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**Information on the Distribution
and Biology of the Golden
(Brown) King Crab
in the Bering Sea
and Aleutian Islands Area**

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INFORMATION ON THE DISTRIBUTION AND BIOLOGY OF THE GOLDEN (BROWN)
KING CRAB IN THE BERING SEA AND ALEUTIAN ISLANDS AREA

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INTRODUCTION

The golden (or brown) king crab, Lithodes aequispina, is closely related to the more common red king crab, Paralithodes camtschatica. Like the red king crab, it is distributed from British Columbia around the Pacific rim to waters off eastern Japan. Unlike the red king crab, the golden king crab is generally found in deeper waters and is only lightly fished in the eastern North Pacific.

There are just a few published reports on the biology of the golden king crab. Some additional data is available on distribution from the incidental catches of golden king crab in the trawl fisheries of the Bering Sea and Aleutian Islands from the observer program conducted by the National Marine Fisheries Service. The purpose of this report is to provide a summarization of the available information on the biology and distribution of this species in the Bering Sea and Aleutian Islands. Since the distribution of golden king crab overlaps major trawling areas of the Bering Sea slope and Aleutian Islands shelf, information on the distribution of trawling effort is also included.

BIOLOGICAL INFORMATION

Knowledge of the life history of the golden king crab comes primarily from scientific surveys conducted in Japanese and U.S.S.R. waters. The following table summarizes what is known about golden king crab and provides comparisons with the red king crab:

	<u>Golden King Crab</u>	<u>Red King Crab</u>
Maximum size of males (mm, carapace length)	220	Similar
Size of maturity for females (mm, carapace length)	110-140	76-105
Main spawning period	July-October	February-May
Eggs per female at 160 mm	About 30,000	About 300,000
Depth distribution (fms)	35-500	10-100

The maximum size of male golden king crab is similar to red king crab. For both species, the maximum size for females is smaller than for males. The average size of maturity for females is in the range of 110-140 mm, which is slightly larger than for red king crab. Spawning of golden king crab in Japanese waters occurs predominately in the summer/fall period, which is in contrast to the spring spawning of red king crab. However, observations in southeastern Alaska indicate that spawning occurs in the spring, also, and possibly at other times of the year (D.M. Clausen, NMFS Auke Bay Laboratory, Juneau, AK; pers. comm.). The number of eggs per female is an order of magnitude less than red king crab. Eggs of the golden king crab are larger, however. Both sexes are parasitized by barnacles which can result in lowered fertility. Golden king crab are generally found in the deeper continental slope waters, but smaller crabs may occur in shallower waters than mature crabs. Females may also be separated from males at times. Studies around west Kamchatka indicate that adults are commonly found around 250 fms in the summer and are most abundant in waters of 1.5-2.0°C. Studies in Japanese waters indicated that catches are highest in the summer months.

DISTRIBUTION IN THE BERING SEA AND ALEUTIAN ISLANDS

Information on the distribution of golden king crab in this region is available from the NMFS foreign fisheries observer program for 1979 and 1980. The Japanese small trawler fleet is the predominant incidental harvester of golden king crab and observations from this fishery on distribution of crabs have been used in this report. The total number of golden king crab caught per hour and their average weight were determined from sampling trawler catches. The number of large males (>165 mm, 6.5" carapace width) caught was determined from further subsampling of sex ratio and size distribution of trawl incidental catches. The average number of large males caught per hour trawled is shown by $1/2^\circ \times 1^\circ$ blocks in figures 1-5.

Figure one shows the overall distribution of large males, averaged over both years. Crabs are distributed throughout the outer shelf and slope regions of the eastern Bering Sea and Aleutian Islands. Areas of highest concentrations are in the Aleutians.

Figures 2-5 depict annual and seasonal variations in the distribution of large males for 1979 and 1980. Zero values in the blocks refer to zero catches of large males, even though females and small males were caught there. Incidental catches, in general, appear higher in the spring, summer, and fall quarters, especially in the Aleutians. The apparent lower abundance in 1980 is due primarily to lower sampling effort in that year.

The values plotted in figures 2-5 are also presented in tables 1-8 by latitude and longitude. The $1/2^\circ \times 1^\circ$ blocks are referenced in the tables by their southeast corners. Other information provided by block in the tables includes average depth of trawl hauls, total number of golden king crab caught per hour, their average size, and the proportion of large males in the total catch of golden king crab.

