

BERING SEA SNOW CRAB FISHERY, 1998
REPORT TO THE ALASKA BOARD OF FISHERIES

by

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BERING SEA SNOW CRAB MANAGEMENT AREA

Description of Area

The Bering Sea District of Statistical Area J includes all waters of the Bering Sea north of the latitude of Cape Sarichef at 54°36' N. lat. and east of the U.S.-Russian Convention Line of 1867. This district is divided into the Eastern and Western Subdistricts by a line at 173° W. long. The Eastern subdistrict is further divided at the latitude of Cape Romanzof and 168° W. long. into the Norton Sound section to the east and the General Section to the west (Figure 1).

Historic Background

The first commercial landings of *Chionoecetes opilio* Tanner crabs, commonly referred to as snow crabs, were first made during 1977, incidental to the harvest of *C. bairdi* Tanner crabs. In 1981, a reduction in *C. bairdi* harvests resulted in increased snow crab harvests. The harvest of snow crabs fell from 52.7 million pounds in 1981 to 26.1 million by 1983. In 1984, the harvest increased slightly, and in 1985, the fishery produced a 66 million pound harvest. In 1986 the harvest was 97.9 million pounds. The commercial catch continued to increase annually to a high of 328.6 million pounds in 1991. Although stocks began to decline, the harvest of snow crabs remained over 100 million pounds through the 1994 season. In 1996 the harvest was 65.7 million pounds, the lowest in the preceding eleven seasons. In 1997, the guideline harvest level (GHL) more than doubled to 117 million pounds and the fleet harvested 120 million pounds (Figure 2).

1998 Fishery

The 1998 snow crab fishery opened by regulation at 12:00 noon on January 15, 1998. A total of 229 vessels, including 12 catcher processors, registered and received tank inspections in King Cove, Akutan, Dutch Harbor and St. Paul Island. An additional 11 floating processors also registered to purchase and process crabs on the grounds during the fishery. In 1997, 226 vessels, including 12 catcher processors registered and participated along with 10 floating processors.

The preliminary total harvest for the 1998 snow crab fishery was 243.3 million pounds from 1,767 deliveries (Table 1). An addition to 8.9 million pounds of snow crabs were harvested by 21 vessels in the Community Development Quota (CDQ) fishery which took place after the open access fishery. The regular or open access fishery was closed by emergency order at 12:00 noon on March 20, 1998, one day sooner than in 1997 (Tables 2 and 3). The closure announcement was released to the fleet over single side band radio at 12:00 noon on March 11.

The 1997 National Marine Fisheries Service (NMFS) summer trawl survey of the Bering Sea estimated large male snow crabs (four inches and greater in carapace width) at 306 million animals, a 78% increase over numbers observed in 1996. According to the 1997 survey, 92% of the large male population was located in the Eastern Subdistrict (east of 173° W. long.). At the established exploitation rate of 58%, a 234.2 million pound GHL was established for the 1998 season; 214.4 million pounds in the Eastern Subdistrict and 19.8 million pounds in the Western Subdistrict. The

1997 GHL was 117 million pounds; 102 million pounds in the Eastern Subdistrict, and 15 million pounds in the Western Subdistrict.

The 1998 season marked the first year a portion (3.5%) of the total commercial catch was set aside for harvest by CDQ groups. A total of 8.2 million pounds was subtracted from the total GHL and available for CDQ harvest following the open access fishery.

Regulation changes made in the spring of 1996 extended the tank inspection window prior to the fishery from 24 to 48 hours in the ports of Dutch Harbor, Akutan and King Cove. This change was made to vessels, at those locations, additional time to reach the fishing grounds. The tank inspection window at the Pribilof Islands remained 24 hours prior to the start of the fishery. Pre-tank inspections of holding tanks and fishing gear were available to all vessels beginning on January 9 in Dutch Harbor and on January 10 and 11 in King Cove and Akutan respectively. Pre-tank inspections, prior to the regular tank inspections, were intended to expedite the normal tank inspection process. Pre-tank inspections were not available in the Pribilof Islands due to the limited size of the St. Paul Island harbor.

A total of 145 vessels received tank inspections in Dutch Harbor while 44, 19 and 21 vessels were inspected at King Cove, St. Paul and Akutan, respectively. A price dispute between vessel operators and processors kept most fishers off the fishing grounds until a firm price agreement was reached. As a result, fishers did not begin setting gear until 8:00 a.m. on January 17. Due to this delay in departure for the fishing grounds, the majority of the fleet did not take advantage of the pre-tank inspection process and received a tank and gear inspection during the regular tank inspection window.

The 1998 snow crab fishery was managed by weekly processor reports. Over the course of this nine-week fishery the weekly harvest from the entire district ranged from a high of 39.9 million pounds during the first full week of fishing to a low of 11.2 million pounds during the final week of the fishery. The overall weekly average harvest for the season for the Bering Sea was 27 million pounds. The number of deliveries per week for the Bering Sea ranged from 247 during the first full week of fishing to 139 in the final week of the fishery.

