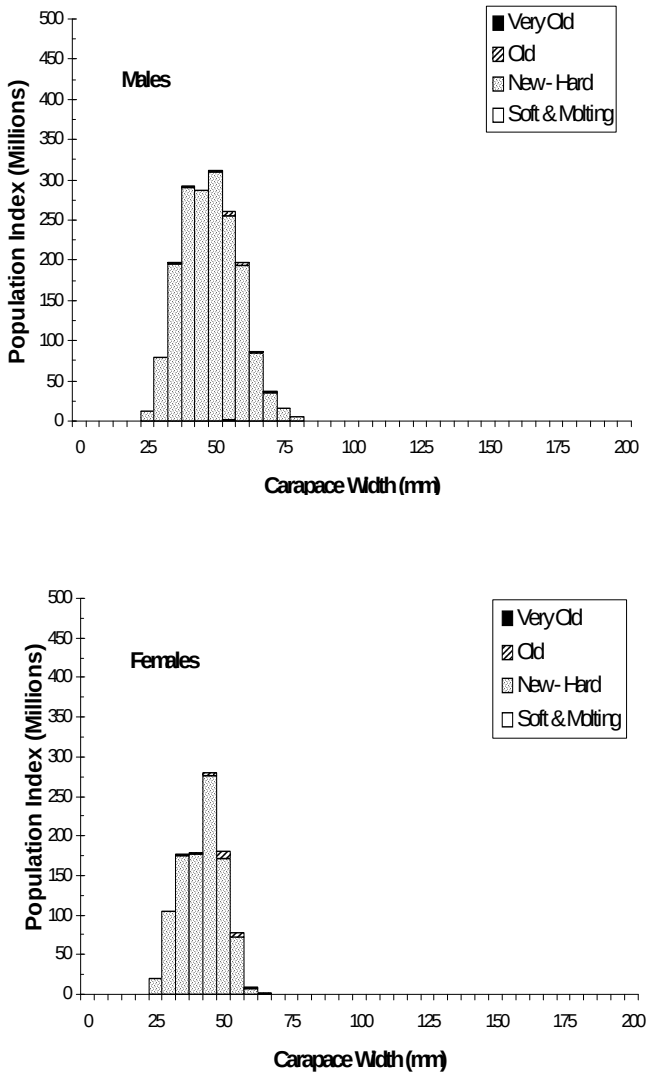

Figure 14. Size-frequency of male and female snow crabs (*C. opilio*) taken in the northern area in 2005, by 5 mm width classes.

area in 2005 was done by the FV *Arcturus* and FV *Aldebaran* chartered for the Bering Sea survey. In 2004, 19 of the 29 northern area stations were sampled by the FV *Sea Wolf* under a memorandum of understanding between NMFS and the Bering Sea Fisheries Research Foundation, while the FV *Arcturus* sampled the remaining 10 stations. While the FV *Sea Wolf* followed standard survey sampling protocols and used standard gear, no direct fishing power comparisons were made between this vessel and the FV *Arcturus*. The two vessels did not sample the same stations in this area and, therefore, relative fishing power between vessels cannot be assessed or inferred. Area swept abundance estimates of snow crab in this area for 2004 are for both vessels combined. We caution against too strict an interpretation of trends in, or comparison of, 2004 results relative to 2001 or 2005 absent a more complete understanding of the fishing power differences between the FV *Sea Wolf* and the FVs *Arcturus* and *Aldebaran*.

In the northern area, the abundance index of small (<78 mm cw) male snow crab was 1,771.7 million (99.3% of total), while pre-recruit male crab (78-101 mm cw) were estimated at 12.4 million (0.7% of total). Only 0.16 million large (≥ 102 mm cw) males were taken. Male crab comprised 63.4%, and female crab 36.6% of all snow crab sampled in the northern area. The vast majority (98.9%) of male crabs were new-hardshell indicating a recent molt, 0.2% were in molting or softshell condition, and 1.0% were oldshell. The abundance index of small (<50 mm cw) female crab was 760.5 million (73.9% of total), compared to 268.1million (26.1% of total) for large (≥ 50 mm cw) females. Among all female crab, 97.9% were new-hardshell, and 26.7% were mature. The abundance indices of the different sex and size groups in 2001, 2004 and 2005 relative to those in the standard survey area, are shown in Table 5.

In general, both males and females were considerably smaller in the northern area (Figure 14) than their counterparts to the south in the standard area (Figure 11). The modal length of the smaller size modes were similar in both northern and southern areas, ranging between 45-50 mm cw for both sexes. The absence of larger size modes in the north is consistent with the idea that snow crab move south and west as they grow and mature. Mature female crab are a component of the stock in both areas, however they represented a larger fraction of total females

in the standard area (36.6%) than in the north (26.7%). In eastern Canada, mature female snow crab from cold waters produce an egg clutch every other year (Sainte-Marie 1993). Rugolo et al. (2005) revealed that eastern Bering Sea female snow crab exhibit both annual and biennial reproductive cycles and that the expression of biennial reproduction is coincident with females inhabiting waters at temperatures of 1.5° C and colder. The waters of this northern area are persistently cold, at or below this threshold. Therefore, over their reproductive lifespan, females inhabiting this northern realm contribute one-half the egg production relative to annual spawning females inhabiting warmer eastern Bering Sea waters.

Acknowledgments

Successful completion of the annual EBS crab and groundfish survey is crucially dependent on the skippers and crews of the participating vessels. We wish to extend a special thanks to Rich Horak and Glenn Sullivan of the F/V *Arcturus* and Norman Bakken and Jeff Boddington of the F/V *Aldebaran* and their crews.

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Citations

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APPENDIX A

Methods of Estimating Crab Population Size

Population abundance indices are determined by the 'area-swept' method, using a stratified systematic sampling design. Distance traveled by the trawl was determined from positions recorded at the beginning and ending of each tow. Area fished (area swept by the trawl) was calculated by multiplying the distance traveled by the effective width of the trawl. Wingspread on this trawl ranges from 47-58 ft. For consistency with previous reports an effective width of 50 ft (15.2 m) was assumed.

All stations (grid squares) within a district or management area were used for estimating the abundance of each species. Stations where multiple (corner or repeat) tows were made were grouped into strata; these include a block of 12 stations southwest of St. Matthew Island and 16 stations around St. Paul Island.

The catch-per-unit-effort (CPUE) was calculated for each station as number of crabs per square nautical mile. Average CPUE was calculated within each multiple tow block and each management district. Abundance indices were calculated by extrapolating the average CPUE of each size/sex group over the geographic area of each district. Variance and standard error (SE) of the index were calculated arithmetically. Confidence intervals were calculated by adding or subtracting 2 SEs to the population estimate. Note that, since the data are usually not normally distributed, variance estimates and confidence intervals are approximate. Nevertheless, they are provided in order to indicate the range of the data relative to previous years' estimates.

Threshold levels have been established for certain crab stocks by the Crab Plan Team of The North Pacific Fishery Management Council. In accordance with Alaska Board of Fisheries policy, and the Alaska Department of Fish and Game's Management Plan for Westward Region Crab stocks, such fisheries will be closed if the abundance index falls below the threshold level.

APPENDIX B

Crab Shell Condition

All crabs measured in the NMFS eastern Bering Sea trawl survey are coded as to shell condition. Shell condition incorporates several factors including exoskeleton discoloration, scratching and wear, and fouling by encrusting organisms, and can be used to estimate the time since a crab has last molted. The shell condition categories used in this report and the estimated times since last molting that they imply are given below:

Molting[1]: Joints swollen and/or well developed second exoskeleton present. Crab is actively molting or will molt within days.

Softshell[1]: Carapace is still soft and pliable from recent molt. Crab has molted within weeks.

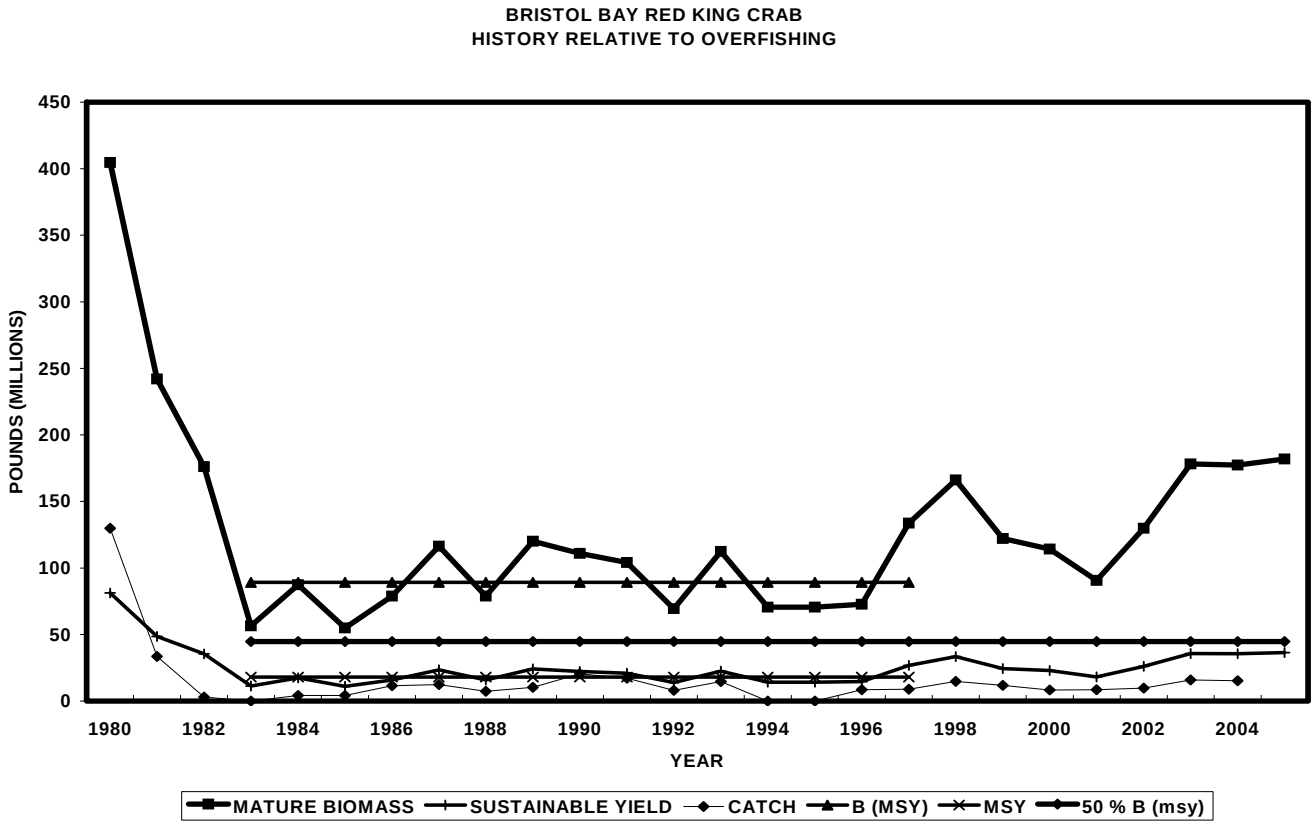
New-hardshell: Carapace firm to hard and lacking scratches, wear, discoloration, and encrusting organisms. Crab has probably molted within the last year.

Oldshell: Usually has at least some scratching, spine wear. Crab may have darker coloration, and encrusting organisms are frequently present. Crab has probably not molted within the last year.

Very oldshell: Undersides of legs yellowed; abundant scratches and stains; spines and claws very worn; encrusting organisms almost always present and often abundant. Time since the last molting is almost certainly greater than one year but not definitely known.

Very, very oldshell: Shells extensively stained and usually with extensive cover of encrusting organisims. Time since the last molting not definitely known.

[1] Note that in the report, Molting and Softshell categories are frequently combined. The time span over which these conditions occur in a crab is only a matter of weeks. A high percentage of molting and softshell crabs in a survey population indicates that the molting season is not yet over.



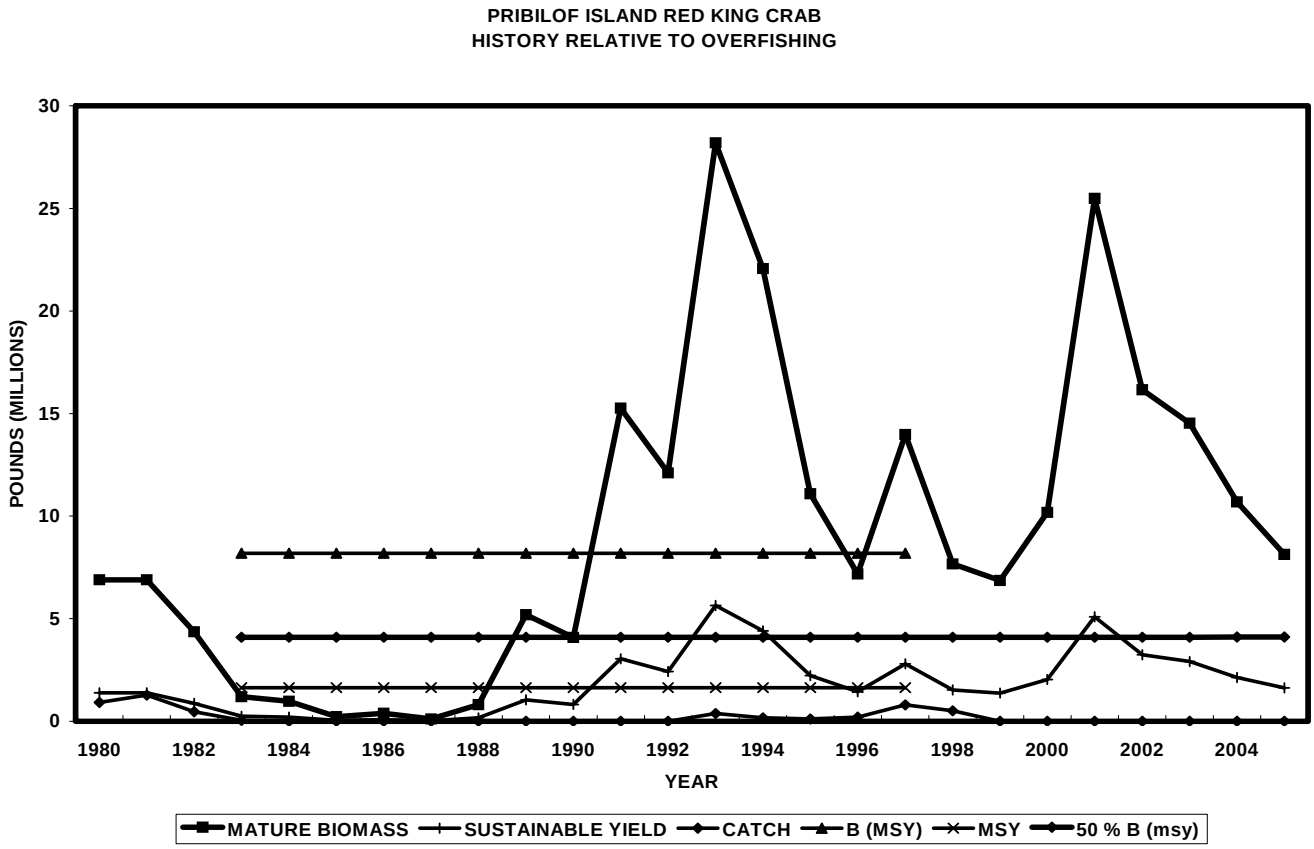
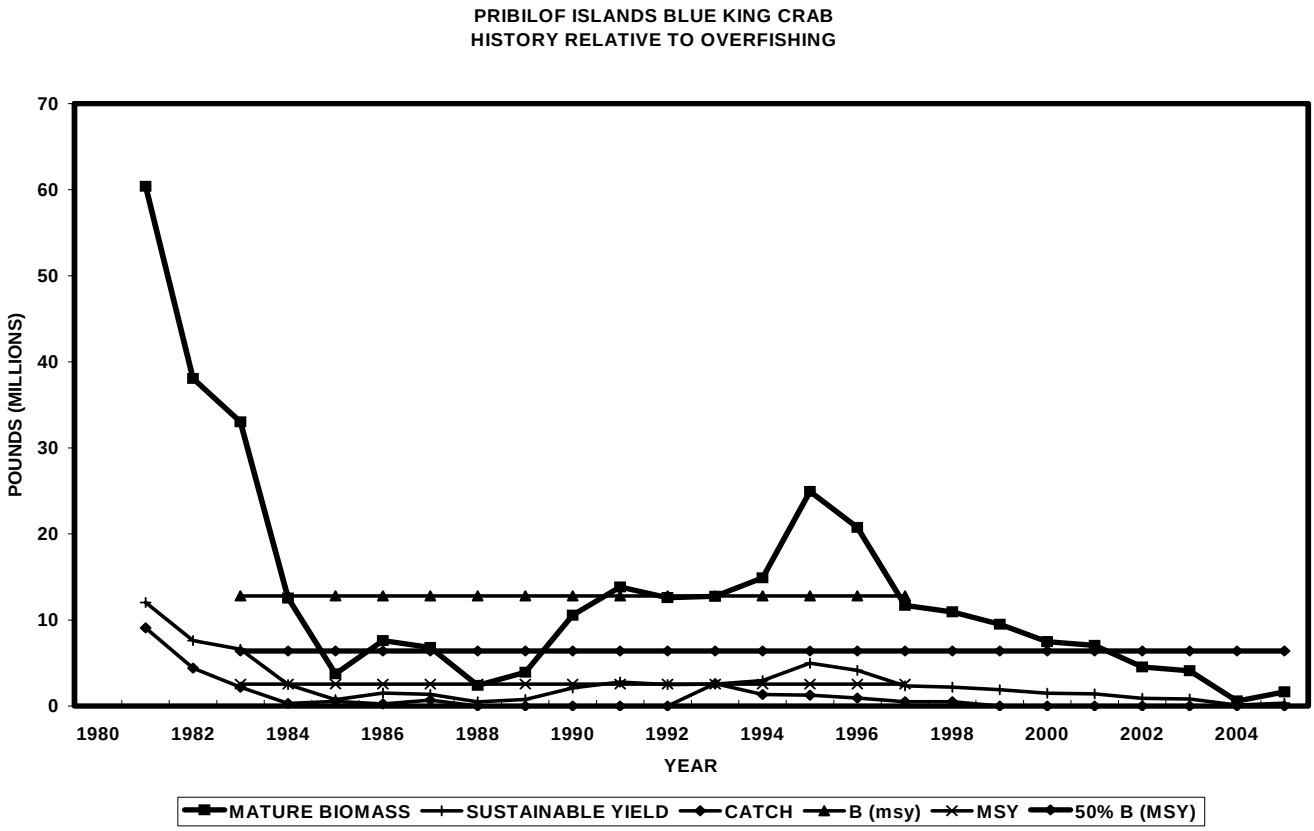