Data on foreign trawling effort in terms of vessel-days is given in Figures 6-9 on a quarterly basis for 1979 and 1980. This information, compiled by the NMFS Law Enforcement Branch in Juneau, can be used as a general indication of where trawl-pot gear conflicts may occur. On the average, highest levels of trawl effort in these two years were found in the Bering Sea slope areas north of the Pribilof Islands. The lowest effort occurred in the eastern Aleutians. Average trawl effort was similar between years and quarters of each year.

FISHERY POTENTIAL

The catch rates of large males presented here are low. This is probably due in part to inadequate sampling of large crabs by commercial gear in deep-water slope areas. Biomass estimates of the golden king crab stock cannot be made because of this problem. Therefore, the yield potential cannot be determined at this point. The extent of golden king crab habitat appears similar to that of the red king crab in the Bering Sea and Aleutians. However, representative data is needed on the density of crabs within their habitat to accurately evaluate the potential catch. This type of information will have to await the development of a fishery or survey in the area.

From the available data it may be inferred that the natural production of the golden king crab is less than that of the red king crab. The number of eggs per female is less, parasitism may be a significant problem, and females may mature at an older age than red king crab. This information suggests, over the long term, that the stocks of golden king crab will be at a lower level of abundance than the red king crab stocks. Nevertheless, the current abundance of golden king crab may well support a fishery, especially since red king crab stocks are at low levels in the Bering Sea.

REFERENCES

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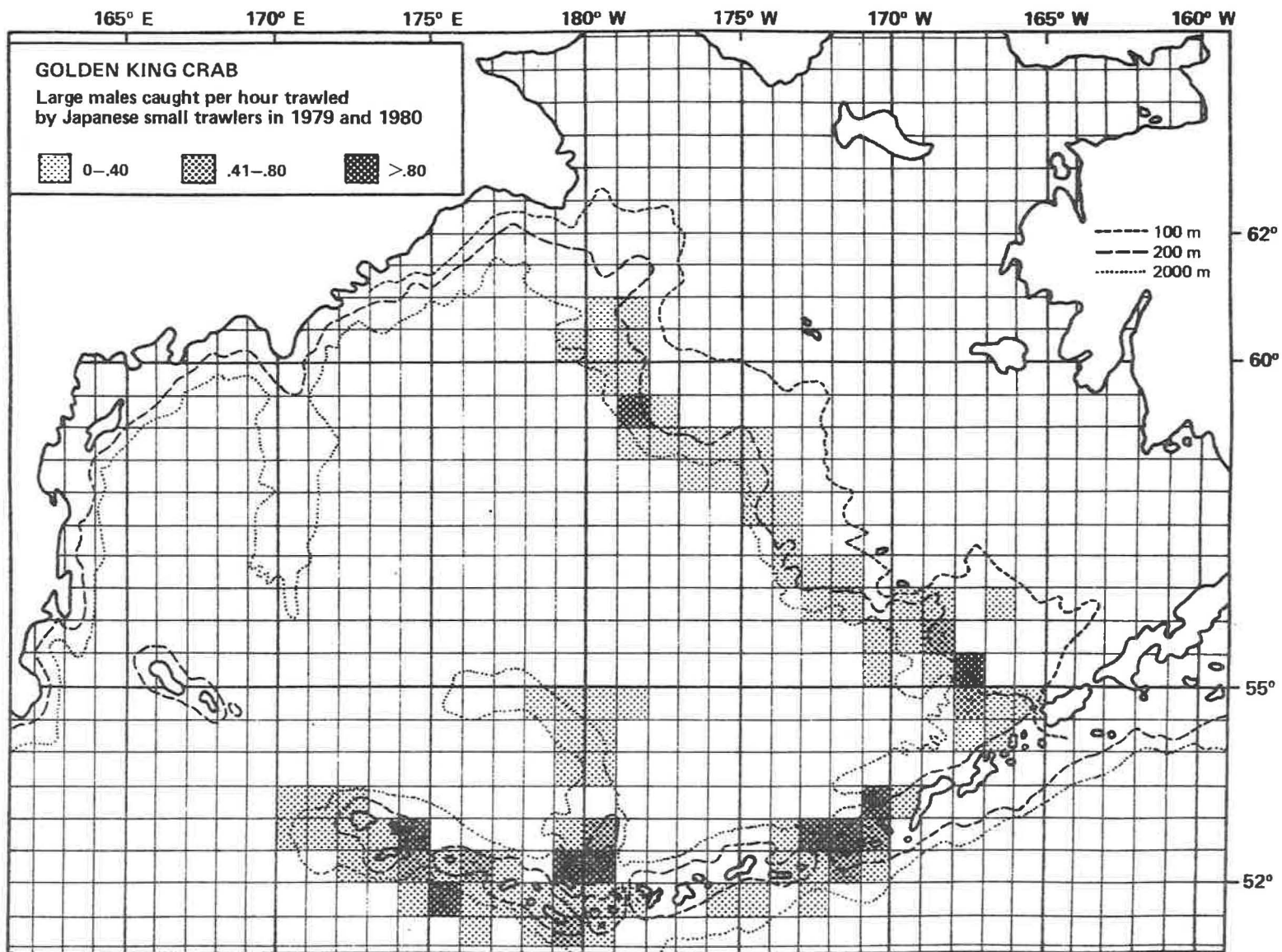