In the Eastern Subdistrict, the weekly harvest ranged from 29.9 million pounds in the first full week of fishing to 9.6 million in the final week of the season (Figure 3). The total season harvest for this area was 232,485,209 pounds from 1,724 landings. This was 95.5% of the 1998 season total and came from six statistical areas south and east of the Pribilof Islands. In the Western Subdistrict, the total season harvest was 10,856,172 pounds from 88 deliveries. This represented approximately 4.5% of the season total and came from four statistical areas due west of the Pribilof Islands at the 173° W. long. subdistrict boundary line. The weekly harvest from this area ranged from less than 200,000 pounds in the first full week of fishing to 3.4 million pounds in the next to last week of fishing. Table 4 summarizes the 1998 snow crab harvest, by statistical area

Total 1998 fishery catch per pot pull (CPUE), in numbers of four inch and larger crabs, was 207. This compares to a season total CPUE of 133 in 1997 and 102 in 1996 (Table 1). In the Eastern Subdistrict, CPUE peaked at 304 during the first full week of fishing and declined to 148, 151 and 152 in the final three weeks of the season, respectively. In the Western Subdistrict, CPUE peaked at 308 during the sixth week of the fishery and declined to 226 by the conclusion of the fishery.

Overall CPUE for the 1998 fishery was 205 in the east and 242 in the west. This compares to 1997 season average of 136 in the east and 110 in the west (Table 5). Figure 3 summarizes weekly harvest and CPUE, by Subdistrict, for the 1998 fishery.

Preliminary analysis of observer and dockside sampling data indicates an average weight of 1.3 pounds for crabs landed during the 1998 fishery. New-shell crabs made up 97% of the 1998 harvest. In 1997, crabs averaged 1.2 pounds and the catch was composed of 96.5% new-shell crabs (Table 1).

Weather in the Bering Sea throughout most of the 1998 fishery was extremely mild. Prevailing winds from the north moved sea ice approximately 25 miles south of St. Paul Island by mid February. Strong northerly currents and sea water temperatures, as warm as 2°C at the ice edge, prevented ice from progressing further south. By the end of March, sea ice had moved well north of St. Paul Island. As a result, weather and sea ice conditions did not have a significant impact on the 1998 season. Wind and sea conditions at the time of the closure were unusually calm and not a factor in preventing vessels from arriving at their processing locations in the time allowed by regulation. Following the closure, fishermen had 10 days to remove their gear from the fishing grounds. While most vessels delivered to processors on the grounds, or shore processors in the Pribilof Islands or Dutch Harbor, six vessels checked out to processors in King Cove and four to processors in Kodiak.

A weak market for snow crabs during the 1998 season precluded the purchase of significant numbers of sub-four inch crab at most processing locations. Preliminary analysis of dockside sampling size frequency data indicates approximately 9.7% of the harvest was composed of sub-four inch crabs. This compares to 21% and 23% of sub-four inch crabs harvested during the 1997 and 1996 seasons, respectively.

Exvessel price for snow crabs harvested during the 1998 fishery ranged from \$0.54 per pound on the fishing grounds to as high as \$0.58 per pound at shore-side processors in Dutch Harbor and King Cove. Based on an estimated overall exvessel price of \$0.56 per pound, the 1998 snow crab fishery value is \$134.7 million. This compares to an exvessel value of \$0.79 per pound and an overall fishery value of \$92.6 million in 1997 (Table 2).

Status of stocks

Data from the 1997 NMFS Bering Sea trawl survey, indicated total abundance of large males (over four inches carapace width) at 306 million crabs, a 78% increase over numbers of large male crabs estimated from the 1996 survey. Small (78-101 mm) male crabs decreased by 45% while large females (>50 mm) showed no change in abundance from 1996. According to the 1997 survey, 91% of large male crabs were located east of the 173° W. long., the boundary line between the Eastern and Western Subdistricts. Last year, 87% of large male crabs were located east of 173° W. long. Survey results indicate the lack of very small (<77 mm) male crabs encountered in 1997 could signal possible declines in abundance in the near future (Stevens et al., 1998).

LITERATURE CITED

Stevens, B.G., R.S. Otto, J.A. Haaga, and R.A. MacIntosh. 1998. Report to Industry on the 1997 Eastern Bering Sea Crab Survey. Alaska Fisheries Science Center, AFSC Processed Report 98-07. 55p.

Table 1. Bering Sea commercial snow catch statistics by season, 1977/78-1998.