Figure 15. History of Bristol Bay and Pribilof Islands red king crab fisheries relative to overfishing under the Magnuson-Stevens Fishery Conservation and Management Act. Stocks are considered overfished if mature biomass is below 50% MSY.



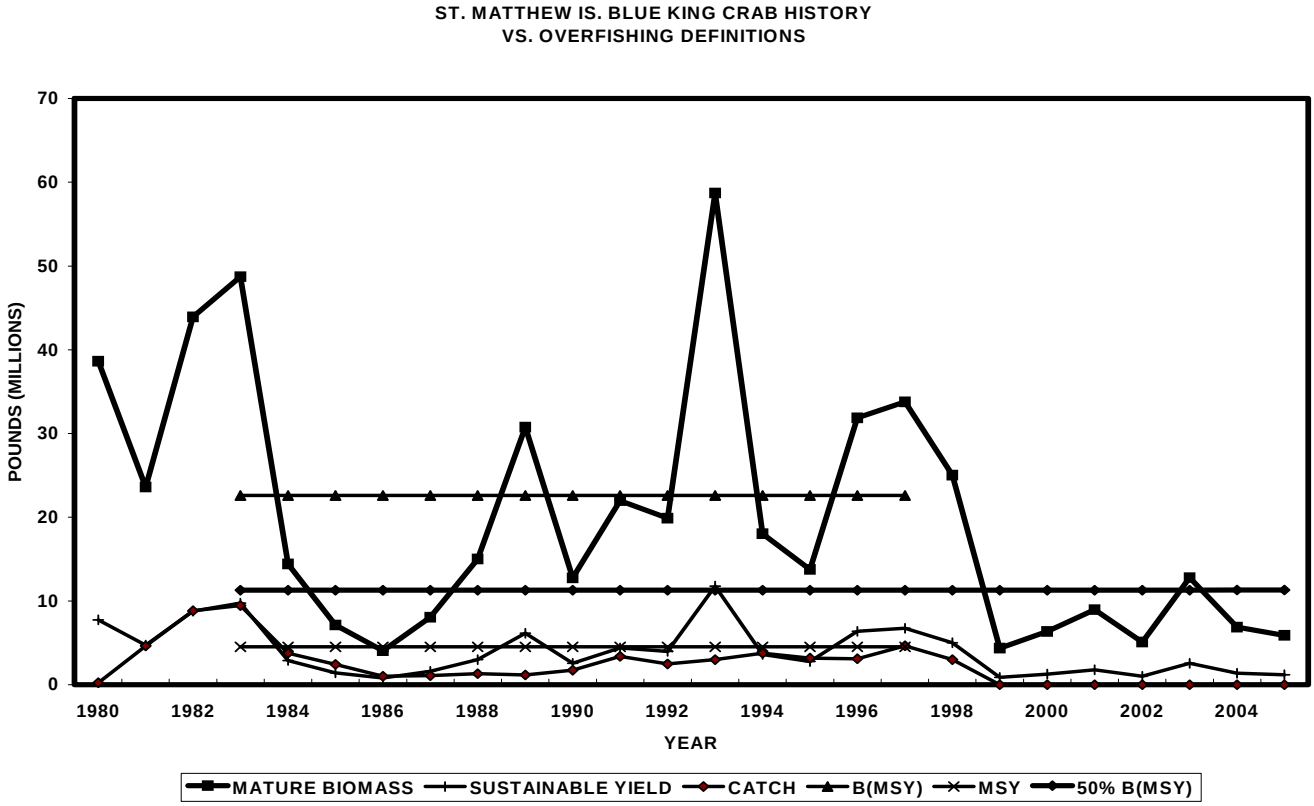
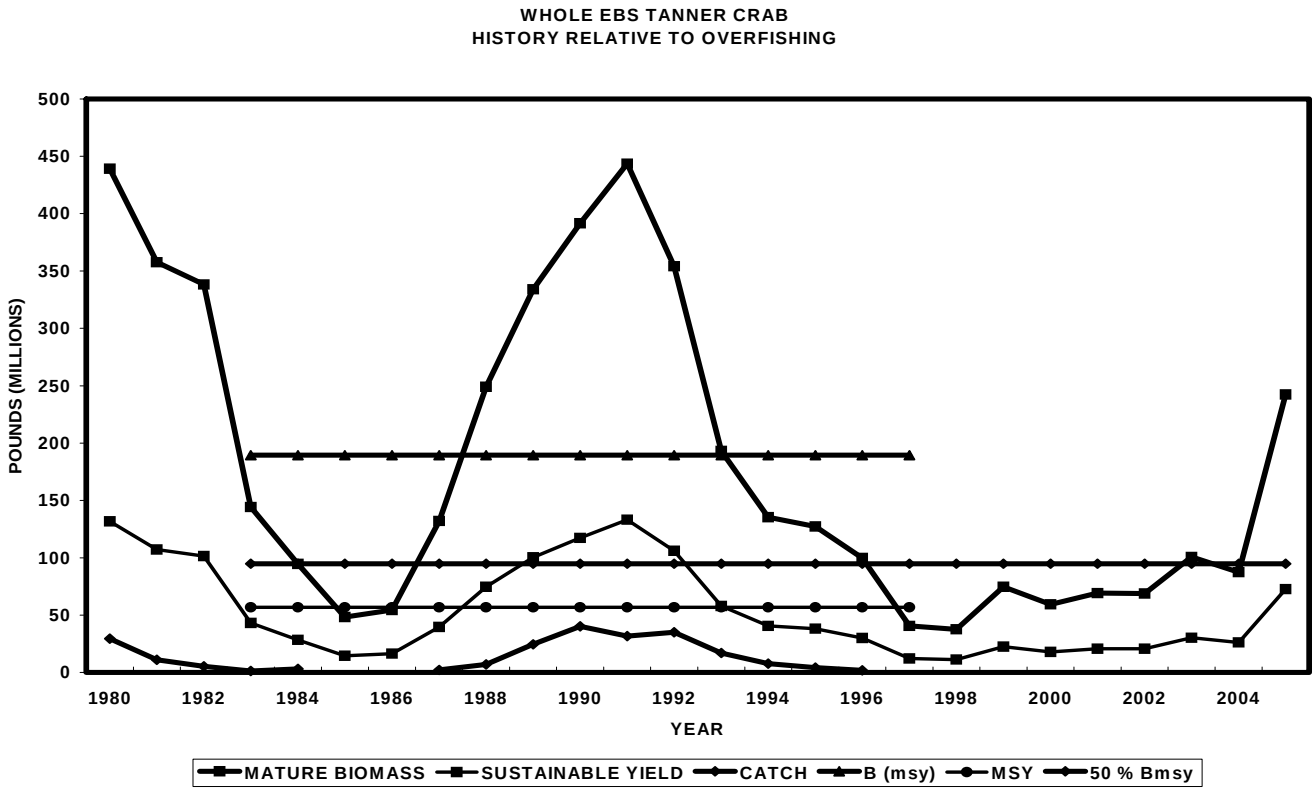


Figure 16. History of Pribilof Islands and St. Matthew Island blue king crab fisheries relative to overfishing under the Magnuson-Stevens Fishery Conservation and Management Act. The St. Matthew Island stock is considered overfished because mature biomass falls below 50% MSY.



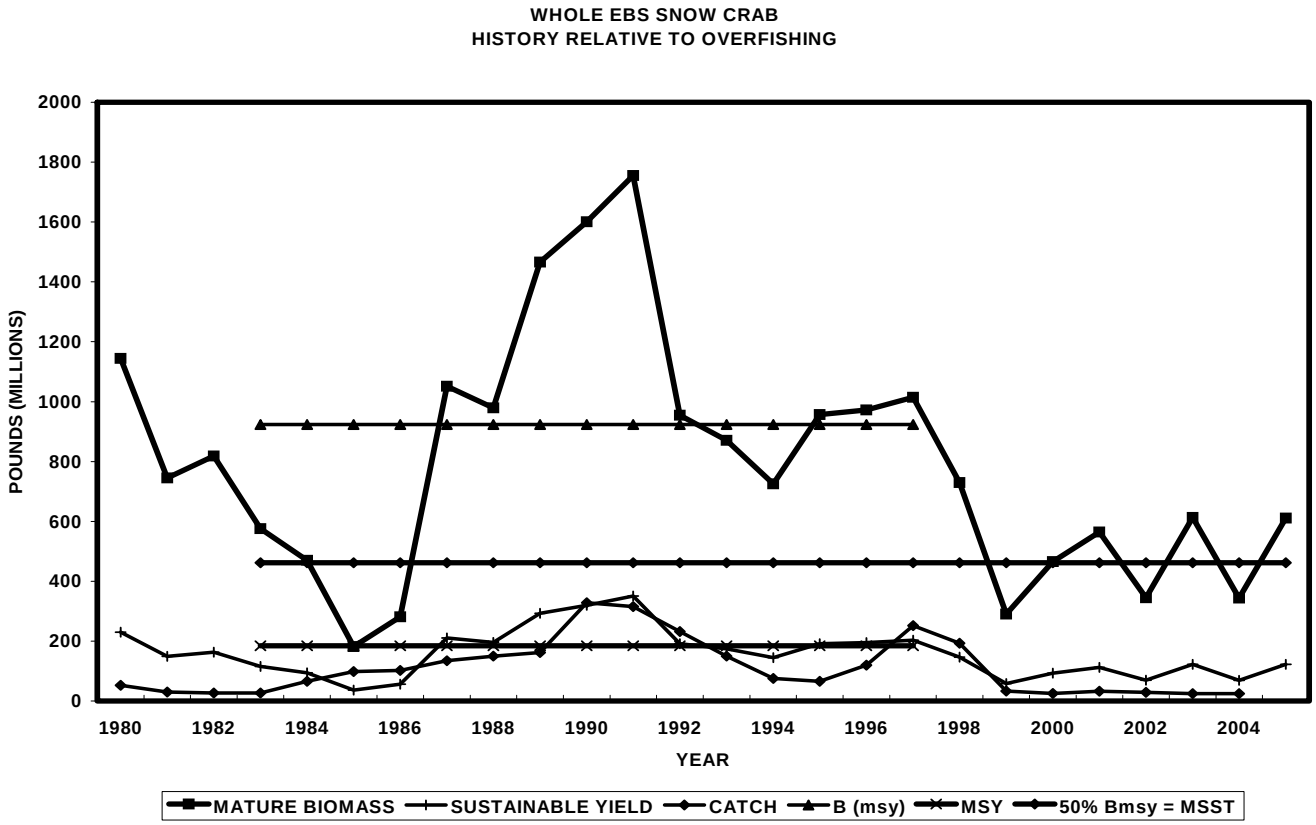


Figure 17. History of eastern Bering Sea Tanner and snow crab fisheries relative to overfishing under the Magnuson-Stevens Fishery Conservation and Management Act. Both stocks are considered overfished because mature biomass is below 50% MSY.