Figure 1.--Distribution of large male golden king crab in the eastern Bering Sea and Aleutian Islands, based on foreign trawler observer data for 1979 and 1980 combined.

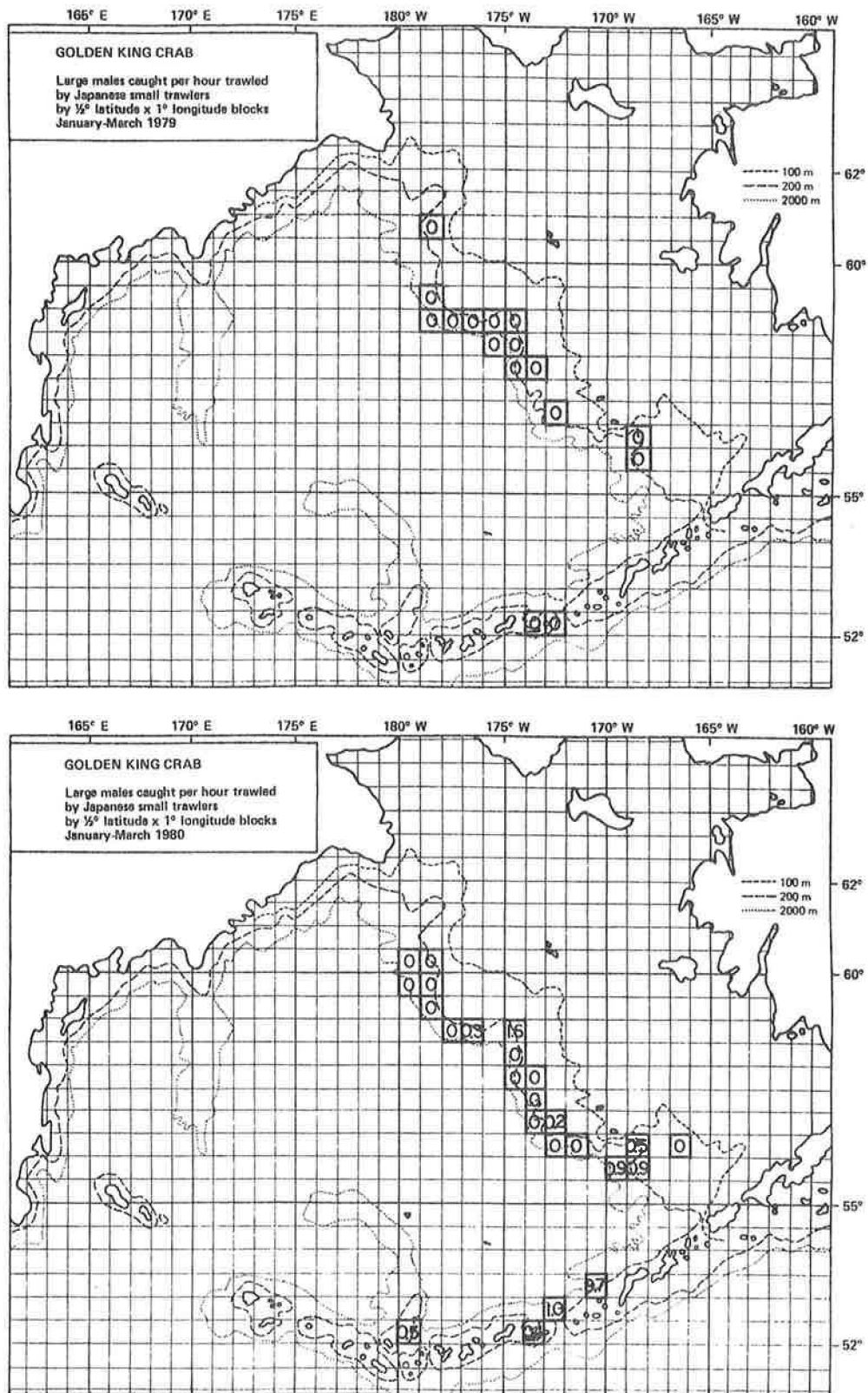


Figure 2.--Distribution of large male golden king crab in the eastern Bering Sea and Aleutian Islands