Year	Number of			Harvest ^a (pounds)	Pots Pulled	CPUE ^b	% New Shell	Average		Deadloss (pounds)
	Vessels	Landings	Crab ^a					Weight (pounds)	Width ^c (mm)	
1978/79	102	490	22,118,498	32,187,039	190,746	116	83.0	1.5	113.1	759,137
1979/80	134	597	25,286,777	39,572,668	255,102	99	90.0	1.6	118.1	228,345
1981	153	867	34,415,322	52,750,034	435,742	79	79.2	1.5	117	2,269,979
1982	122	803	24,089,562	29,355,374	469,091	51	78.0	1.2	109.4	1,092,655
1983 ^d	109	461	23,853,647	26,128,410	287,127	83	NA	1.1	NA	1,324,466
1984 ^d	52	367	24,009,935	26,813,074	173,591	138	78.0	1.1	105.4	798,795
1985 ^d	75	718	52,903,246	65,998,875	372,045	142	80.0	1.3	108	1,064,184
1986 ^d	88	992	76,499,123	97,984,539	543,744	141	73.7	1.3	109.5	1,378,533
1987 ^d	103	1,038	81,307,659	101,903,388	616,113	132	84.0	1.2	108.9	978,449
1988 ^d	171	1,285	105,716,337	135,354,637	776,907	136	71.2	1.3	109.5	3,260,020
1989 ^d	168	1,341	112,618,881	149,455,848	663,442	170	85.2	1.3	111.2	1,844,682
1990 ^d	189	1,565	128,977,638	161,821,350	911,613	141	97.4	1.3	109.1	1,796,664
1991 ^d	220	2,788	265,123,960	328,647,269	1,391,583	191	95.1	1.2	110.2	3,464,036
1992	250	2,763	227,376,582	315,302,034	1,281,796	177	97.6	1.4	111.7	2,325,852
1993	254	1,836	169,558,842	230,787,000	971,046	175	92.5	1.4	111.6	1,573,952
1994	273	1,293	114,779,014	149,775,765	716,524	160	93.1	1.3	110.4	1,799,323
1995	253	869	60,611,411	75,252,677	506,802	117	89.6	1.2	108.6	1,287,169
1996	234	766	52,912,823	65,712,797	520,651	102	75.8	1.2	107.5	1,333,014

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Table 1. (Page 2 of 2)

Year	Number of			Harvest ^a (pounds)	Pots Pulled	CPUE ^b	% New Shell	Average		Deadloss ^b (pounds)
	Vessels	Landings	Crab ^a					Weight (pounds)	Width ^d (mm)	
1997	226	1,127	99,975,539	119,543,024	754,140	133	96.5	1.2	107.3	2,351,555
1998 ^e	229	1,767	186,543,734	243,341,381	891,268	207	97.0	1.3	111.1	2,893,945

^aDeadloss included.

^bDefined as catch of legal crabs per pot pull.

^cSoutheastern and Pribilof subdistricts only 1978 to 1987.

^dPartial district and subdistrict closures, see Table 3

^eOpen access fishery only.

Table 2. Economic performance of the Bering Sea commercial snow crab fishery, 1979/80-1998.

Year	GHL ^a	Season Total ^{a,b}	Number of		Number of Pots		Exvessel Value	Season	
			Vessels	Landings	Registered ^c	Pulled		Total ^d	Length ^e
1979/80	N/A	39.3	134	597	35,503	255,102	\$0.21	\$82.50	307
1981	39.5-91.0	50.5	153	867	39,789	435,742	\$0.26	\$13.10	229
1982	16.0-22.0	28.3	122	803	35,522	469,091	\$0.73	\$20.70	167
1983 ^f	15.8	24.8	109	461	15,396	287,127	\$0.35	\$8.70	120
1984 ^f	49	26.0	52	367	12,493	173,591	\$0.30	\$7.80	320
1985 ^f	98	64.9	75	718	15,325	372,045	\$0.30	\$19.50	333
1986 ^f	57	96.6	88	992	13,750	543,744	\$0.60	\$60.00	252
1987 ^f	56.4	100.9	103	1,038	19,386	616,113	\$0.75	\$75.70	158
1988 ^f	110.7	130.8	171	1,285	38,765	776,907	\$0.77	\$100.70	120
1989 ^f	132	147.6	168	1,341	43,607	663,442	\$0.75	\$110.70	112
1990 ^f	139.8	160.0	189	1,565	46,440	911,613	\$0.64	\$102.30	148
1991 ^f	315	325.2	220	2,788	76,056	1,391,583	\$0.50	\$162.60	159
1992	333	313.0	250	2,763	77,858	1,281,796	\$0.50	\$156.50	97
1993	207.2	229.2	254	1,836	65,081	971,046	\$0.75	\$171.90	59
1994	105.8	148.0	273	1,293	54,837	716,524	\$1.30	\$192.40	45
1995	55.7	74.0	253	869	53,707	506,802	\$2.43	\$180.00	33
1996	50.7	64.4	234	766	50,169	520,651	\$1.33	\$85.60	45
1997	117	120.0	226	1,127	47,036	754,140	\$0.79	\$92.60	65
1998 ^g	225.9 ^h	243.3	229	1,767	47,909	891,268	\$0.56	\$134.65	64

^aMillions of pounds.

^bDeadloss not included.

^cIncludes *C. bairdi* gear prior to 1992.

^dMillions of dollars.

^eIn days.

^fPartial district and subdistrict closures, see Table 3.

^gOpen access fishery only.

^hOpen access fishery GHL.

Table 3. Historical Bering Sea snow crab season dates and area closures.