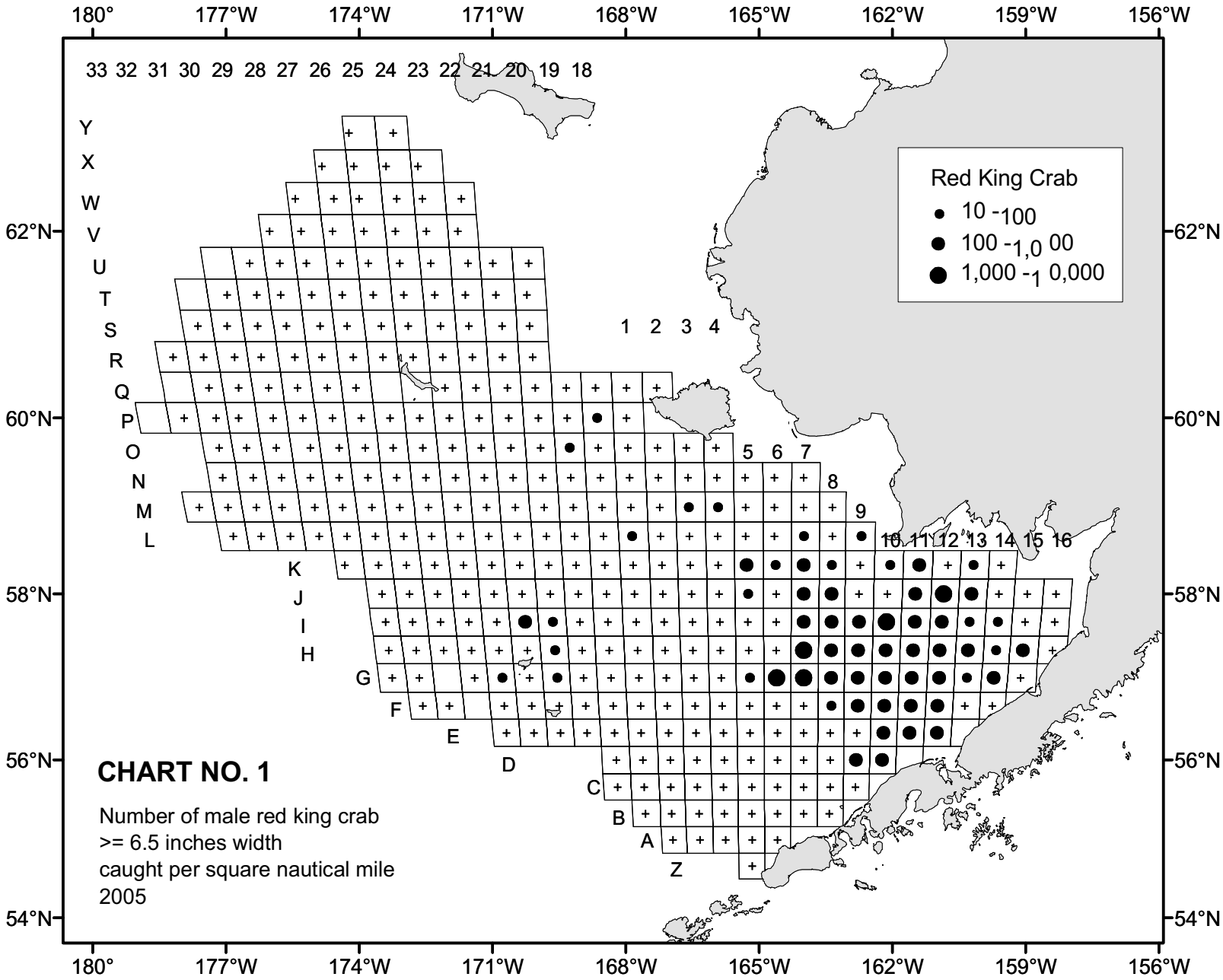
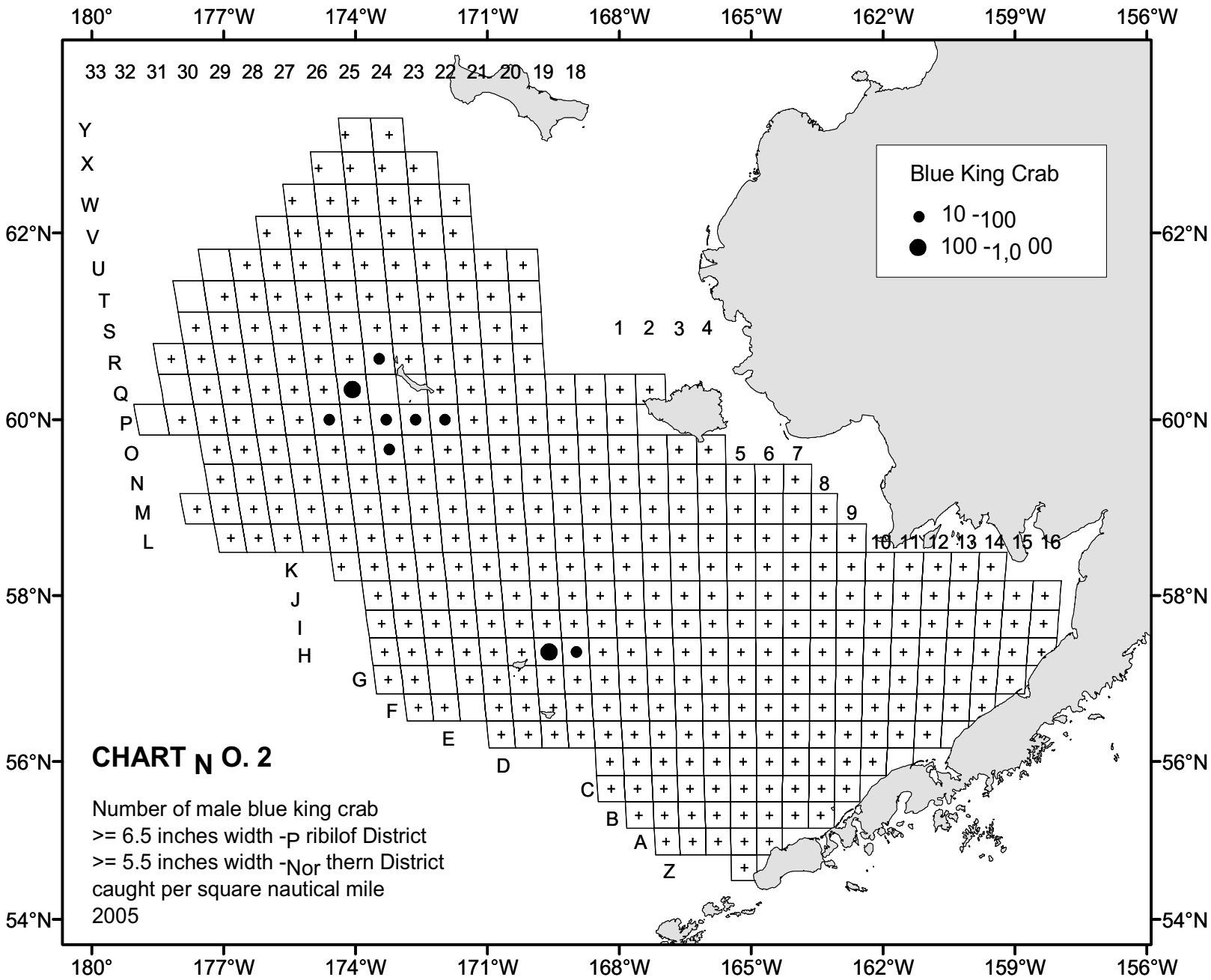


CHART NO. 1
Number of male red king crab
>= 6.5 inches width
caught per square nautical mile
2005
Red King Crab
10 - 100
100 - 1,000
1,000 - 10,000
180°
177°W
174°W
171°W
168°W
165°W
162°W
159°W
156°W
62°N
60°N
58°N
56°N
54°N


Blue King Crab
10 -100
100 -1,000
CHART NO. 2
Number of male blue king crab
>= 6.5 inches width - Pribilof District
>= 5.5 inches width - Northern District
caught per square nautical mile
2005
180°
177°W
174°W
171°W
168°W
165°W
162°W
159°W
156°W
62°N
60°N
58°N
56°N
54°N

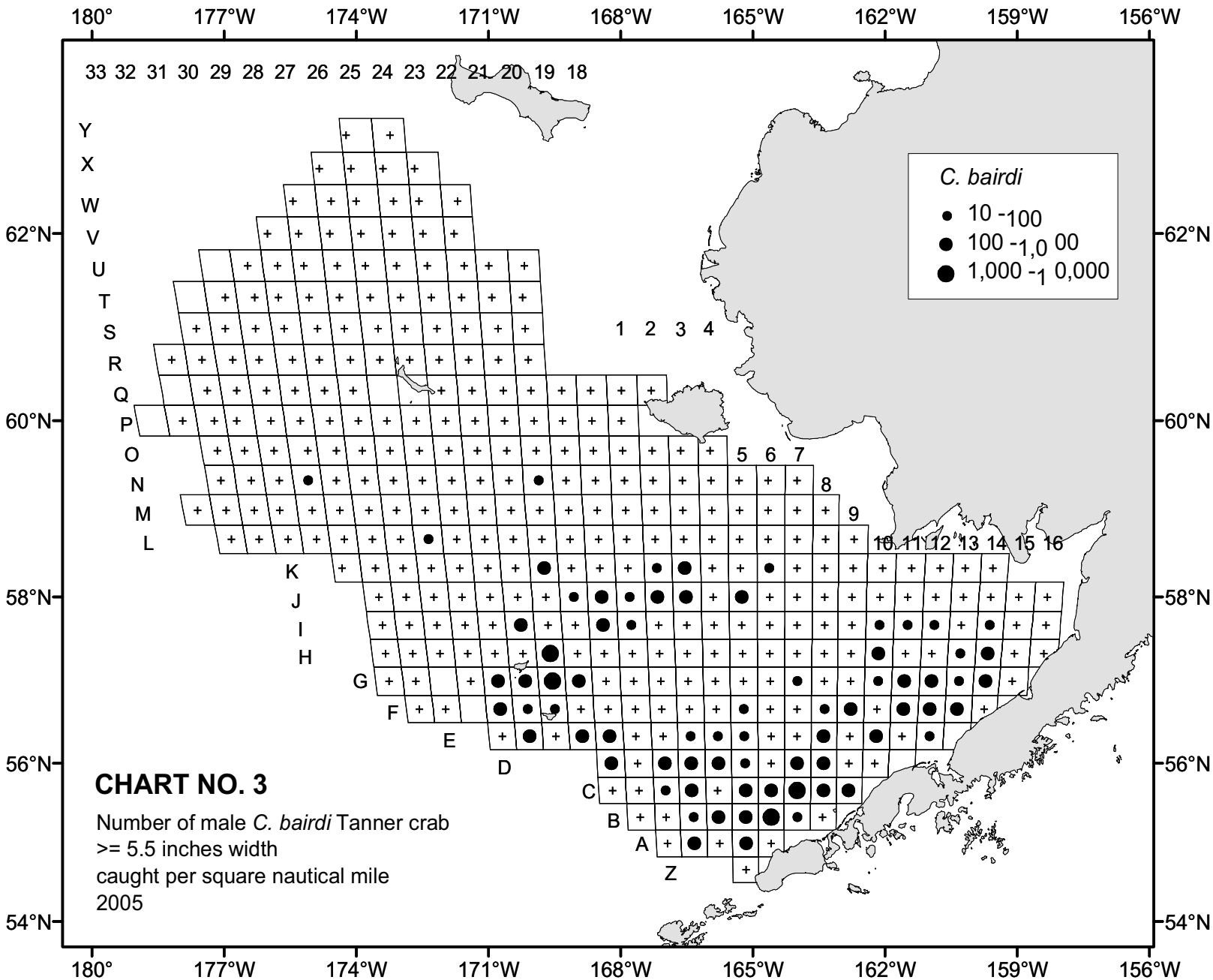


CHART NO. 3
Number of male C. bairdi Tanner crab
>= 5.5 inches width
caught per square nautical mile
2005
C. bairdi
10 - 100
100 - 1,000
1,000 - 10,000
180°
177°W
174°W
171°W
168°W
165°W
162°W
159°W
156°W
62°N
60°N
58°N
56°N
54°N

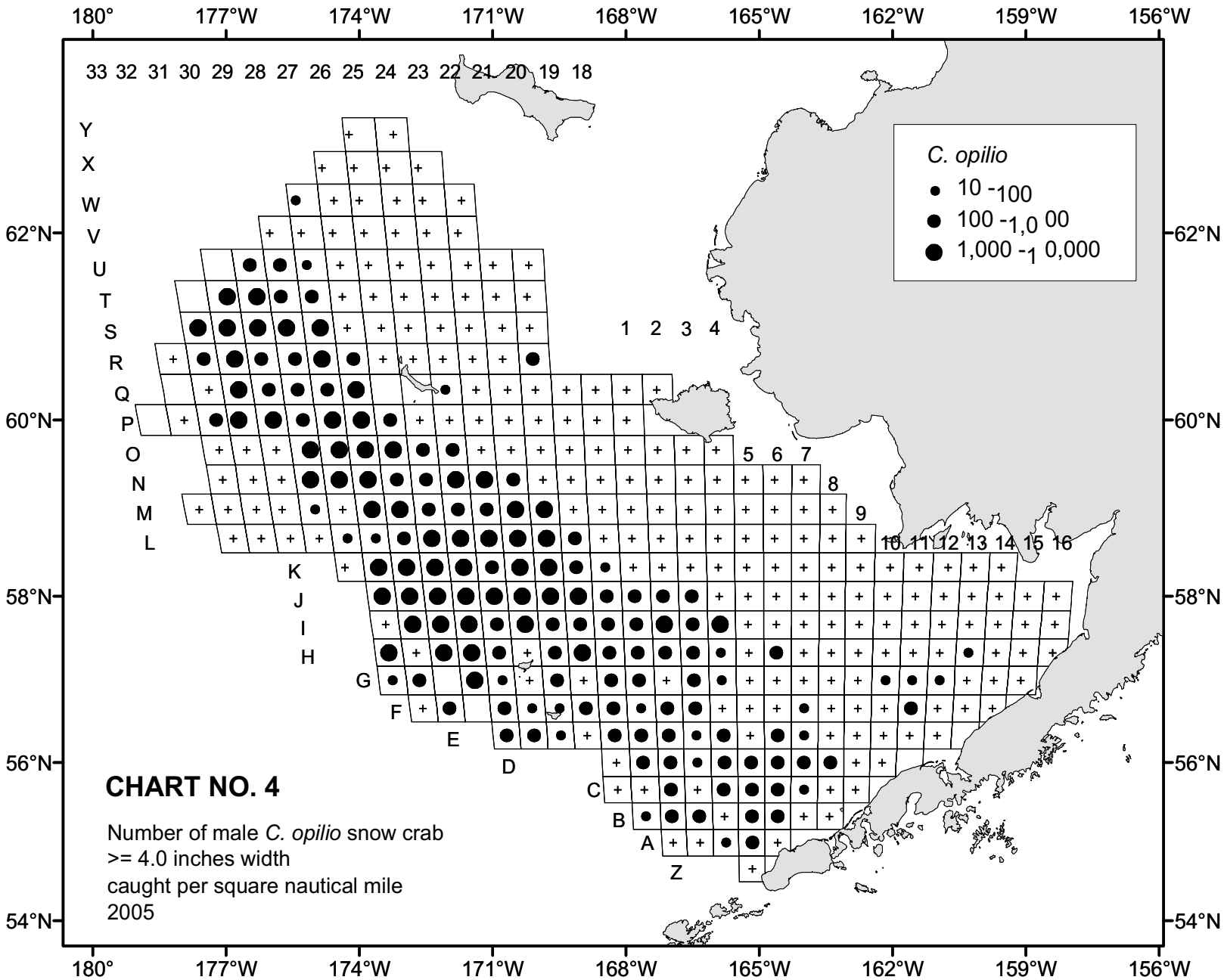


CHART NO. 4
Number of male C. opilio snow crab
>= 4.0 inches width
caught per square nautical mile
2005
C. opilio
10 - 100
100 - 1,000
1,000 - 10,000
180°
177°W
174°W
171°W
168°W
165°W
162°W
159°W
156°W
62°N
60°N
58°N
56°N
54°N