based on foreign trawler observer data for the January-March period, 1979 and 1980.

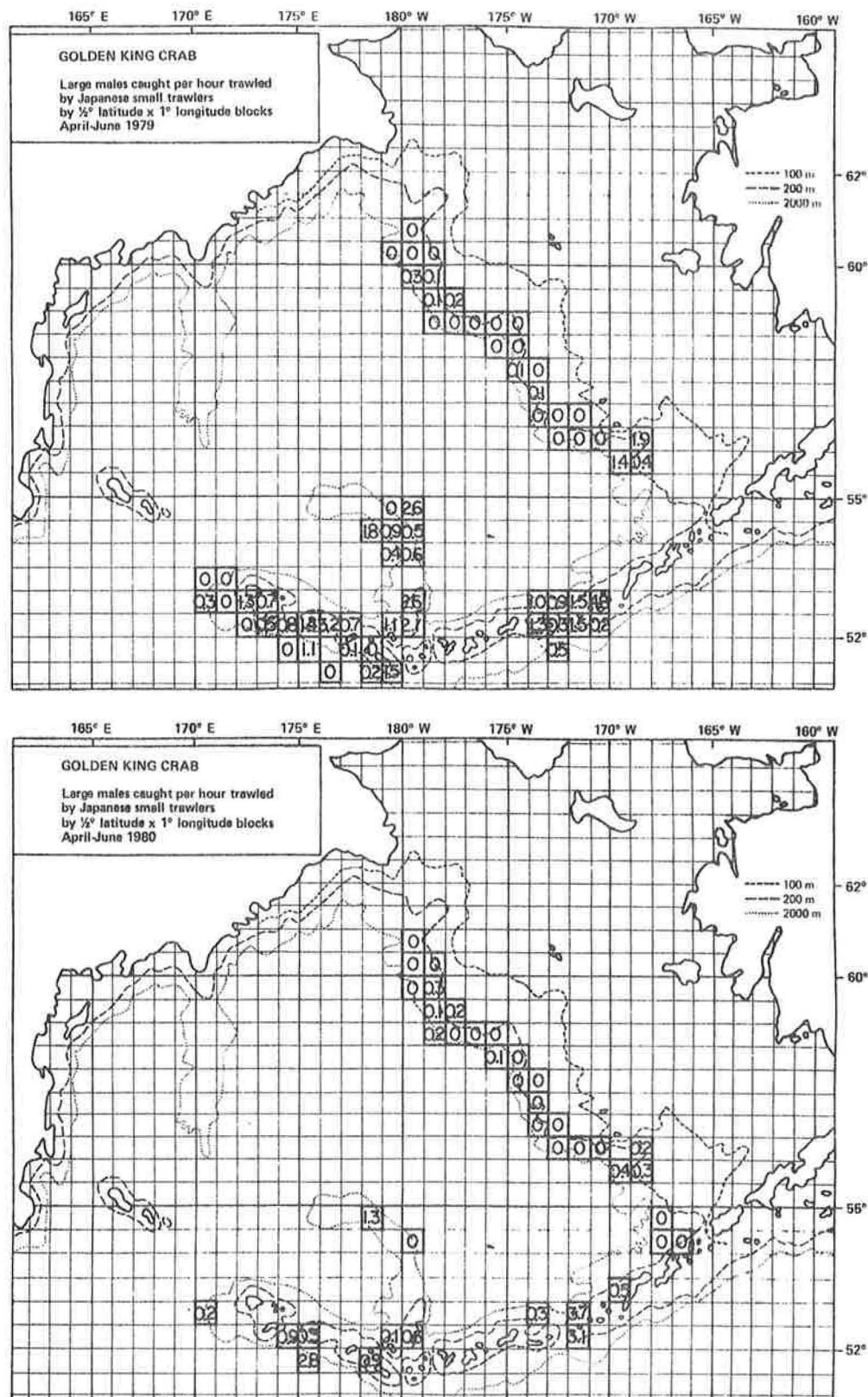


Figure 3.--Distribution of large male golden king crab in the eastern Bering Sea and Aleutian Islands based on foreign trawler observer data for the April-June period, 1979 and 1980.