Season	Opened	Closed	Comments
1977/78	09/15/77	09/23/78	Bering Sea District closure ^a
1978/79	11/01/78	09/03/79	Bering Sea District closure ^a
1979/80	11/01/79	08/15/80 09/03/80	Bering Sea District state closure Bering Sea District federal closure
1981	01/15/81	09/01/81	Bering Sea District closure ^b
1982	02/15/82	08/01/82	Bering Sea District closure ^b
1983	02/15/83	05/22/83 08/01/83	Bering Sea District closure south of 57°30' N. lat. ^b Bering Sea District closure north of 57°30' N. lat. ^b
1984	02/15/84 09/15/84	08/01/84 08/22/84 12/31/84	Bering Sea District closure south of 58° N. lat. ^b Bering Sea District closure north of 58° N. lat. to allow an orderly start to king crab season ^b Bering Sea District closure north of 58°N. lat. reopened after king season and Bering Sea District ^b
1985	1/15/85 10/9/85	05/08/85 08/01/85 08/22/85 12/31/85*	Pribilof Subdistrict closure south of 58° N. lat. ^b Bering Sea District closure south of 58°39' N. lat. ^b Northern Subdistrict closure to allow an orderly start to king crab season ^b Bering Sea District reopened, except east of 164° W. long. in Southeastern Subdistrict, *fishery was scheduled to close 12/31/85 but did not, it remained open through the 1/15/86 start date for 1986 fishery
1986	01/15/86	04/21/86 06/01/86 08/01/86 08/24/86	Southeastern Subdistrict closure west of 164° W long. ^b Pribilof Subdistrict closure ^b Northern Subdistrict closure east of 175° W. long. ^b Northern Subdistrict closure west of 175° W. long. ^b
1987	01/15/87	04/12/87 06/01/87 06/22/87	Southeastern Subdistrict west of 164° W. long., and Pribilof Subdistrict closure Northern Subdistrict south of 60°30' N lat. & east of 178° W. long. closure Northern Subdistrict north of 60°30' N lat. & west of 178° W. long. closure

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Table 3. (Page 2 of 2)

Season	Opened	Closed	Comments
1988	01/15/88 05/15/88	03/29/88 06/30/88	Bering Sea District closure (Western Subdistrict to assist in an orderly closure) Western Subdistrict reopened and Western Subdistrict closure
1989	01/15/89	03/26/89 05/07/89	Eastern Subdistrict closure Western Subdistrict closure
1990	01/15/90	04/09/90 04/24/90 06/12/90	Eastern Subdistrict east of 165° W. long. closure Eastern Subdistrict west of 165° W. long. closure Western Subdistrict closure
1991	01/15/91	05/05/91 06/23/91	Eastern Subdistrict closure Western Subdistrict closure
1992	01/15/92	04/22/92	Bering Sea District closure
1993	01/15/93	03/15/93	Bering Sea District closure
1994	01/15/94	03/01/94	Bering Sea District closure
1995	01/15/95	02/17/95	Bering Sea District closure
1996	01/15/96	02/29/96	Bering Sea District closure
1997	01/15/97	03/21/97	Bering Sea District closure
1998	01/15/98	03/20/98	Bering Sea District closure

^aState managed domestic fishery.

^bConcurrent state and federal date.

Table 4. Bering Sea commercial snow crab catch by statistical area, 1998.

Area	Number of		Harvest ^a (pounds)	Pots Pulled	Average		Deadloss (pounds)
	Landings	Crab ^a			CPUE ^b	Weight (pounds)	
.....EASTERN SUBDISTRICT AREAS.....							
645501	9	502,828	791,828	3,409	148	1.57	8,580
645530	12	789,936	1,172,797	4,847	163	1.48	7,567
655500	40	2,403,918	3,809,211	15,388	156	1.58	27,185
655530	43	2,426,950	3,502,607	16,585	146	1.44	36,521
655600	10	274,681	371,175	2,462	112	1.35	3,178
665430	3	47,422	77,764	235	202	1.64	483
665500	50	2,139,547	3,242,212	16,427	130	1.52	31,414
665530	92	5,722,220	8,189,887	30,090	190	1.43	49,395
665600	51	2,278,229	3,131,940	17,280	132	1.37	28,131
665630	10	435,747	613,200	3,024	144	1.41	4,032
675500	99	7,806,042	11,733,708	38,628	202	1.50	113,441
675530	204	16,216,701	22,691,176	74,655	217	1.40	203,266
675600	223	17,818,015	23,476,901	83,509	213	1.32	197,422
675630	67	4,783,187	6,246,377	25,008	191	1.31	54,211
675700	6	291,312	381,830	1,284	227	1.31	3,397
685500	21	741,389	1,050,322	3,002	247	1.42	12,953
685530	119	11,017,997	15,634,778	41,994	262	1.42	186,718
685600	314	28,296,899	35,517,511	120,003	236	1.26	445,921
685630	251	20,000,800	25,201,779	91,422	219	1.26	236,754
685700	30	1,884,161	2,415,211	11,506	164	1.28	36,600
695600	52	3,604,208	4,497,013	14,610	247	1.25	64,955
695631	95	6,833,540	8,464,452	32,909	208	1.24	171,818
695632	5	123,869	158,358	730	170	1.28	538
695700	41	1,897,920	2,371,620	15,568	122	1.25	34,912
705600	23	1,711,088	2,182,120	9,722	176	1.28	7,874
705630	13	686,989	837,141	3,330	206	1.22	9,515
705701	34	2,375,700	2,880,560	11,655	204	1.21	31,819
705730	5	33,484	38,735	207	162	1.16	2,741
715600	13	695,767	830,573	4,011	174	1.19	7,688

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Table 4. (Page 2 of 2)