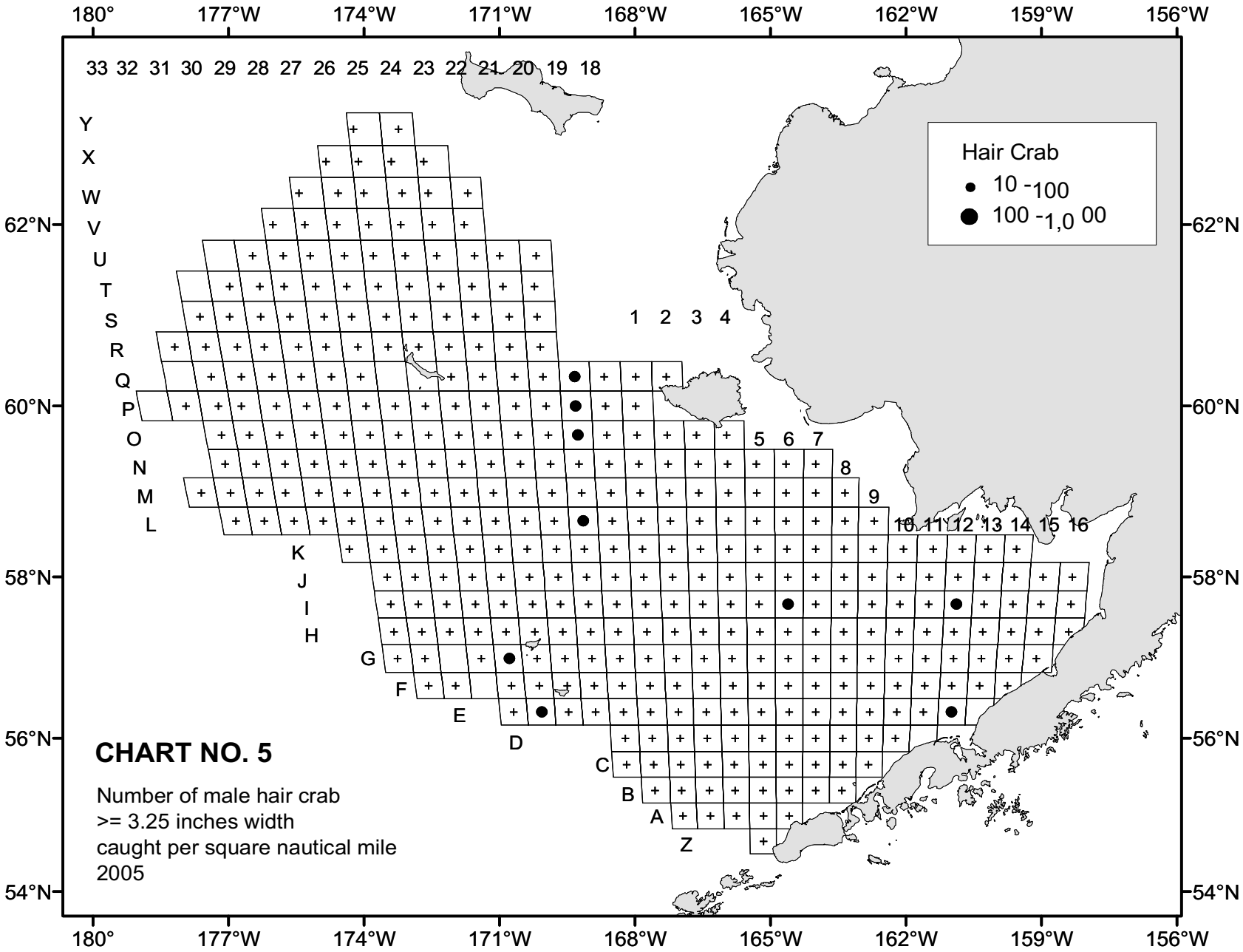


CHART NO. 5
Number of male hair crab
>= 3.25 inches width
caught per square nautical mile
2005
Hair Crab
10 - 100
100 - 1,000
180°
177°W
174°W
171°W
168°W
165°W
162°W
159°W
156°W
62°N
60°N
58°N
56°N
54°N

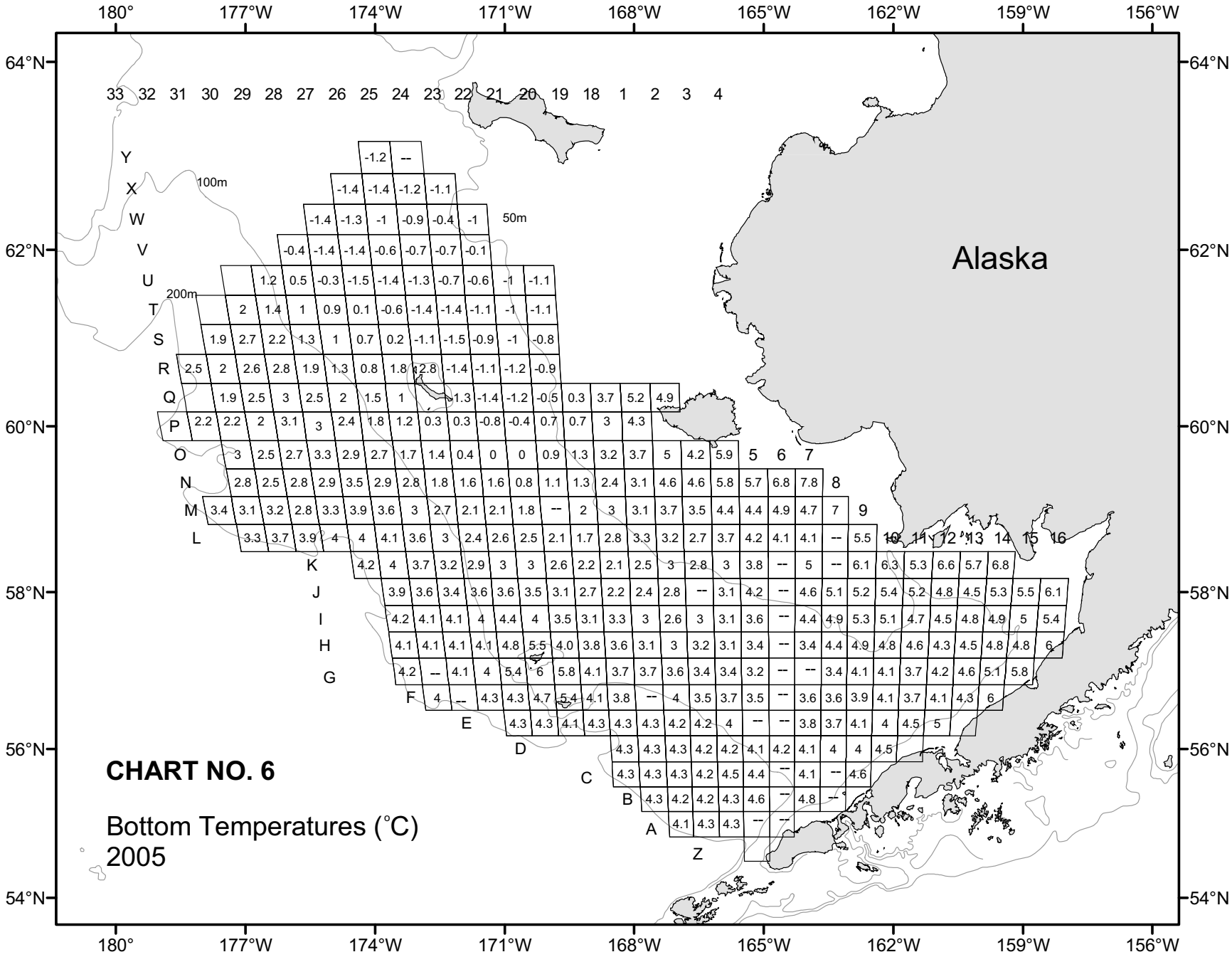


CHART NO. 6
Bottom Temperatures (°C)
2005
Alaska
100m
50m
200m
180°
177°W
174°W
171°W
168°W
165°W
162°W
159°W
156°W
64°N
62°N
60°N
58°N
56°N
54°N

Table 7. Summary of crab density by tow (# per square nmi) for Red King Crab. *(Paralithodes camtschaticus)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
C08	6/8/05	55 41.3	163 24.0	40		0	0	80	80	0	0	0	80
C09	6/8/05	55 40.4	162 50.8	26		0	0	0	0	90	0	90	90
D09	6/8/05	55 59.9	162 49.5	42		491	3207	11100	14798	15972	928	16900	31698
D10	6/8/05	55 59.8	162 16.3	38		725	484	242	1451	1773	161	1935	3386
E10	6/8/05	56 20.1	162 11.5	40		458	917	1719	3094	8594	344	8938	12032
E11	6/5/05	56 19.6	161 37.6	33		725	242	564	1530	8133	161	8294	9824
E12	6/5/05	56 19.8	161 0.5	27		469	313	78	860	548	0	548	1408
F08	6/9/05	56 39.8	163 22.9	39		79	0	0	79	0	0	0	79
F09	6/9/05	56 40.1	162 47.0	37		161	80	0	241	80	80	161	402
F10	6/7/05	56 40.2	162 10.0	36		313	626	0	940	0	0	0	940
F11	6/5/05	56 39.8	161 36.6	48		148	1181	3397	4726	6202	295	6498	11223
F12	6/5/05	56 40.6	160 59.3	34		627	157	1647	2431	3058	1568	4627	7058
F13	6/5/05	56 39.7	160 22.4	31		0	158	552	710	1420	79	1499	2210
G05	6/14/05	56 59.9	165 13.1	37		86	0	0	86	0	0	0	86
G06	6/14/05	56 59.9	164 36.1			3948	247	0	4195	0	0	0	4195
G07	6/14/05	56 59.8	164 1.7			1152	247	165	1563	0	0	0	1563
G08	6/10/05	56 59.6	163 22.9	34		799	719	0	1519	240	0	240	1758
G09	6/7/05	56 59.9	162 47.1	31		393	944	708	2046	5115	0	5115	7161
G10	6/7/05	56 59.5	162 10.0	31		382	764	764	1910	7028	76	7105	9015
G11	6/5/05	57 0.2	161 34.8	36		732	813	2277	3823	8622	244	8866	12689
G12	6/5/05	56 59.5	160 57.2	34		544	233	1864	2641	3030	2020	5050	7691
G13	6/4/05	57 0.1	160 20.5	33		84	252	3022	3358	2686	3526	6212	9570
G14	6/4/05	56 59.7	159 41.0	27		240	160	160	559	240	0	240	799
G20	6/29/05	56 59.9	169 33.0	31		154	0	0	154	1075	0	1075	1229
G22	6/30/05	57 6.4	170 33.5	36		79	79	159	318	4372	0	4372	4690
H07	6/10/05	57 20.2	164 0.7	32		1507	3332	1190	6029	159	159	317	6346
H08	6/10/05	57 20.1	163 23.1	27		650	893	325	1868	1056	0	1056	2924
H09	6/7/05	57 19.6	162 47.9	25		635	1508	317	2460	2857	79	2936	5396
H10	6/7/05	57 20.0	162 9.1	26		792	1030	634	2457	5547	475	6023	8479
H11	6/5/05	57 20.1	161 34.0	28		484	403	1209	2096	6691	1129	7819	9915
H12	6/5/05	57 19.8	160 56.5	31		394	315	315	1025	4495	79	4574	5599
H13	6/4/05	57 19.4	160 18.0	31		464	387	541	1392	3479	387	3866	5257
H14	6/4/05	57 20.1	159 40.0	29		81	324	243	648	810	0	810	1458

Table 7. Summary of crab density by tow (# per square nmi) for Red King Crab. *(Paralithodes camtschaticus)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms	Large	Medium	Small	Total	Large	Small	Total	
H15	6/3/05	57 20.3	159 3.6	25	159	0	79	238	79	0	79	317
H16	6/3/05	57 20.0	158 24.9	16	0	0	0	0	0	77	77	77
H20	6/30/05	57 29.7	169 21.7	37	82	0	0	82	0	0	0	82
I06	6/13/05	57 40.3	164 37.2		0	0	0	0	81	0	81	81
I07	6/10/05	57 39.9	164 0.1	26	407	325	0	732	0	0	0	732
I08	6/10/05	57 40.4	163 22.1	24	767	230	77	1073	383	0	383	1456
I09	6/7/05	57 40.3	162 45.2	22	313	625	156	1094	313	0	313	1407
I10	6/7/05	57 39.9	162 8.0	24	1490	706	78	2275	1334	0	1334	3608
I11	6/6/05	57 40.2	161 31.5	28	236	394	2128	2759	1577	2365	3941	6701
I12	6/6/05	57 40.0	160 53.7	30	402	161	884	1446	1205	321	1527	2973
I13	6/4/05	57 39.9	160 16.2	28	79	79	238	397	1271	0	1271	1668
I14	6/4/05	57 39.9	159 38.0	26	79	79	0	157	236	79	314	471
I15	6/3/05	57 40.4	159 1.1	25	0	0	80	80	0	0	0	80
I16	6/3/05	57 39.4	158 21.8	17	0	0	80	80	0	80	80	159
I20	6/30/05	57 39.5	169 39.8	37	80	0	0	80	0	0	0	80
I21	6/30/05	57 30.2	170 0.5	33	639	0	0	639	256	0	256	895
I21	6/30/05	57 40.0	170 15.6	36	74	0	0	74	0	0	0	74
J04	6/20/05	58 0.3	165 54.5	28	0	0	0	0	236	0	236	236
J05	6/13/05	58 0.1	165 15.4	26	80	0	0	80	0	0	0	80
J07	6/10/05	57 59.7	164 2.4	24	158	79	0	236	79	0	79	315
J08	6/10/05	57 59.9	163 22.5	22	775	542	0	1317	155	0	155	1472
J10	6/7/05	58 0.2	162 7.4	19	0	396	0	396	316	79	396	791
J11	6/6/05	57 59.7	161 29.5	29	384	0	7689	8074	154	8074	8227	16301
J12	6/6/05	58 0.3	160 51.9	23	1193	239	636	2068	398	239	636	2705
J13	6/4/05	57 59.9	160 12.4	26	161	322	161	644	483	0	483	1127
J14	6/4/05	58 0.6	159 36.8	21	0	106	0	106	106	0	106	212
J15	6/3/05	57 59.9	158 58.9	21	0	0	0	0	0	81	81	81
K01	6/21/05	58 20.1	167 50.0	31	0	0	0	0	160	0	160	160
K02	6/21/05	58 20.4	167 11.1	27	0	0	0	0	155	0	155	155
K03	6/12/05	58 19.9	166 33.4	25	0	0	0	0	78	0	78	78
K04	6/12/05	58 18.7	165 55.2	22	0	78	0	78	0	0	0	78
K05	6/13/05	58 20.1	165 18.0	23	232	77	0	309	77	0	77	387
K06	6/13/05	58 19.7	164 38.4		78	0	0	78	0	0	0	78

Table 7. Summary of crab density by tow (# per square nmi) for Red King Crab. *(Paralithodes camtschaticus)*

						Males				Females			GRAND TOTAL
Station	**Date**	**N. Lat.**	**W. Long**	**Fathoms**		**Large**	**Medium**	**Small**	**Total**	**Large**	**Small**	**Total**	
K07	6/11/05	58 20.4	164 0.7	20		158	0	0	158	79	0	79	237
K08	6/10/05	58 19.9	163 21.9			80	0	0	80	0	0	0	80
K10	6/6/05	58 19.6	162 4.2	24		81	730	27770	28581	81	25947	26028	54610
K11	6/6/05	58 12.7	161 33.0	19		151	754	151	1055	151	0	151	1206
K13	6/4/05	58 16.4	159 57.8	21		78	234	156	467	0	0	0	467
L01	6/21/05	58 39.9	167 52.3	24		80	80	0	160	0	0	0	160
L03	6/12/05	58 39.9	166 33.9	21		0	0	75	75	0	0	0	75
L05	6/13/05	58 39.5	165 20.6	20		0	241	0	241	80	0	80	321
L07	6/11/05	58 40.2	163 59.9	17		80	0	0	80	159	0	159	239
L09	6/6/05	58 38.2	162 43.9	13		76	0	152	228	0	0	0	228
M02	6/21/05	58 59.9	167 14.3	20		0	79	0	79	0	0	0	79
M03	6/12/05	58 59.9	166 35.2	17		78	0	0	78	0	0	0	78
M04	6/12/05	58 59.8	165 55.6	15		79	79	237	394	158	79	237	631
M18	6/23/05	58 60.0	168 31.4	24		0	77	0	77	0	0	0	77
N01	6/21/05	59 19.1	167 56.2	20		0	79	0	79	0	0	0	79
O01	6/21/05	59 40.5	167 57.4	18		0	0	0	0	0	78	78	78
O18	6/22/05	59 39.9	168 37.4	20		0	0	80	80	0	0	0	80
O19	6/22/05	59 40.2	169 16.6	24		79	0	0	79	79	0	79	158
P18	6/22/05	59 59.8	168 39.3	19		79	0	79	158	0	0	0	158
P19	6/22/05	59 59.7	169 19.6	23		0	0	78	78	0	0	0	78
S20	7/12/05	60 59.5	170 4.8	24		0	82	0	82	82	0	82	165

NOTE: Minimum carapace sizes used are: Large Males > 6.5 in; Medium Males = 5.2 to 6.5 in; Large Females > 4.3 in.