Area	Number of		Harvest ^a (pounds)	Pots Pulled	Average		Deadloss (pounds)
	Landings	Crab ^a			CPUE ^b	Weight (pounds)	
.....EASTERN SUBDISTRICT AREAS (continued).....							
715630	79	5,279,669	6,463,669	27,000	196	1.22	104,589
715700	107	8,699,031	10,371,582	47,073	185	1.19	151,430
715730	33	2,024,613	2,330,319	10,305	197	1.15	123,190
725600	4	238,905	310,030	1,265	189	1.30	8,359
725630	43	2,997,852	3,662,503	13,886	216	1.22	92,564
725700	110	8,467,669	10,359,531	35,465	239	1.22	109,280
725730	53	4,749,965	5,540,746	19,842	239	1.17	156,212
725800	6	201,908	242,632	1,009	200	1.20	2,030
.....WESTERN SUBDISTRICT AREAS.....							
735630	5	361,969	461,611	1,400	259	1.28	900
735700	26	1,623,992	1,983,942	7,198	226	1.22	15,127
735730	30	2,351,564	2,858,020	9,086	259	1.22	24,209
735800	18	2,236,504	2,859,306	8,446	265	1.28	21,434
735830	11	1,096,821	1,355,606	4,096	268	1.24	21,262
745800	3	160,309	189,502	729	220	1.18	13,504
745830	9	659,606	818,505	3,066	215	1.24	7,171
Other ^c	27	1,552,811	2,021,521	7,902	197	1.30	23,655
Total^d	1,767^e	186,543,734	243,341,811	891,268	209	1.30	2,893,945

^aDeadloss included.

^bDefined as catch of legal crabs per pot.

^cIncludes 12 statistical areas where less than three vessels made landings.

^dOpen access fishery only.

^eActual total landings for the fishery.

Table 5. Bering Sea commercial snow crab harvest by season and subdistrict, 1977/78-1998.

Season	Subdistrict	Number of			Harvest ^a (pounds)	Pots Pulled	Average		Deadloss (pounds)
		Vessels	Landings	Crab ^a			Weight (pounds)	CPUE ^b	
1977/78	Southeastern		33	1,063,872	1,439,959	11,560	1.4	92	0
	Pribilof		5	203,674	276,165	1,687	1.4	121	
	TOTAL	15	38	1,267,546	1,716,124	13,247	1.4	96	0
1978/79	Southeastern	101	476	21,279,794	31,102,832	184,491	1.5	115	659,137
	Pribilof	10	14	838,704	1,084,039	6,225	1.5	135	100,000
	TOTAL	102	490	22,118,498	32,187,039	190,746	1.5	116	759,137
1979/80	Southeastern	133	561	23,199,446	36,406,391	237,375	1.6	98	187,945
	Pribilof	19	36	2,087,331	3,166,777	17,727	1.5	118	40,400
	TOTAL	134	597	25,286,777	39,572,668	255,102	1.6	99	228,345
1981	Southeastern		624	24,498,642	37,866,229	309,304	1.6	79	1,475,078
	Pribilof		243	9,916,617	14,886,705	126,438	1.5	78	794,901
	TOTAL	153	867	34,415,322	52,750,034	435,742	1.5	79	2,269,979
1982	Southeastern		468	10,207,174	13,079,583	257,193	1.3	40	422,979
	Pribilof		335	13,882,388	16,276,421	211,898	1.2	66	669,676
	TOTAL	122	803	24,089,562	29,355,374	469,091	1.2	51	1,092,655
1983	Southeastern		153	3,553,281	4,197,304	94,470	1.2	38	165,298
	Pribilof		239	19,076,553	20,514,000	153,458	1	124	1,078,643
	Northern		69	1,223,813	1,417,106	39,199	1.1	31	80,525
	TOTAL	109	461	23,853,647	26,128,410	287,127	1.1	83	1,324,466

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Table 5. (page 2 of 4)

Season	Subdistrict	Number of			Harvest ^a (pounds)	Pots Pulled	Average		Deadloss (pounds)
		Vessels	Landings	Crab ^a			Weight (pounds)	CPUE ^b	
1984	Southeastern		76	3,534,370	3,990,621	33,091	1.1	107	54,678
	Pribilof		230	17,909,096	19,727,493	112,078	1.1	160	708,706
	Northern		61	2,566,469	3,094,960	28,422	1.2	90	35,411
	TOTAL	52	367	24,009,935	26,813,074	173,591	1.1	138	798,795
1985	Southeastern	55	301	21,963,882	27,373,232	158,819	1.4	138	461,001
	Pribilof	60	301	24,089,526	29,804,093	142,937	1.2	169	505,146
	Northern	24	116	6,849,838	8,821,550	70,289	1.3	97	98,037
	TOTAL	75	718	52,903,246	65,998,875	372,045	1.3	142	1,064,184
1986	Southeastern	47	112	8,491,694	10,957,578	63,889	1.3	133	44,755
	Pribilof	80	508	39,851,767	50,525,150	281,337	1.3	142	472,342
	Northern	67	372	28,155,662	36,501,811	198,518	1.3	142	861,436
	TOTAL	88	992	76,499,123	97,984,539	543,744	1.3	141	1,378,533
1987	Southeastern	28	64	4,116,778	5,106,473	24,619	1.2	167	24,619
	Pribilof	94	458	38,604,802	47,676,734	261,337	1.2	148	261,337
	Northern	99	516	38,586,079	49,120,181	330,157	1.2	117	330,157
	TOTAL	103	1,038	81,307,659	101,903,388	616,113	1.2	132	978,449
1988	Eastern	162	770	59,811,702	75,781,258	431,310	1.3	139	775,104
	Western	151	515	45,904,635	58,278,927	335,597	1.3	137	2,484,916
	TOTAL	171	1,285	105,716,337	134,060,185	776,907	1.3	136	3,260,020

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Table 5. (page 3 of 4)

Season	Subdistrict	Number of			Harvest ^a (pounds)	Pots Pulled	Average		Deadloss (pounds)
		Vessels	Landings	Crab ^a			Weight (pounds)	CPUE ^b	
1989	Eastern	163	871	77,698,698	104,399,693	391,451	1.3	198	1,128,971
	Western	127	470	34,920,183	45,056,155	271,991	1.3	128	715,711
	TOTAL	168	1,341	112,618,881	149,455,848	663,442	1.3	170	1,844,682
1990	Eastern	177	956	76,331,829	94,831,897	512,259	1.2	149	1,010,755
	Western	152	659	52,645,809	66,989,453	399,354	1.3	132	785,909
	TOTAL	189	1,565	128,977,638	161,821,350	911,613	1.3	141	1,796,664
1991	Eastern	218	2,013	190,139,612	240,090,666	912,751	1.3	208	1,593,021
	Western	186	867	74,984,348	88,556,603	478,832	1.2	157	1,871,015
	TOTAL	220	2,788	265,123,960	328,647,269	1,391,583	1.2	191	3,464,036
1992	Eastern	250	N/A	217,375,564	302,363,005	1,228,280	1.4	177	2,268,467
	Western	55	N/A	10,001,018	12,939,029	53,516	1.3	187	57,385
	TOTAL	250	2,763	227,376,582	315,302,034	1,281,796	1.4	177	2,325,852
1993	Eastern	251	1,384	110,760,099	151,328,721	675,996	1.4	164	1,108,520
	Western	185	633	58,798,743	79,458,279	295,050	1.4	199	465,432
	TOTAL	254	1,836	169,558,842	230,787,000	971,046	1.4	175	1,573,952
1994	Eastern	220	820	56,012,017	72,008,424	375,928	1.3	149	901,674
	Western	171	586	58,766,997	77,767,341	340,596	1.3	173	897,649
	TOTAL	273	1,293	114,779,014	149,775,765	716,524	1.3	160	1,799,323

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Table 5. (page 4 of 4)

Season	Subdistrict	Number of			Harvest ^a (pounds)	Pots Pulled	Average		Deadloss (pounds)
		Vessels	Landings	Crab ^a			Weight (pounds)	CPUE ^b	
1995	Eastern	217	627	32,630,348	39,736,986	313,910	1.2	104	657,051
	Western	153	357	27,981,063	35,515,691	192,892	1.3	145	630,118
	TOTAL	253	869	60,611,411	75,252,677	506,802	1.2	120	1,287,169
1996	Eastern	161	462	23,676,069	28,244,924	252,227	1.2	94	555,118
	Western	146	351	29,236,754	37,467,873	268,424	1.3	109	777,896
	TOTAL	234	766	52,912,823	65,712,797	520,651	1.2	102	1,333,014
1997	Eastern	225	1,040	88,486,602	105,648,771	649,319	1.2	136	2,115,217
	Western	83	164	11,488,937	13,894,253	104,821	1.2	110	236,338
	TOTAL	226	1,127	99,975,539	119,543,024	754,140	1.2	133	2,351,555
1998 ^c	Eastern	228	172,417	177,781,444	232,485,209	855,393	1.3	205	2,787,292
	Western	44	88	8,762,290	10,856,172	35,875	1.2	242	106,653
	TOTAL	229	17,671	186,543,734	243,341,381	891,268	1.3	207	2,893,945

^aDeadloss included.

^bDefined as catch of legal crab per pot.

^cOpen access fishery only.