Table 8A. Summary of crab density by tow (# per square nmi) for Pribilofs Blue Kings. *(Paralithodes platypus)*

Station	Date	N. Lat.	W. Long	Fathoms	Males				Females			GRAND TOTAL
					Large	Medium	Small	Total	Large	Small	Total	
G03	6/20/05	56 59.8	166 28.5	38	0	82	0	82	0	0	0	82
G20	6/29/05	56 59.9	169 33.0	31	0	0	0	0	77	0	77	77
G20	6/26/05	57 9.6	169 19.7	34	0	0	0	0	210	0	210	210
H19	6/27/05	57 29.7	168 45.0	37	0	0	0	0	81	0	81	81
H19	6/26/05	57 19.9	168 59.3	37	161	0	0	161	644	0	644	805
H20	6/29/05	57 20.8	169 35.0	34	0	0	8065	8065	0	9574	9574	17639
H20	6/30/05	57 29.7	169 21.7	37	245	0	245	490	245	0	245	735
I21	6/30/05	57 40.0	170 15.6	36	0	0	74	74	0	0	0	74

NOTE: Minimum carapace sizes used are: Large Males > 6.5 in; Medium Males = 5.2 to 6.5 in; Large Females > 4.3 in.

Table 8B. Summary of crab density by tow (# per square nmi) for St. Matt. Blue Kings. *(Paralithodes platypus)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
O25	7/17/05	59 50.0	173 33.9	50		161	0	0	161	0	0	0	161
P23	7/11/05	60 9.7	172 18.4	30		113	226	339	678	226	0	226	904
P23	7/2/05	60 0.5	171 57.5	34		76	0	76	152	0	0	0	152
P24	7/11/05	60 9.7	172 59.2	31		228	152	1142	1522	304	228	533	2055
P25	7/11/05	60 0.3	173 18.9	39		233	0	233	467	78	0	78	545
P27	7/17/05	60 9.6	174 21.5	53		76	0	0	76	0	0	0	76
Q02	6/22/05	60 20.8	167 18.4	15		0	226	0	226	0	0	0	226
Q22	7/2/05	60 20.2	171 21.3	35		0	0	0	0	79	0	79	79
Q23	7/12/05	60 19.6	172 3.8	30		77	77	155	309	0	0	0	309
Q26	7/17/05	60 19.9	174 4.2	48		150	0	0	150	0	0	0	150
R24	7/16/05	60 40.1	172 45.3	22		354	118	354	826	0	236	236	1062
R25	7/16/05	60 40.2	173 28.2	34		247	330	660	1237	0	0	0	1237
S26	7/16/05	61 0.2	174 9.7	44		0	75	0	75	0	0	0	75
Y25	7/14/05	63 0.3	173 54.9	39		0	0	0	0	77	0	77	77

NOTE: Minimum carapace sizes used are: Large Males > 5.5 in; Medium Males = 4.3 to 5.5 in; Large Females > 3.8 in.

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
A02	6/18/05	55 0.3	166 55.8	83		0	164	4586	4750	164	4914	5078	9828
A03	6/18/05	55 0.2	166 19.5	77		331	1987	5382	7701	3312	9026	12338	20038
A04	6/18/05	54 50.1	165 31.1	82		0	0	10325	10325	0	11403	11403	21728
A04	6/18/05	55 0.0	165 45.2	69		0	299	12349	12649	150	20957	21106	33755
A05	6/15/05	54 59.9	165 8.7			487	568	5515	6569	162	5596	5758	12328
A06	6/15/05	55 2.5	164 35.0			0	81	81	162	0	0	0	162
B01	6/25/05	55 20.3	167 33.2	79		0	611	5344	5955	0	5802	5802	11757
B02	6/25/05	55 19.9	166 58.2	74		0	579	4632	5211	331	2729	3060	8271
B03	6/15/05	55 20.8	166 22.1	71		80	2069	6844	8993	796	6207	7003	15996
B04	6/15/05	55 20.7	165 47.7	64		326	979	8973	10278	897	12725	13623	23901
B05	6/15/05	55 20.3	165 10.6	59		889	1777	6463	9128	1858	6301	8159	17287
B06	6/15/05	55 19.9	164 33.1			4127	1619	4127	9873	5260	2994	8255	18128
B07	6/9/05	55 20.4	164 0.8	41		80	80	483	644	80	241	322	966
B08	6/9/05	55 20.1	163 24.9	25		0	77	2233	2310	0	1155	1155	3465
C01	6/25/05	55 40.0	167 35.5	72		0	1003	4933	5936	418	7023	7441	13376
C02	6/25/05	55 39.8	166 58.9	72		85	846	4398	5328	169	1692	1861	7189
C03	6/19/05	55 39.6	166 23.6	67		166	497	3561	4223	994	3726	4720	8943
C04	6/19/05	55 40.6	165 47.6	62		0	3059	17062	20121	0	45138	45138	65259
C05	6/15/05	55 39.0	165 11.3	58		774	1857	14777	17407	2398	16049	18447	35855
C06	6/15/05	55 38.6	164 34.9			243	405	2913	3561	243	1295	1538	5098
C07	6/9/05	55 41.8	164 0.6	50		2290	2211	7660	12161	1895	5054	6949	19110
C08	6/8/05	55 41.3	163 24.0	40		240	400	2878	3518	400	1999	2399	5916
C09	6/8/05	55 40.4	162 50.8	26		180	629	3236	4045	180	1708	1887	5932
C18	6/25/05	55 40.1	168 12.0	72		0	164	737	901	0	573	573	1474
D01	6/25/05	55 59.9	167 36.5	71		0	827	1158	1986	331	579	910	2896
D02	6/25/05	55 59.7	167 0.4	72		163	1797	490	2450	327	327	653	3103
D03	6/19/05	55 59.3	166 22.7	66		408	1878	1143	3430	572	1552	2123	5553
D04	6/19/05	56 0.2	165 47.4	56		551	2478	3304	6332	2463	13796	16259	22591
D05	6/14/05	56 0.0	165 11.3	51		77	306	1148	1531	306	536	842	2373
D06	6/14/05	55 59.4	164 37.0	49		0	233	1163	1396	155	78	233	1629
D07	6/9/05	55 58.3	163 57.4	48		156	391	1252	1799	156	782	939	2738
D08	6/9/05	56 0.6	163 23.7	46		323	646	4281	5251	1373	2908	4281	9532
D09	6/8/05	55 59.9	162 49.5	42		0	327	982	1310	82	82	164	1474

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
D10	6/8/05	55 59.8	162 16.3	38		0	0	322	322	0	0	0	322
D18	6/25/05	56 0.7	168 14.0	80		155	1857	25157	27169	0	36582	36582	63751
E01	6/25/05	56 20.0	167 38.9	69		0	489	3257	3746	81	3176	3257	7003
E02	6/25/05	56 20.7	167 2.1	60		0	1758	879	2637	2717	799	3517	6154
E03	6/19/05	56 20.2	166 24.9	55		82	576	905	1563	329	411	740	2303
E04	6/19/05	56 20.1	165 48.6	48		76	380	684	1140	532	304	836	1976
E05	6/14/05	56 20.1	165 12.2	45		78	156	312	545	0	78	78	623
E06	6/14/05	56 20.2	164 35.1			0	246	164	410	0	164	164	574
E07	6/9/05	56 20.6	163 57.8	45		0	734	1713	2447	82	653	734	3181
E08	6/9/05	56 19.8	163 24.7	45		241	561	882	1684	0	481	481	2165
E09	6/8/05	56 20.4	162 47.8	41		0	316	316	633	0	79	79	712
E10	6/8/05	56 20.1	162 11.5	40		115	344	458	917	0	0	0	917
E11	6/5/05	56 19.6	161 37.6	33		0	564	483	1047	81	0	81	1127
E12	6/5/05	56 19.8	161 0.5	27		78	782	548	1408	78	156	235	1643
E18	6/26/05	56 20.3	168 13.8	81		703	11243	57301	69247	1404	80052	81456	150703
E19	6/26/05	56 19.6	168 52.8	69		121	2052	11057	13230	307	18623	18931	32161
E20	6/29/05	56 25.5	169 29.5	56		0	0	1160	1160	0	464	464	1625
E21	6/29/05	56 20.2	170 3.1	57		153	3287	7645	11085	1745	6398	8143	19228
E22	7/8/05	56 20.2	170 41.5	65		0	243	19254	19497	150	15588	15737	35234
F01	6/24/05	56 40.0	167 40.4	52		0	80	559	638	80	160	239	878
F02	6/24/05	56 40.1	167 4.1	50		0	387	155	542	77	0	77	619
F03	6/19/05	56 40.3	166 25.5	44		0	477	1272	1748	79	0	79	1828
F04	6/19/05	56 40.1	165 51.5	42		0	151	602	753	0	151	151	904
F05	6/14/05	56 40.0	165 13.5	40		77	307	461	846	0	77	77	922
F06	6/14/05	56 39.9	164 36.0			0	158	237	396	79	79	158	554
F07	6/10/05	56 40.3	164 1.0	39		0	541	618	1159	154	309	463	1622
F08	6/9/05	56 39.8	163 22.9	39		79	712	1979	2771	396	1108	1504	4275
F09	6/9/05	56 40.1	162 47.0	37		161	885	563	1610	161	563	724	2334
F10	6/7/05	56 40.2	162 10.0	36		0	0	157	157	157	157	313	470
F11	6/5/05	56 39.8	161 36.6	48		148	148	443	738	0	295	295	1034
F12	6/5/05	56 40.6	160 59.3	34		314	1333	78	1725	78	78	157	1882
F13	6/5/05	56 39.7	160 22.4	31		158	552	79	789	79	0	79	868
F18	6/26/05	56 40.1	168 17.8	57		0	881	7949	8830	881	5689	6570	15400

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
F19	6/26/05	56 49.9	168 36.6	51		0	1013	5065	6078	78	2260	2338	8416
F19	6/26/05	56 40.4	168 54.6	53		0	2117	9616	11733	10272	23968	34240	45973
F20	6/29/05	56 40.1	169 30.0	42		79	792	2534	3405	0	950	950	4355
F20	6/26/05	56 49.8	169 18.2	42		0	1052	2221	3274	234	1988	2221	5495
F21	6/29/05	56 50.0	169 54.9	38		0	16488	4122	20610	0	991	991	21602
F21	6/29/05	56 40.5	170 6.8	51		77	1462	10233	11772	1000	2001	3001	14773
F22	7/4/05	56 41.3	170 43.1	60		162	2103	3317	5582	566	1133	1699	7281
F24	7/8/05	56 40.4	171 58.5	67		0	0	593	593	0	222	222	815
F25	7/8/05	56 41.0	172 34.4	72		0	0	1307	1307	0	1615	1615	2922
G01	6/24/05	56 60.0	167 42.4	40		0	632	1897	2530	79	1502	1581	4111
G02	6/24/05	56 59.9	167 5.4	38		0	399	877	1276	0	80	80	1356
G03	6/20/05	56 59.8	166 28.5	38		0	0	408	408	0	0	0	408
G04	6/20/05	56 58.1	165 50.5	38		0	78	698	775	78	0	78	853
G05	6/14/05	56 59.9	165 13.1	37		0	86	258	344	86	0	86	430
G06	6/14/05	56 59.9	164 36.1			0	82	0	82	0	0	0	82
G07	6/14/05	56 59.8	164 1.7			82	329	494	905	0	82	82	987
G08	6/10/05	56 59.6	163 22.9	34		0	240	639	879	0	240	240	1119
G09	6/7/05	56 59.9	162 47.1	31		0	236	79	315	0	0	0	315
G10	6/7/05	56 59.5	162 10.0	31		76	458	153	688	0	0	0	688
G11	6/5/05	57 0.2	161 34.8	36		163	1383	81	1627	0	0	0	1627
G12	6/5/05	56 59.5	160 57.2	34		466	2719	155	3341	0	0	0	3341
G13	6/4/05	57 0.1	160 20.5	33		84	336	84	504	168	0	168	672
G14	6/4/05	56 59.7	159 41.0	27		160	399	160	719	0	0	0	719
G18	6/26/05	56 59.0	168 20.2	43		0	319	1593	1912	212	1062	1275	3186
G19	6/26/05	56 59.6	168 56.9	42		137	546	2185	2868	0	1502	1502	4370
G20	6/29/05	56 59.9	169 33.0	31		1843	1766	1382	4991	921	845	1766	6757
G20	6/26/05	57 9.6	169 19.7	34		0	841	1472	2313	210	526	736	3048
G21	6/29/05	57 9.6	169 53.3	26		82	0	9381	9463	82	4937	5020	14483
G21	6/29/05	56 59.9	170 10.7	36		1808	12056	18084	31948	6149	10704	16853	48801
G22	7/4/05	56 59.9	170 46.9	51		387	2091	4105	6583	310	1162	1471	8054
G22	6/29/05	56 50.2	170 28.6	54		1982	5120	21803	28905	3696	7818	11513	40418
G22	6/30/05	57 6.4	170 33.5	36		79	477	1192	1749	397	477	874	2623
G23	7/4/05	57 0.7	171 24.2	57		0	1344	8398	9741	3141	17590	20731	30473

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
G25	7/8/05	57 0.1	172 39.2	62		0	0	1507	1507	0	1269	1269	2777
G26	7/9/05	57 0.3	173 15.4	76		0	80	4823	4903	902	21878	22781	27684
H01	6/24/05	57 19.5	167 44.6	38		0	1237	3556	4793	77	1392	1469	6262
H02	6/24/05	57 19.8	167 7.0	37		0	400	560	961	0	240	240	1201
H03	6/20/05	57 20.2	166 28.8	36		0	0	462	462	0	0	0	462
H04	6/20/05	57 20.2	165 52.1	36		0	0	237	237	0	0	0	237
H06	6/13/05	57 20.0	164 37.2			0	240	240	480	0	0	0	480
H07	6/10/05	57 20.2	164 0.7	32		0	159	0	159	0	79	79	238
H09	6/7/05	57 19.6	162 47.9	25		0	79	0	79	0	0	0	79
H10	6/7/05	57 20.0	162 9.1	26		238	396	158	792	0	0	0	792
H11	6/5/05	57 20.1	161 34.0	28		0	806	0	806	0	0	0	806
H12	6/5/05	57 19.8	160 56.5	31		0	158	0	158	0	0	0	158
H13	6/4/05	57 19.4	160 18.0	31		77	696	155	928	77	0	77	1005
H14	6/4/05	57 20.1	159 40.0	29		162	324	81	567	0	0	0	567
H15	6/3/05	57 20.3	159 3.6	25		0	79	159	238	0	0	0	238
H18	6/27/05	57 19.4	168 22.9	38		0	309	4555	4864	0	4015	4015	8879
H19	6/27/05	57 29.7	168 45.0	37		0	161	1610	1771	0	886	886	2657
H19	6/26/05	57 19.9	168 59.3	37		0	725	1288	2013	0	0	0	2013
H19	6/27/05	57 10.0	168 38.4	40		0	238	1743	1981	0	555	555	2536
H20	6/29/05	57 20.8	169 35.0	34		5381	6963	317	12660	0	80	80	12740
H20	6/30/05	57 29.7	169 21.7	37		82	653	2041	2775	0	653	653	3429
H22	7/4/05	57 19.9	170 51.7	44		0	160	561	722	0	80	80	802
H23	7/4/05	57 20.3	171 28.4	53		0	1178	12078	13256	4861	9574	14434	27691
H24	7/9/05	57 19.9	172 5.9	57		0	898	2450	3348	82	1143	1225	4573
H25	7/9/05	57 21.9	172 44.7	62		0	0	1476	1476	0	656	656	2132
H26	7/9/05	57 21.7	173 20.0	65		0	0	872	872	67	738	805	1678
I01	6/24/05	57 40.0	167 46.0	36		82	1146	8110	9338	2185	4206	6391	15729
I02	6/24/05	57 40.1	167 7.4	36		0	321	562	884	0	321	321	1205
I03	6/20/05	57 40.1	166 30.6	34		0	82	247	329	0	0	0	329
I04	6/20/05	57 40.4	165 53.2	33		0	76	229	306	0	0	0	306
I05	6/13/05	57 39.9	165 16.2	32		0	233	78	311	0	0	0	311
I06	6/13/05	57 40.3	164 37.2			0	0	81	81	0	0	0	81
I07	6/10/05	57 39.9	164 0.1	26		0	81	81	163	0	0	0	163