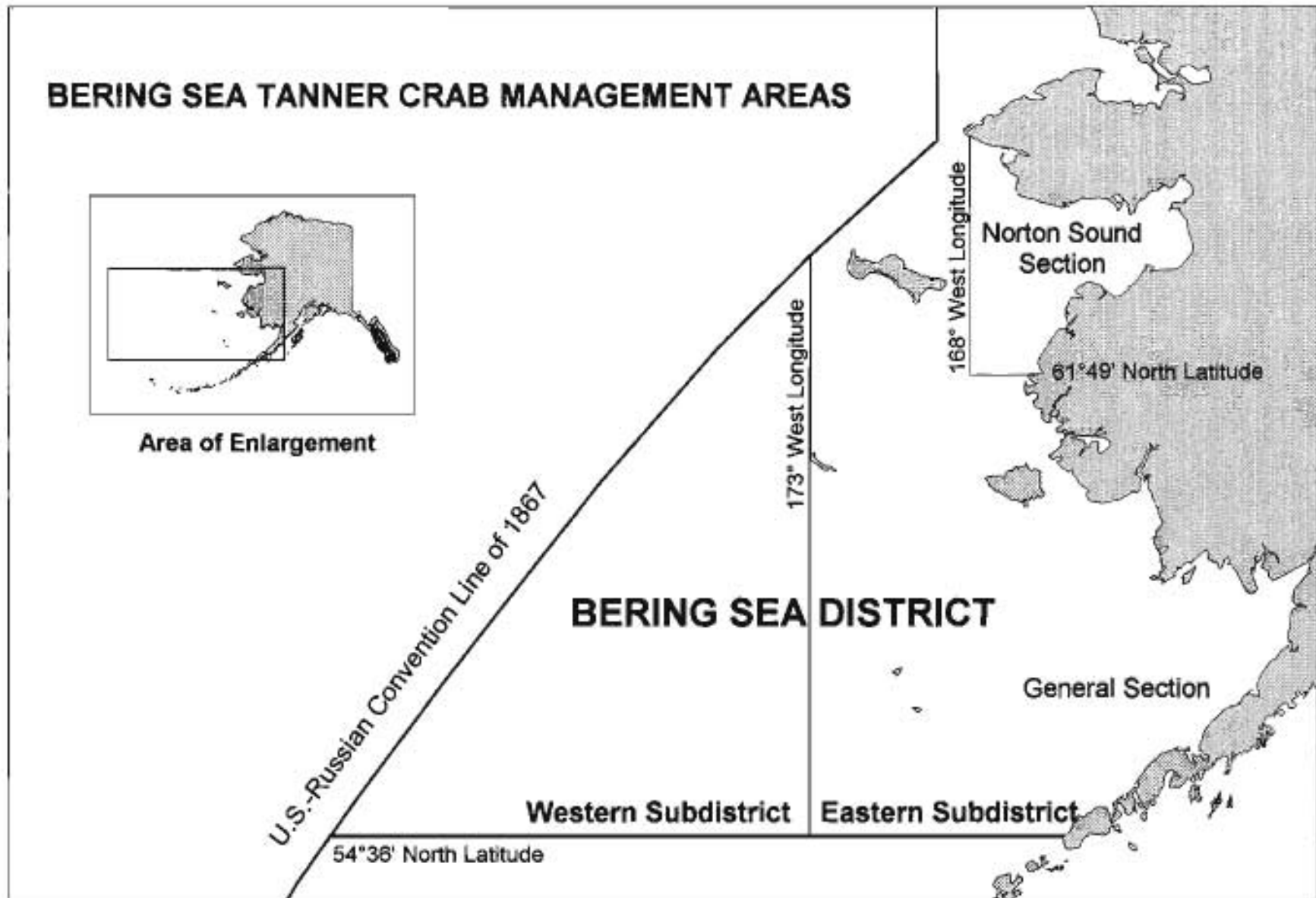


Figure 1. The Bering Sea Tanner crab management area with subdistricts and sections.