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
I08	6/10/05	57 40.4	163 22.1	24		0	0	77	77	0	0	0	77
I10	6/7/05	57 39.9	162 8.0	24		78	157	0	235	0	0	0	235
I11	6/6/05	57 40.2	161 31.5	28		79	236	0	315	0	0	0	315
I12	6/6/05	57 40.0	160 53.7	30		80	321	0	402	0	0	0	402
I13	6/4/05	57 39.9	160 16.2	28		0	159	0	159	0	0	0	159
I14	6/4/05	57 39.9	159 38.0	26		79	79	79	236	0	0	0	236
I15	6/3/05	57 40.4	159 1.1	25		0	0	80	80	0	0	0	80
I18	6/27/05	57 39.8	168 23.7	37		115	1384	576	2075	0	231	231	2306
I19	6/30/05	57 41.3	169 2.1	36		0	413	2066	2480	83	2893	2975	5455
I20	6/30/05	57 39.5	169 39.8	37		0	320	1279	1599	0	720	720	2319
I21	6/30/05	57 49.3	169 59.0	38		0	0	7304	7304	0	28080	28080	35384
I21	6/30/05	57 30.2	170 0.5	33		4092	3708	1534	9335	0	511	511	9846
I21	6/30/05	57 40.0	170 15.6	36		0	223	1039	1261	0	148	148	1409
I22	7/4/05	57 39.4	170 53.7	45		0	264	1671	1935	264	616	879	2814
I22	6/30/05	57 30.4	170 35.6	39		0	296	1037	1333	0	74	74	1407
I22	7/1/05	57 49.8	170 36.5	41		0	0	153	153	0	77	77	230
I23	7/4/05	57 39.2	171 32.3	53		0	676	826	1502	0	976	976	2478
I24	7/9/05	57 40.1	172 9.5	56		0	87	1822	1909	174	1562	1735	3644
I25	7/9/05	57 40.0	172 47.8	63		0	0	1218	1218	0	1124	1124	2341
I26	7/9/05	57 40.1	173 23.4	78		0	0	150	150	75	676	751	901
J01	6/24/05	57 59.4	167 48.3	35		80	637	2548	3264	0	1115	1115	4379
J02	6/24/05	58 0.1	167 10.3	33		242	967	1450	2658	0	81	81	2739
J03	6/20/05	58 0.1	166 31.5			550	629	629	1809	0	79	79	1887
J04	6/20/05	58 0.3	165 54.5	28		0	0	157	157	0	0	0	157
J05	6/13/05	58 0.1	165 15.4	26		159	0	80	239	0	0	0	239
J06	6/13/05	57 59.9	164 37.3			0	0	78	78	0	0	0	78
J08	6/10/05	57 59.9	163 22.5	22		0	0	77	77	0	0	0	77
J11	6/6/05	57 59.7	161 29.5	29		0	154	0	154	0	0	0	154
J12	6/6/05	58 0.3	160 51.9	23		0	80	0	80	0	0	0	80
J13	6/4/05	57 59.9	160 12.4	26		0	0	81	81	0	0	0	81
J18	6/23/05	57 59.9	168 26.1	36		159	636	7170	7965	0	5562	5562	13527
J19	6/23/05	57 59.3	169 4.9	36		0	398	11148	11546	0	33829	33829	45375
J19	6/23/05	57 50.1	168 45.9	37		133	5588	12374	18095	0	7704	7704	25798

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
J20	6/30/05	57 50.9	169 23.2	34		0	162	16742	16904	0	28376	28376	45280
J20	7/1/05	57 59.8	169 41.7	37		0	0	6534	6534	2908	14540	17448	23982
J21	7/1/05	57 59.7	170 20.8	39		0	152	3260	3412	1516	4548	6064	9476
J22	7/4/05	57 59.7	170 57.6	46		0	81	40069	40150	326	10293	10619	50769
J23	7/4/05	58 0.2	171 36.0	52		0	210	210	419	3716	3716	7433	7852
J24	7/10/05	58 0.5	172 15.0	55		0	342	10847	11189	171	6406	6577	17766
J25	7/10/05	58 0.4	172 51.7	58		0	0	835	835	0	1139	1139	1974
J26	7/9/05	58 0.1	173 28.5	62		0	0	5923	5923	154	3000	3154	9076
K01	6/21/05	58 20.1	167 50.0	31		0	160	321	481	80	160	240	721
K02	6/21/05	58 20.4	167 11.1	27		77	0	773	850	155	77	232	1082
K03	6/12/05	58 19.9	166 33.4	25		156	0	0	156	0	0	0	156
K04	6/12/05	58 18.7	165 55.2	22		0	78	78	155	0	0	0	155
K06	6/13/05	58 19.7	164 38.4			78	78	78	233	0	0	0	233
K18	6/23/05	58 19.8	168 29.0	34		0	0	7408	7408	0	788	788	8196
K19	6/23/05	58 19.8	169 7.5	35		0	0	19355	19355	0	12110	12110	31466
K20	7/1/05	58 20.7	169 44.5	36		247	82	34396	34725	0	22414	22414	57139
K21	7/1/05	58 20.1	170 23.3	39		0	0	53654	53654	0	73166	73166	126820
K22	7/3/05	58 21.2	171 1.0	44		0	82	1236	1319	0	742	742	2060
K23	7/3/05	58 20.4	171 39.1	51		0	106	1377	1483	0	1165	1165	2648
K24	7/10/05	58 20.1	172 18.4	54		0	0	264	264	88	176	264	527
K25	7/10/05	58 20.0	172 55.5	58		0	0	690	690	0	575	575	1265
K26	7/22/05	58 20.2	173 34.4	62		0	0	1940	1940	539	3557	4096	6036
K27	7/22/05	58 20.4	174 19.2	92		0	0	3666	3666	0	1833	1833	5499
L02	6/21/05	58 40.2	167 13.2	22		0	0	77	77	0	0	0	77
L18	6/23/05	58 40.5	168 30.1	27		0	0	79	79	0	0	0	79
L19	6/23/05	58 40.1	169 9.0	33		0	0	1180	1180	0	708	708	1889
L20	7/1/05	58 40.1	169 47.7	34		0	0	8942	8942	0	6228	6228	15171
L21	7/1/05	58 40.7	170 26.3	39		0	146	25949	26095	0	51164	51164	77260
L22	7/3/05	58 40.1	171 5.1	44		0	0	1723	1723	0	2954	2954	4677
L23	7/3/05	58 40.0	171 43.1	49		0	75	226	302	0	151	151	453
L24	7/10/05	58 40.2	172 21.0	53		89	890	2581	3560	0	1513	1513	5073
L25	7/10/05	58 40.1	172 60.0	60		0	0	1153	1153	77	2382	2459	3611
L26	7/22/05	58 40.0	173 38.6	68		0	0	1406	1406	74	1110	1184	2590

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
L27	7/22/05	58 40.0	174 16.2	83		0	0	5183	5183	0	4116	4116	9298
L28	7/22/05	58 45.0	174 56.5	75		0	0	4717	4717	0	3678	3678	8395
L29	7/22/05	58 40.1	175 33.4	72		0	0	764	764	0	594	594	1358
L30	7/22/05	58 38.8	176 13.1	77		0	0	1508	1508	0	1927	1927	3435
L31	7/21/05	58 39.9	176 49.0	73		0	0	739	739	0	328	328	1067
M18	6/23/05	58 60.0	168 31.4	24		0	77	77	154	0	0	0	154
M19	6/23/05	59 0.0	169 10.8	28		0	0	238	238	0	159	159	397
M20	7/1/05	59 0.6	169 50.0	32		0	0	1514	1514	0	1992	1992	3505
M21	7/1/05	59 0.2	170 28.4	37		0	0	4526	4526	0	1509	1509	6035
M22	7/3/05	58 59.9	171 8.5	40		0	0	76	76	0	380	380	457
M23	7/3/05	58 60.0	171 47.3	45		0	0	432	432	0	649	649	1081
M24	7/10/05	58 58.8	172 27.3	52		0	0	583	583	0	499	499	1082
M25	7/10/05	59 0.2	173 4.9	56		0	76	758	834	0	758	758	1592
M26	7/22/05	58 59.8	173 43.5	63		0	0	9769	9769	514	7712	8226	17995
M27	7/21/05	58 59.9	174 23.3	67		0	153	2529	2682	843	2069	2912	5594
M28	7/21/05	58 59.8	175 0.9	69		0	0	6850	6850	150	4208	4358	11208
M29	7/22/05	58 59.4	175 42.1	71		0	0	747	747	83	332	415	1163
M30	7/22/05	58 59.5	176 18.9	72		0	81	81	162	81	81	162	325
M31	7/21/05	58 58.2	176 59.9	71		0	172	258	430	0	172	172	602
M32	7/21/05	59 0.4	177 33.9	71		0	0	83	83	0	166	166	250
N20	7/1/05	59 21.1	169 53.3	32		78	78	706	863	0	314	314	1177
N21	7/2/05	59 20.0	170 32.1	36		0	0	387	387	0	232	232	619
N22	7/3/05	59 19.2	171 11.0	39		0	0	2122	2122	0	1414	1414	3536
N23	7/3/05	59 19.9	171 50.2	42		0	0	3535	3535	0	2946	2946	6482
N24	7/10/05	59 19.1	172 29.1	46		0	0	1359	1359	85	680	765	2124
N25	7/10/05	59 20.1	173 9.3	53		0	233	544	777	0	621	621	1398
N26	7/21/05	59 20.1	173 48.4	59		0	0	76	76	0	0	0	76
N27	7/21/05	59 19.6	174 27.0	64		0	0	4365	4365	224	3917	4141	8505
N28	7/21/05	59 20.0	175 5.7	72		76	152	3412	3640	0	3488	3488	7128
N29	7/20/05	59 20.0	175 45.8	73		0	0	1792	1792	0	336	336	2128
N30	7/20/05	59 20.4	176 23.5	72		0	0	185	185	185	370	556	741
N31	7/21/05	59 19.9	177 3.9	79		0	0	171	171	0	171	171	342
O20	7/2/05	59 40.0	169 54.8	30		0	0	393	393	0	157	157	550

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
O22	7/3/05	59 39.8	171 15.2	38		0	80	718	797	0	319	319	1116
O23	7/11/05	59 49.8	172 13.8	39		0	0	2517	2517	0	2513	2513	5030
O23	7/3/05	59 40.0	171 54.2	42		0	0	409	409	0	408	408	817
O24	7/11/05	59 40.3	172 32.7	44		0	0	7463	7463	0	5648	5648	13112
O25	7/11/05	59 30.4	172 54.4	49		0	0	8084	8084	87	6607	6694	14778
O25	7/17/05	59 50.0	173 33.9	50		0	0	1445	1445	0	1204	1204	2649
O25	7/11/05	59 40.1	173 14.0	51		0	0	382	382	0	535	535	916
O25	7/11/05	59 49.9	172 55.2	43		0	0	4537	4537	0	1512	1512	6050
O26	7/17/05	59 39.9	173 50.9	55		0	0	505	505	84	1177	1262	1766
O26	7/11/05	59 30.2	173 29.8	54		0	0	945	945	158	1339	1497	2442
O27	7/17/05	59 39.9	174 27.0	61		0	77	0	77	0	0	0	77
O29	7/20/05	59 40.1	175 51.3	73		0	0	3481	3481	225	2134	2358	5840
O30	7/20/05	59 39.8	176 32.0	72		0	0	77	77	0	230	230	307
O31	7/21/05	59 40.6	177 8.4	90		0	86	857	943	86	0	86	1028
P20	7/2/05	59 59.8	169 57.9	28		0	0	0	0	0	246	246	246
P23	7/11/05	60 9.7	172 18.4	30		0	0	113	113	0	0	0	113
P24	7/11/05	59 59.3	172 34.8	34		0	0	83	83	0	0	0	83
P25	7/11/05	60 0.3	173 18.9	39		0	0	467	467	0	233	233	700
P26	7/17/05	60 7.6	173 46.7	46		0	0	5084	5084	0	2542	2542	7626
P26	7/17/05	60 0.2	173 56.5	51		0	0	551	551	0	236	236	787
P27	7/17/05	60 9.6	174 21.5	53		0	0	0	0	0	76	76	76
P28	7/18/05	60 0.2	175 16.0	63		0	76	1979	2055	0	2055	2055	4110
P29	7/19/05	60 0.3	175 55.9	69		0	226	6427	6653	0	7555	7555	14207
P30	7/20/05	60 0.2	176 43.0	75		0	0	919	919	0	996	996	1915
P32	7/20/05	59 59.4	177 57.5	75		0	0	178	178	0	178	178	357
Q26	7/17/05	60 19.9	174 4.2	48		0	0	21014	21014	0	6005	6005	27019
Q27	7/18/05	60 20.2	174 43.7	54		0	0	165	165	0	0	0	165
Q28	7/18/05	60 20.5	175 23.2	59		0	0	1199	1199	150	1498	1648	2847
Q29	7/19/05	60 20.1	176 3.4	65		0	77	2849	2926	0	3234	3234	6160
Q30	7/19/05	60 20.8	176 43.4	73		0	0	1143	1143	0	2400	2400	3543
Q31	7/20/05	60 20.4	177 24.8	77		0	89	0	89	0	0	0	89
R28	7/18/05	60 40.4	175 27.2	57		0	0	301	301	0	301	301	602
R29	7/19/05	60 40.3	176 12.1	63		0	0	1763	1763	0	1916	1916	3679

Table 9. Summary of crab density by tow (# per square nmi) for Tanner Crab. *(Chionoecetes bairdi)*

					Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms	Large	Medium	Small	Total	Large	Small	Total	
R30	7/19/05	60 40.1	176 47.3	68	0	0	22727	22727	1033	24794	25827	48554
R32	7/20/05	60 39.0	178 10.6	86	0	0	0	0	0	255	255	255
S29	7/18/05	61 0.2	176 16.2	60	0	0	679	679	0	1283	1283	1962
S30	7/19/05	60 60.0	176 57.7	65	0	0	416	416	0	249	249	665
S31	7/19/05	60 59.4	177 37.4	72	0	0	0	0	0	83	83	83
T29	7/19/05	61 19.4	176 17.9	56	0	0	163	163	0	407	407	570
T30	7/19/05	61 19.6	176 60.0	62	0	0	84	84	0	0	0	84
Z05	6/15/05	54 39.6	165 9.3		0	0	77	77	0	0	0	77

NOTE: Minimum carapace sizes used are: Large Males > 5.5 in; Medium Males = 4.3 to 5.5 in; Large Females > 3.4 in.