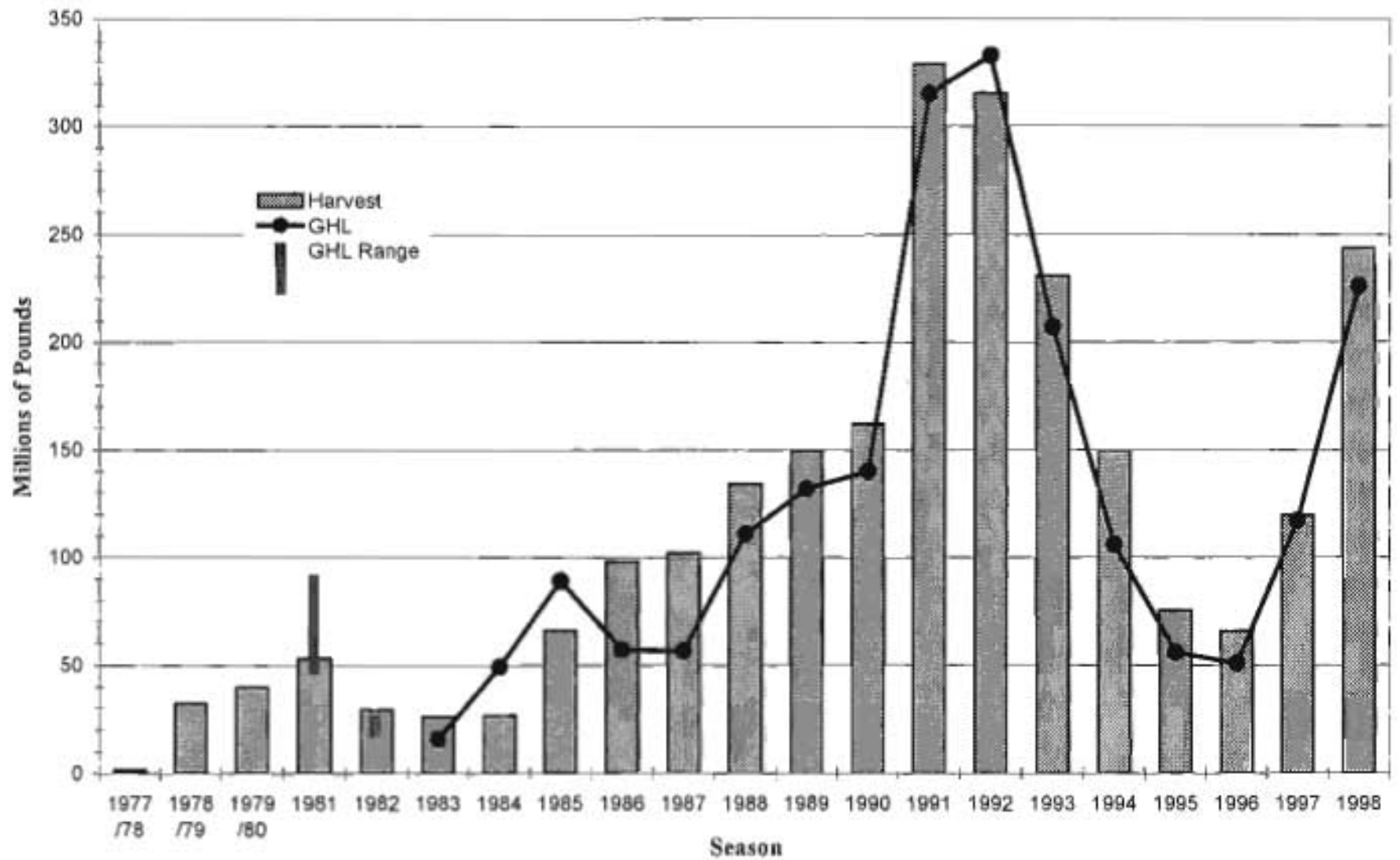


Figure 2. Harvest, GHL ranges and GHLs, for the Bering Sea snow crab fishery, 1977-1998.

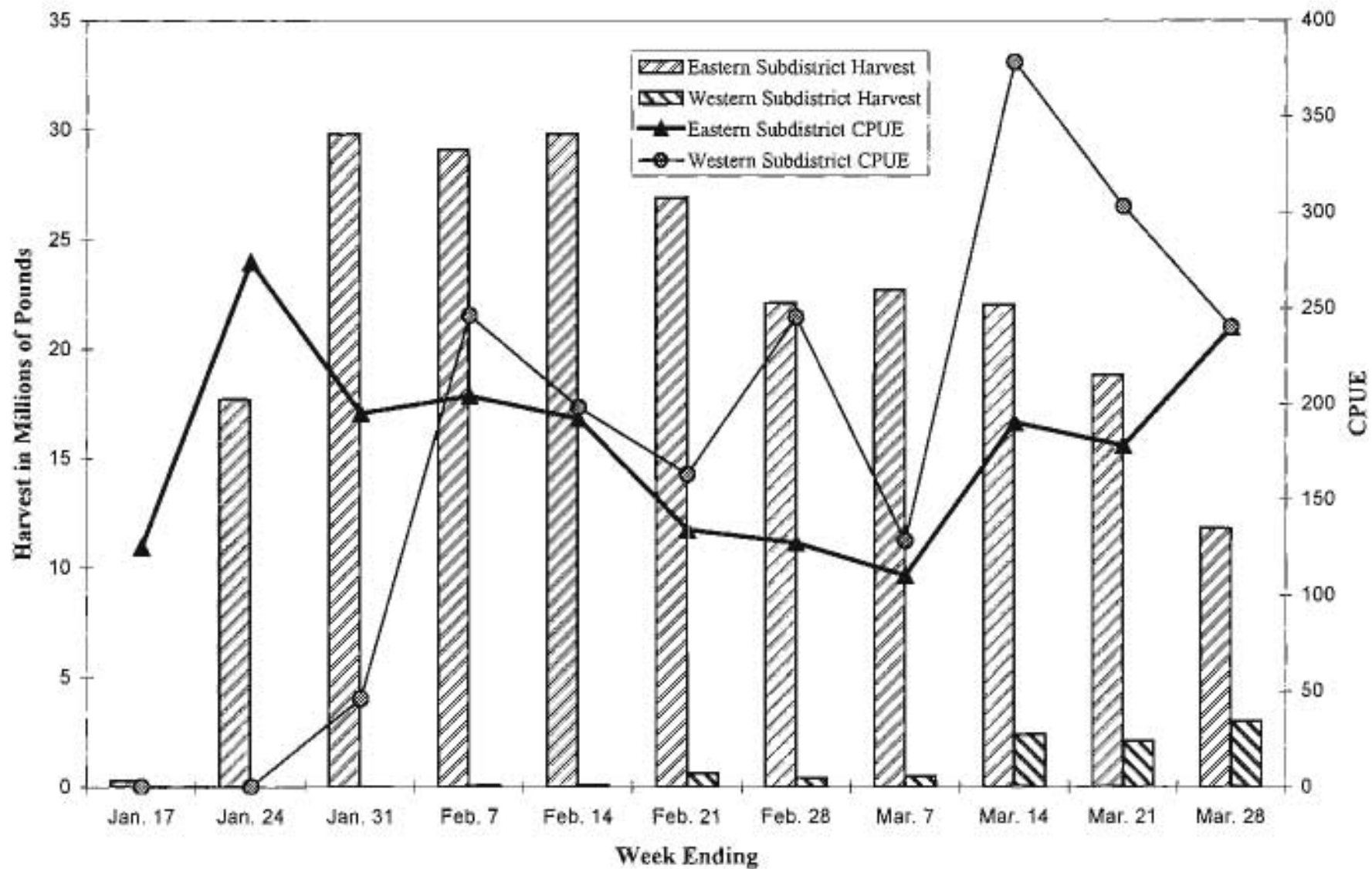


Figure 3. Harvest and CPUE, by week, in the 1998 Bering Sea snow crab fishery.

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