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
A03	6/18/05	55 0.2	166 19.5	77		0	0	166	166	0	0	0	166
A04	6/18/05	54 50.1	165 31.1	82		77	0	0	77	0	0	0	77
A04	6/18/05	55 0.0	165 45.2	69		75	75	0	150	0	0	0	150
A05	6/15/05	54 59.9	165 8.7			406	81	81	568	0	0	0	568
B01	6/25/05	55 20.3	167 33.2	79		76	76	76	229	0	0	0	229
B02	6/25/05	55 19.9	166 58.2	74		414	165	165	744	0	0	0	744
B03	6/15/05	55 20.8	166 22.1	71		239	239	0	477	0	0	0	477
B04	6/15/05	55 20.7	165 47.7	64		0	0	82	82	0	0	0	82
B05	6/15/05	55 20.3	165 10.6	59		162	323	404	889	0	0	0	889
B06	6/15/05	55 19.9	164 33.1			405	324	647	1376	0	0	0	1376
B07	6/9/05	55 20.4	164 0.8	41		0	80	0	80	0	0	0	80
C02	6/25/05	55 39.8	166 58.9	72		169	85	507	761	169	0	169	930
C04	6/19/05	55 40.6	165 47.6	62		247	82	412	741	0	0	0	741
C05	6/15/05	55 39.0	165 11.3	58		542	77	619	1238	0	0	0	1238
C06	6/15/05	55 38.6	164 34.9			647	1052	9145	10844	0	0	0	10844
C07	6/9/05	55 41.8	164 0.6	50		79	0	0	79	0	0	0	79
C08	6/8/05	55 41.3	163 24.0	40		0	0	80	80	0	0	0	80
D01	6/25/05	55 59.9	167 36.5	71		165	0	0	165	0	0	0	165
D02	6/25/05	55 59.7	167 0.4	72		163	0	82	245	0	0	0	245
D03	6/19/05	55 59.3	166 22.7	66		82	0	163	245	0	0	0	245
D04	6/19/05	56 0.2	165 47.4	56		408	326	1142	1876	0	0	0	1876
D05	6/14/05	56 0.0	165 11.3	51		383	230	1454	2067	0	0	0	2067
D06	6/14/05	55 59.4	164 37.0	49		155	78	543	776	0	0	0	776
D07	6/9/05	55 58.3	163 57.4	48		156	0	156	313	0	0	0	313
D08	6/9/05	56 0.6	163 23.7	46		485	162	81	727	0	0	0	727
D09	6/8/05	55 59.9	162 49.5	42		0	82	0	82	0	0	0	82
E01	6/25/05	56 20.0	167 38.9	69		244	326	0	570	0	0	0	570
E02	6/25/05	56 20.7	167 2.1	60		160	160	400	719	80	0	80	799
E03	6/19/05	56 20.2	166 24.9	55		82	247	247	576	0	0	0	576
E04	6/19/05	56 20.1	165 48.6	48		152	228	456	836	0	0	0	836
E05	6/14/05	56 20.1	165 12.2	45		0	78	0	78	0	0	0	78
E06	6/14/05	56 20.2	164 35.1			164	0	0	164	0	0	0	164
E07	6/9/05	56 20.6	163 57.8	45		82	0	82	163	0	0	0	163

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
E08	6/9/05	56 19.8	163 24.7	45		0	160	0	160	0	0	0	160
E18	6/26/05	56 20.3	168 13.8	81		776	233	155	1165	0	0	0	1165
E20	6/29/05	56 25.5	169 29.5	56		77	77	77	232	0	0	0	232
E21	6/29/05	56 20.2	170 3.1	57		459	153	153	764	0	0	0	764
E22	7/8/05	56 20.2	170 41.5	65		566	243	324	1133	0	81	81	1213
F01	6/24/05	56 40.0	167 40.4	52		80	80	160	319	0	0	0	319
F02	6/24/05	56 40.1	167 4.1	50		232	155	155	542	0	0	0	542
F03	6/19/05	56 40.3	166 25.5	44		477	159	159	795	0	0	0	795
F04	6/19/05	56 40.1	165 51.5	42		0	75	0	75	0	0	0	75
F07	6/10/05	56 40.3	164 1.0	39		77	0	154	232	0	0	0	232
F08	6/9/05	56 39.8	163 22.9	39		0	158	79	237	0	0	0	237
F11	6/5/05	56 39.8	161 36.6	48		148	0	0	148	0	0	0	148
F18	6/26/05	56 40.1	168 17.8	57		401	160	481	1042	0	0	0	1042
F19	6/26/05	56 49.9	168 36.6	51		312	234	623	1169	78	0	78	1247
F19	6/26/05	56 40.4	168 54.6	53		1059	9453	29348	39860	37664	87311	124975	164835
F20	6/26/05	56 49.8	169 18.2	42		117	468	5612	6196	13092	21149	34240	40437
F21	6/29/05	56 50.0	169 54.9	38		124	124	0	248	0	0	0	248
F21	6/29/05	56 40.5	170 6.8	51		77	231	616	923	0	0	0	923
F22	7/4/05	56 41.3	170 43.1	60		243	324	162	728	0	0	0	728
F24	7/8/05	56 40.4	171 58.5	67		593	0	74	667	0	0	0	667
G01	6/24/05	56 60.0	167 42.4	40		158	474	237	870	0	0	0	870
G02	6/24/05	56 59.9	167 5.4	38		0	0	80	80	0	0	0	80
G03	6/20/05	56 59.8	166 28.5	38		326	163	245	734	0	82	82	816
G04	6/20/05	56 58.1	165 50.5	38		78	0	0	78	0	0	0	78
G05	6/14/05	56 59.9	165 13.1	37		0	0	86	86	0	0	0	86
G10	6/7/05	56 59.5	162 10.0	31		76	0	0	76	0	0	0	76
G11	6/5/05	57 0.2	161 34.8	36		81	0	0	81	0	0	0	81
G12	6/5/05	56 59.5	160 57.2	34		78	0	0	78	0	0	0	78
G18	6/26/05	56 59.0	168 20.2	43		106	212	319	637	0	0	0	637
G19	6/26/05	56 59.6	168 56.9	42		0	137	0	137	137	137	273	410
G20	6/29/05	56 59.9	169 33.0	31		154	154	0	307	0	154	154	461
G20	6/26/05	57 9.6	169 19.7	34		315	1261	1051	2628	420	526	946	3574
G21	6/29/05	57 9.6	169 53.3	26		0	0	0	0	82	0	82	82

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
G22	7/4/05	56 59.9	170 46.9	51		0	465	1239	1704	0	0	0	1704
G22	6/29/05	56 50.2	170 28.6	54		156	78	312	546	0	0	0	546
G23	7/4/05	57 0.7	171 24.2	57		1512	336	1344	3191	168	0	168	3359
G25	7/8/05	57 0.1	172 39.2	62		476	79	0	555	0	0	0	555
G26	7/9/05	57 0.3	173 15.4	76		80	80	0	161	0	0	0	161
H01	6/24/05	57 19.5	167 44.6	38		232	1314	1314	2861	77	232	309	3170
H02	6/24/05	57 19.8	167 7.0	37		160	160	160	480	0	0	0	480
H03	6/20/05	57 20.2	166 28.8	36		577	115	346	1039	0	0	0	1039
H04	6/20/05	57 20.2	165 52.1	36		79	79	79	237	0	0	0	237
H05	6/13/05	57 20.0	165 13.8	35		0	78	0	78	0	0	0	78
H06	6/13/05	57 20.0	164 37.2			120	120	240	480	0	0	0	480
H13	6/4/05	57 19.4	160 18.0	31		77	0	0	77	0	0	0	77
H18	6/27/05	57 19.4	168 22.9	38		540	3706	463	4710	386	77	463	5173
H19	6/27/05	57 29.7	168 45.0	37		3249	27620	9748	40617	8013	2003	10017	50634
H19	6/26/05	57 19.9	168 59.3	37		483	7086	81	7650	161	0	161	7811
H19	6/27/05	57 10.0	168 38.4	40		79	396	396	872	0	0	0	872
H20	6/29/05	57 20.8	169 35.0	34		321	2489	482	3292	161	161	321	3613
H20	6/30/05	57 29.7	169 21.7	37		82	327	327	735	408	163	571	1306
H22	7/4/05	57 19.9	170 51.7	44		722	401	0	1123	160	0	160	1283
H23	7/4/05	57 20.3	171 28.4	53		1620	1620	2062	5302	6186	0	6186	11489
H24	7/9/05	57 19.9	172 5.9	57		2368	327	163	2858	82	0	82	2940
H26	7/9/05	57 21.7	173 20.0	65		1007	0	0	1007	0	0	0	1007
I01	6/24/05	57 40.0	167 46.0	36		409	19035	202280	221724	51020	84889	135910	357634
I02	6/24/05	57 40.1	167 7.4	36		1125	1286	482	2893	80	80	161	3053
I03	6/20/05	57 40.1	166 30.6	34		247	82	0	329	0	0	0	329
I04	6/20/05	57 40.4	165 53.2	33		1071	612	153	1835	0	0	0	1835
I06	6/13/05	57 40.3	164 37.2			0	81	0	81	0	0	0	81
I18	6/27/05	57 39.8	168 23.7	37		461	692	2306	3459	231	807	1038	4497
I19	6/30/05	57 41.3	169 2.1	36		413	1074	24536	26024	18496	22018	40514	66538
I20	6/30/05	57 39.5	169 39.8	37		160	10234	5277	15670	959	80	1039	16710
I21	6/30/05	57 49.3	169 59.0	38		2079	14639	30753	47472	70201	30888	101089	148561
I21	6/30/05	57 30.2	170 0.5	33		128	3708	895	4731	0	0	0	4731
I21	6/30/05	57 40.0	170 15.6	36		668	3264	668	4599	148	74	223	4822

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
I22	7/4/05	57 39.4	170 53.7	45		324	23331	4861	28515	176	0	176	28691
I22	6/30/05	57 30.4	170 35.6	39		370	5851	1333	7554	0	0	0	7554
I22	7/1/05	57 49.8	170 36.5	41		536	2835	10624	13996	53924	13612	67536	81532
I23	7/4/05	57 39.2	171 32.3	53		3755	976	2779	7509	6984	300	7284	14794
I24	7/9/05	57 40.1	172 9.5	56		2429	521	347	3297	0	0	0	3297
I25	7/9/05	57 40.0	172 47.8	63		1686	94	0	1779	0	0	0	1779
I26	7/9/05	57 40.1	173 23.4	78		0	0	75	75	0	0	0	75
J01	6/24/05	57 59.4	167 48.3	35		239	557	4617	5414	557	478	1035	6448
J02	6/24/05	58 0.1	167 10.3	33		161	161	242	564	0	0	0	564
J03	6/20/05	58 0.1	166 31.5			708	1022	79	1809	0	157	157	1966
J04	6/20/05	58 0.3	165 54.5	28		0	79	236	314	0	0	0	314
J18	6/23/05	57 59.9	168 26.1	36		636	715	34892	36242	1776	3774	5551	41793
J19	6/23/05	57 59.3	169 4.9	36		1674	1913	47936	51522	33830	25579	59408	110931
J19	6/23/05	57 50.1	168 45.9	37		3093	16577	14597	34267	21972	845	22817	57084
J20	6/30/05	57 50.9	169 23.2	34		812	3443	65794	70048	76374	33096	109470	179518
J20	7/1/05	57 59.8	169 41.7	37		5730	11937	84584	102251	84333	49436	133769	236020
J21	7/1/05	57 59.7	170 20.8	39		2587	19332	15159	37078	151588	33349	184937	222015
J22	7/4/05	57 59.7	170 57.6	46		3986	33885	8471	46343	156266	31253	187519	233861
J23	7/4/05	58 0.2	171 36.0	52		5241	8910	4555	18706	271298	26015	297313	316019
J24	7/10/05	58 0.5	172 15.0	55		2050	512	85	2648	85	0	85	2733
J25	7/10/05	58 0.4	172 51.7	58		1746	2734	380	4860	13781	0	13781	18641
J26	7/9/05	58 0.1	173 28.5	62		1077	154	0	1231	0	0	0	1231
K01	6/21/05	58 20.1	167 50.0	31		0	80	321	401	0	321	321	721
K02	6/21/05	58 20.4	167 11.1	27		0	0	309	309	0	0	0	309
K03	6/12/05	58 19.9	166 33.4	25		0	0	78	78	0	0	0	78
K18	6/23/05	58 19.8	168 29.0	34		79	79	4805	4963	0	1497	1497	6460
K19	6/23/05	58 19.8	169 7.5	35		988	1482	96963	99433	5012	15035	20046	119480
K20	7/1/05	58 20.7	169 44.5	36		3979	7958	22718	34655	19358	8151	27508	62163
K21	7/1/05	58 20.1	170 23.3	39		1642	7564	215142	224348	307295	365827	673122	897470
K22	7/3/05	58 21.2	171 1.0	44		815	36694	6523	44033	24457	15285	39742	83775
K23	7/3/05	58 20.4	171 39.1	51		1589	4660	3071	9320	212	106	318	9638
K24	7/10/05	58 20.1	172 18.4	54		1406	4570	1670	7646	254945	91395	346341	353986
K25	7/10/05	58 20.0	172 55.5	58		1150	115	115	1380	0	0	0	1380

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

Station	Date	N. Lat.	W. Long	Fathoms	Males				Females			GRAND TOTAL
					Large	Medium	Small	Total	Large	Small	Total	
K26	7/22/05	58 20.2	173 34.4	62	1617	539	0	2156	0	0	0	2156
L01	6/21/05	58 39.9	167 52.3	24	0	0	80	80	0	0	0	80
L18	6/23/05	58 40.5	168 30.1	27	0	0	79	79	0	0	0	79
L19	6/23/05	58 40.1	169 9.0	33	236	472	4485	5194	79	2518	2597	7791
L20	7/1/05	58 40.1	169 47.7	34	4260	3234	21749	29243	3692	6153	9845	39088
L21	7/1/05	58 40.7	170 26.3	39	1740	7288	92374	101402	142123	213184	355307	456709
L22	7/3/05	58 40.1	171 5.1	44	2143	46069	14999	63211	37138	8124	45263	108474
L23	7/3/05	58 40.0	171 43.1	49	1057	12302	2189	15547	151	75	226	15774
L24	7/10/05	58 40.2	172 21.0	53	1513	4895	2047	8454	1780	1246	3026	11480
L25	7/10/05	58 40.1	172 60.0	60	922	845	384	2151	34142	2382	36524	38675
L26	7/22/05	58 40.0	173 38.6	68	74	148	0	222	1036	148	1184	1406
L27	7/22/05	58 40.0	174 16.2	83	76	0	0	76	76	0	76	152
M18	6/23/05	58 60.0	168 31.4	24	0	0	154	154	0	77	77	231
M19	6/23/05	59 0.0	169 10.8	28	0	0	159	159	0	159	159	318
M20	7/1/05	59 0.6	169 50.0	32	1514	1514	15086	18113	176	8621	8796	26910
M21	7/1/05	59 0.2	170 28.4	37	6534	15766	43748	66048	12068	29417	41485	107533
M22	7/3/05	58 59.9	171 8.5	40	272	10073	8167	18512	2435	1522	3956	22469
M23	7/3/05	58 60.0	171 47.3	45	649	20128	2164	22942	649	433	1082	24023
M24	7/10/05	58 58.8	172 27.3	52	166	916	749	1831	0	83	83	1914
M25	7/10/05	59 0.2	173 4.9	56	1668	2047	2350	6064	38580	10643	49223	55287
M26	7/22/05	58 59.8	173 43.5	63	2534	2333	2595	7461	57109	1503	58612	66074
M27	7/21/05	58 59.9	174 23.3	67	0	0	77	77	77	0	77	153
M28	7/21/05	58 59.8	175 0.9	69	75	75	0	150	0	0	0	150
N19	6/22/05	59 20.5	169 15.1	25	0	0	867	867	0	630	630	1497
N20	7/1/05	59 21.1	169 53.3	32	0	78	1569	1647	78	1883	1961	3608
N21	7/2/05	59 20.0	170 32.1	36	231	16411	27506	44148	4103	8489	12593	56741
N22	7/3/05	59 19.2	171 11.0	39	1485	59401	49006	109892	31298	5921	37219	147111
N23	7/3/05	59 19.9	171 50.2	42	1179	17095	30063	48337	19450	1768	21218	69555
N24	7/10/05	59 19.1	172 29.1	46	255	510	425	1189	425	425	850	2039
N25	7/10/05	59 20.1	173 9.3	53	311	777	311	1398	3184	1165	4349	5747
N26	7/21/05	59 20.1	173 48.4	59	3708	6428	19212	29348	160601	154653	315254	344602
N27	7/21/05	59 19.6	174 27.0	64	2910	2014	1679	6603	7946	0	7946	14549
N28	7/21/05	59 20.0	175 5.7	72	4095	0	0	4095	0	0	0	4095

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
O19	6/22/05	59 40.2	169 16.6	24		0	0	473	473	0	315	315	789
O20	7/2/05	59 40.0	169 54.8	30		0	79	1179	1258	0	865	865	2122
O21	7/2/05	59 40.1	170 35.1	35		0	9055	93943	102998	4527	167512	172040	275038
O22	7/3/05	59 39.8	171 15.2	38		0	19369	45193	64562	81449	6981	88430	152992
O23	7/11/05	59 49.8	172 13.8	39		593	5679	276473	282746	13703	630343	644046	926792
O23	7/3/05	59 40.0	171 54.2	42		0	8587	20854	29441	17991	6951	24943	54383
O24	7/11/05	59 40.3	172 32.7	44		704	7840	170691	179235	228687	132958	361645	540879
O25	7/11/05	59 30.4	172 54.4	49		782	3043	6346	10171	20372	11794	32167	42337
O25	7/17/05	59 50.0	173 33.9	50		3532	2649	7705	13886	9113	9967	19080	32966
O25	7/11/05	59 40.1	173 14.0	51		1756	1375	2826	5957	3271	4907	8178	14135
O25	7/11/05	59 49.9	172 55.2	43		0	7212	197120	204332	94807	102933	197740	402072
O26	7/17/05	59 39.9	173 50.9	55		4878	4710	505	10092	0	0	0	10092
O26	7/11/05	59 30.2	173 29.8	54		1654	2206	1103	4963	1733	236	1969	6932
O27	7/17/05	59 39.9	174 27.0	61		4859	4859	9086	18804	191804	246605	438409	457213
O28	7/17/05	59 40.1	175 5.8	67		6907	2763	1700	11370	23149	2723	25872	37242
O30	7/20/05	59 39.8	176 32.0	72		0	0	0	0	77	0	77	77
O31	7/21/05	59 40.6	177 8.4	90		0	0	0	0	0	86	86	86
P19	6/22/05	59 59.7	169 19.6	23		0	156	546	702	0	156	156	858
P20	7/2/05	59 59.8	169 57.9	28		0	3278	2541	5819	164	246	410	6229
P21	7/2/05	59 59.8	170 38.1	34		0	11455	30866	42321	1910	1273	3183	45504
P22	7/2/05	60 0.3	171 18.0	36		0	6169	20048	26216	22876	0	22876	49092
P23	7/11/05	60 9.7	172 18.4	30		0	226	1696	1922	0	1469	1469	3391
P23	7/2/05	60 0.5	171 57.5	34		0	305	1067	1372	76	229	305	1677
P24	7/11/05	59 59.3	172 34.8	34		0	1837	6177	8014	668	8598	9266	17280
P24	7/11/05	60 9.7	172 59.2	31		0	304	1674	1979	228	609	837	2816
P25	7/11/05	60 0.3	173 18.9	39		964	1928	8676	11568	5835	10035	15870	27438
P26	7/17/05	60 7.6	173 46.7	46		1496	5319	123618	130433	158447	443653	602100	732534
P26	7/17/05	60 0.2	173 56.5	51		5434	6536	5749	17718	2677	4095	6772	24490
P27	7/17/05	60 9.6	174 21.5	53		3054	1985	4581	9619	687	3130	3817	13436
P27	7/17/05	59 60.0	174 36.1	57		1593	1441	379	3413	76	152	228	3641
P27	7/17/05	59 50.4	174 15.0	56		3199	4570	1142	8911	533	457	990	9901
P28	7/18/05	60 0.2	175 16.0	63		761	761	152	1674	685	76	761	2436
P29	7/19/05	60 0.3	175 55.9	69		1128	226	226	1579	226	338	564	2142

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
P30	7/20/05	60 0.2	176 43.0	75		2375	689	153	3217	77	0	77	3294
P31	7/20/05	60 0.3	177 12.6	73		174	0	0	174	0	0	0	174
Q19	6/22/05	60 20.1	169 20.1	22		0	0	313	313	0	78	78	391
Q20	7/2/05	60 19.6	170 0.4	27		0	5260	28323	33583	2840	1893	4733	38316
Q21	7/2/05	60 19.9	170 39.1	32		0	10866	29881	40747	3944	464	4408	45156
Q22	7/2/05	60 20.2	171 21.3	35		0	3889	11234	15123	15444	483	15927	31050
Q23	7/12/05	60 19.6	172 3.8	30		77	0	309	387	77	0	77	464
Q26	7/17/05	60 19.9	174 4.2	48		1653	5258	470378	477289	63461	539416	602877	1080166
Q27	7/18/05	60 20.2	174 43.7	54		661	661	330	1652	0	83	83	1734
Q28	7/18/05	60 20.5	175 23.2	59		450	225	0	674	150	0	150	824
Q29	7/19/05	60 20.1	176 3.4	65		847	462	462	1771	7905	2515	10420	12191
Q30	7/19/05	60 20.8	176 43.4	73		2057	457	686	3200	19269	3953	23222	26422
R20	7/12/05	60 40.1	170 4.2	25		312	8740	42141	51193	4032	576	4608	55801
R21	7/12/05	60 40.2	170 46.1	30		0	4381	46279	50661	27086	437	27523	78183
R22	7/12/05	60 39.8	171 25.0	32		0	1586	20909	22495	13090	1671	14762	37257
R23	7/12/05	60 39.9	172 7.2	32		0	578	22545	23123	23152	12862	36015	59138
R24	7/16/05	60 40.1	172 45.3	22		0	236	3068	3304	1062	590	1652	4957
R25	7/16/05	60 40.2	173 28.2	34		0	82	742	825	0	412	412	1237
R26	7/16/05	60 40.0	174 7.8	46		229	2978	18156	21363	33325	667	33992	55355
R27	7/18/05	60 39.6	174 49.4	51		1402	165	0	1567	82	82	165	1732
R28	7/18/05	60 40.4	175 27.2	57		376	150	226	752	1128	978	2106	2858
R29	7/19/05	60 40.3	176 12.1	63		997	1150	690	2836	1456	1073	2530	5366
R30	7/19/05	60 40.1	176 47.3	68		2786	1506	33285	37577	49354	7051	56405	93982
R31	7/20/05	60 40.0	177 30.9	78		854	427	85	1367	342	85	427	1794
S20	7/12/05	60 59.5	170 4.8	24		0	1861	93046	94907	5435	988	6423	101330
S21	7/12/05	61 0.2	170 48.3	28		0	1762	53751	55514	16090	4425	20515	76029
S22	7/12/05	61 0.1	171 29.3	31		0	521	29706	30227	49584	5613	55198	85425
S23	7/12/05	61 0.1	172 8.4	33		0	0	66483	66483	46049	17607	63656	130139
S24	7/16/05	61 0.0	172 51.1	34		0	2375	118729	121103	19542	6254	25796	146899
S25	7/16/05	61 0.6	173 30.6	40		0	0	440324	440324	108405	24090	132495	572819
S26	7/16/05	61 0.2	174 9.7	44		0	22541	298662	321202	149273	25348	174622	495824
S27	7/18/05	61 1.4	174 53.4	48		2654	25567	213488	241708	248536	8876	257412	499121
S28	7/18/05	60 60.0	175 33.2	54		1158	695	849	2702	386	1930	2316	5018

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
S29	7/18/05	61 0.2	176 16.2	60		3244	1132	1207	5583	528	1735	2263	7847
S30	7/19/05	60 60.0	176 57.7	65		1995	831	416	3242	831	166	998	4240
S31	7/19/05	60 59.4	177 37.4	72		1989	663	414	3067	2155	1078	3233	6300
T20	7/12/05	61 19.6	170 6.6	24		0	3841	86695	90536	9456	5475	14931	105467
T21	7/13/05	61 20.2	170 48.3	25		0	2447	183503	185949	47809	13342	61151	247100
T22	7/13/05	61 20.3	171 30.5	28		0	801	103302	104103	42429	13624	56053	160156
T23	7/13/05	61 20.3	172 10.8	33		0	0	83949	83949	38819	10352	49171	133120
T24	7/16/05	61 19.6	172 55.5	36		0	2838	248290	251127	76939	49156	126095	377222
T25	7/16/05	61 20.0	173 36.7	38		0	0	187970	187970	44985	15676	60661	248631
T26	7/16/05	61 19.9	174 20.5	41		0	6204	142687	148890	75005	15910	90915	239805
T27	7/18/05	61 19.5	174 59.9	46		862	10083	227874	238819	148111	21543	169655	408474
T28	7/18/05	61 20.0	175 37.8	51		526	7634	77123	85283	125165	7823	132988	218270
T29	7/19/05	61 19.4	176 17.9	56		1384	1466	1466	4316	489	1140	1629	5944
T30	7/19/05	61 19.6	176 60.0	62		5014	2173	1421	8608	669	1086	1755	10363
U20	7/13/05	61 40.2	170 10.0	23		0	0	357254	357254	55717	222868	278585	635839
U21	7/13/05	61 39.8	170 51.7	25		0	2037	202706	204744	51414	95737	147151	351895
U22	7/13/05	61 39.9	171 32.4	28		0	794	150021	150814	44249	55628	99877	250691
U23	7/13/05	61 40.0	172 18.7	32		0	0	98965	98965	20511	28488	48999	147963
U24	7/16/05	61 39.6	173 6.8	34		0	0	290029	290029	45842	145614	191456	481485
U25	7/15/05	61 40.2	173 39.3	36		0	0	122292	122292	36590	144209	180799	303092
U26	7/15/05	61 40.1	174 26.1	40		0	0	40088	40088	13484	16739	30222	70310
U27	7/15/05	61 40.1	175 3.9	45		75	150	40072	40297	22594	17942	40536	80833
U28	7/15/05	61 40.6	175 47.1	50		411	7800	36538	44749	13231	4841	18072	62820
U29	7/19/05	61 40.0	176 28.5	56		842	9327	22649	32818	102443	9850	112293	145112
V22	7/13/05	61 59.8	171 35.8	26		0	0	422759	422759	13729	267714	281443	704202
V23	7/13/05	62 0.0	172 19.4	28		0	0	178542	178542	11249	47810	59060	237601
V24	7/14/05	62 0.3	173 2.6	30		0	1391	87655	89046	26667	42223	68890	157936
V25	7/14/05	62 0.1	173 44.0	32		0	0	105294	105294	14804	60448	75252	180546
V26	7/15/05	61 59.9	174 29.9	38		0	0	22526	22526	4467	15355	19822	42348
V27	7/15/05	61 59.8	175 10.0	43		0	76	58374	58450	11182	44727	55909	114359
V28	7/15/05	61 59.7	175 48.3	48		0	0	38757	38757	27690	14858	42548	81305
W22	7/13/05	62 19.1	171 42.4	24		0	0	269437	269437	3265	274240	277505	546941
W23	7/14/05	62 19.4	172 25.5	27		0	0	229752	229752	19489	107937	127426	357178

Table 10. Summary of crab density by tow (# per square nmi) for Snow Crab. *(Chionoecetes opilio)*

Station	Date	N. Lat.	W. Long	Fathoms	Males				Females			GRAND TOTAL
					Large	Medium	Small	Total	Large	Small	Total	
W24	7/14/05	62 20.3	173 7.9	31	0	0	177522	177522	17534	84747	102281	279802
W25	7/14/05	62 20.2	173 51.5	33	0	0	105216	105216	10353	22945	33299	138514
W26	7/15/05	62 19.8	174 35.0	37	0	0	43799	43799	10056	27981	38037	81836
W27	7/15/05	62 19.8	175 16.8	41	75	0	20787	20862	3534	8128	11662	32524
X23	7/14/05	62 40.0	172 24.7	27	0	0	277793	277793	1660	157733	159393	437187
X24	7/14/05	62 41.0	173 10.2	33	0	0	282884	282884	26073	83108	109181	392065
X25	7/14/05	62 40.3	173 54.3	37	0	0	48257	48257	6448	25570	32018	80275
X26	7/15/05	62 41.1	174 36.9	38	0	0	67697	67697	6807	20422	27230	94927
Y24	7/14/05	63 0.3	173 13.5	33	0	0	117800	117800	17154	62898	80052	197852
Y25	7/14/05	63 0.3	173 54.9	39	0	0	48267	48267	8687	16288	24975	73242

NOTE: Minimum carapace sizes used are: Large Males > 4.0 in; Medium Males = 3.1 to 4.0 in; Large Females > 2.0 in.

Table 11. Summary of crab density by tow (# per square nmi) for Hair Crab. *(Erimacrus isenbeckii)*

						Males				Females			GRAND TOTAL
Station	Date	N. Lat.	W. Long	Fathoms		Large	Medium	Small	Total	Large	Small	Total	
B08	6/9/05	55 20.1	163 24.9	25		0	616	0	616	0	385	385	1001
C09	6/8/05	55 40.4	162 50.8	26		0	90	0	90	0	0	0	90
D18	6/25/05	56 0.7	168 14.0	80		0	0	155	155	0	0	0	155
E12	6/5/05	56 19.8	161 0.5	27		78	0	0	78	0	0	0	78
E20	6/29/05	56 25.5	169 29.5	56		0	0	0	0	232	0	232	232
E21	6/29/05	56 20.2	170 3.1	57		76	0	0	76	0	0	0	76
F11	6/5/05	56 39.8	161 36.6	48		0	148	0	148	0	0	0	148
F12	6/5/05	56 40.6	160 59.3	34		0	0	78	78	0	0	0	78
F21	6/29/05	56 50.0	169 54.9	38		0	0	0	0	124	0	124	124
G12	6/5/05	56 59.5	160 57.2	34		0	0	78	78	0	0	0	78
G13	6/4/05	57 0.1	160 20.5	33		0	420	0	420	0	0	0	420
G14	6/4/05	56 59.7	159 41.0	27		0	479	0	479	0	80	80	559
G20	6/29/05	56 59.9	169 33.0	31		0	0	0	0	77	0	77	77
G21	6/29/05	56 59.9	170 10.7	36		0	77	0	77	77	0	77	153
G22	6/30/05	57 6.4	170 33.5	36		159	79	0	238	0	0	0	238
G26	7/9/05	57 0.3	173 15.4	76		0	80	0	80	0	0	0	80
H01	6/24/05	57 19.5	167 44.6	38		0	0	0	0	77	0	77	77
H11	6/5/05	57 20.1	161 34.0	28		0	81	0	81	0	0	0	81
H12	6/5/05	57 19.8	160 56.5	31		0	0	0	0	79	0	79	79
H13	6/4/05	57 19.4	160 18.0	31		0	77	0	77	0	0	0	77
H19	6/27/05	57 29.7	168 45.0	37		0	0	0	0	81	0	81	81
I06	6/13/05	57 40.3	164 37.2			81	0	0	81	0	0	0	81
I12	6/6/05	57 40.0	160 53.7	30		80	80	0	161	0	0	0	161
I13	6/4/05	57 39.9	160 16.2	28		0	79	0	79	0	0	0	79
J04	6/20/05	58 0.3	165 54.5	28		0	0	0	0	79	0	79	79
J05	6/13/05	58 0.1	165 15.4	26		0	0	0	0	80	0	80	80
K02	6/21/05	58 20.4	167 11.1	27		0	0	0	0	77	0	77	77
L01	6/21/05	58 39.9	167 52.3	24		0	80	0	80	0	0	0	80
L19	6/23/05	58 40.1	169 9.0	33		79	0	0	79	0	0	0	79
M18	6/23/05	58 60.0	168 31.4	24		0	0	0	0	77	0	77	77
M19	6/23/05	59 0.0	169 10.8	28		0	0	0	0	318	0	318	318
N23	7/3/05	59 19.9	171 50.2	42		0	0	0	0	75	0	75	75
O19	6/22/05	59 40.2	169 16.6	24		79	0	0	79	0	0	0	79

Table 11. Summary of crab density by tow (# per square nmi) for Hair Crab. *(Erimacrus isenbeckii)*

Station	Date	N. Lat.	W. Long	Fathoms	Males				Females			GRAND TOTAL
					Large	Medium	Small	Total	Large	Small	Total	
O20	7/2/05	59 40.0	169 54.8	30	0	0	0	0	79	0	79	79
P19	6/22/05	59 59.7	169 19.6	23	78	0	0	78	234	0	234	312
Q19	6/22/05	60 20.1	169 20.1	22	78	0	0	78	0	0	0	78
Q20	7/2/05	60 19.6	170 0.4	27	0	0	0	0	79	0	79	79

NOTE: Minimum carapace sizes used are: Large Males > 3.25 in; Medium Males = 2.0 to 3.25 in; Large Females > 2.6 in.