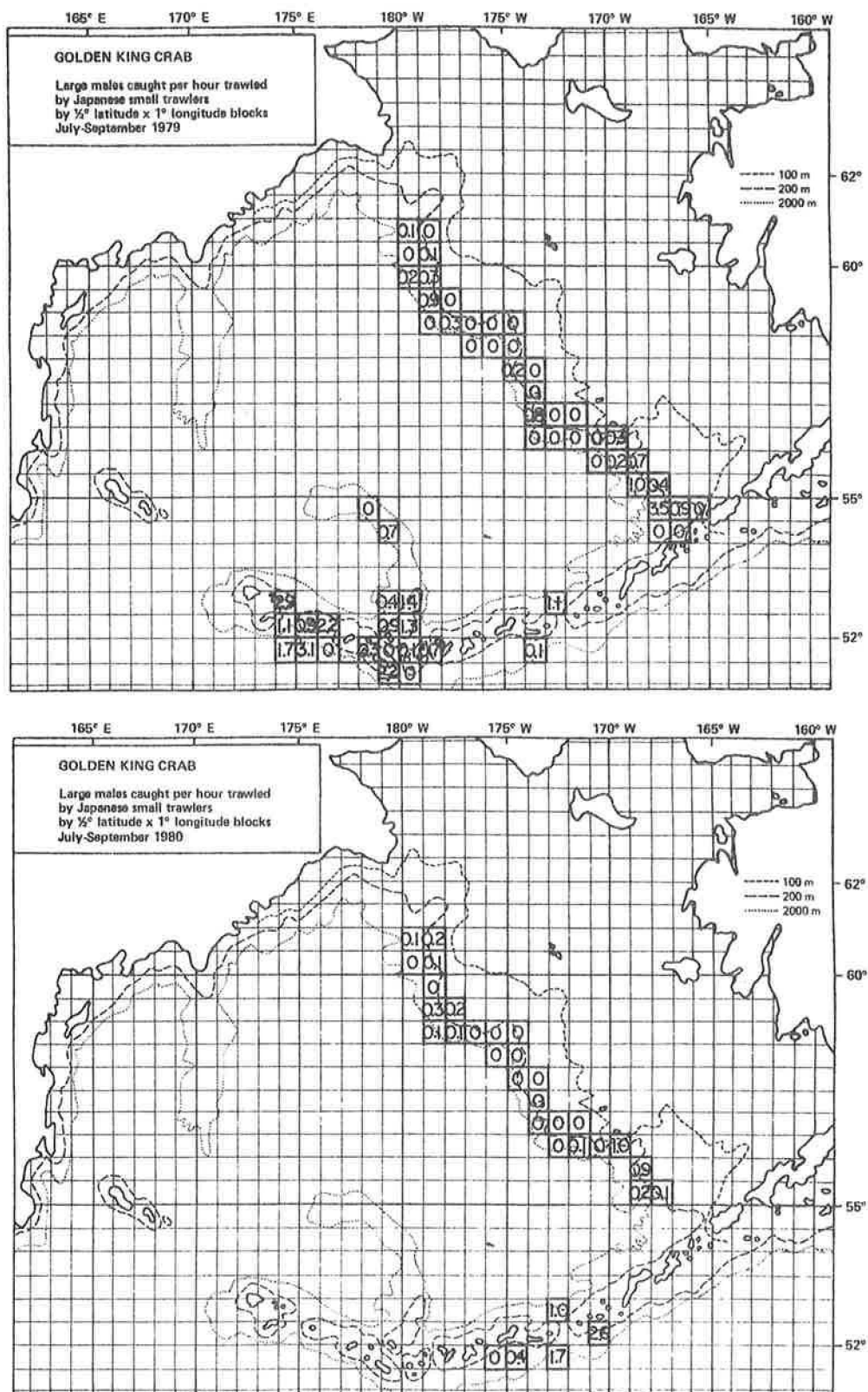


Figure 4.--Distribution of large male golden king crab in the eastern Bering Sea and Aleutian Islands based on foreign trawler observer data for the July-September period, 1979 and 1980.

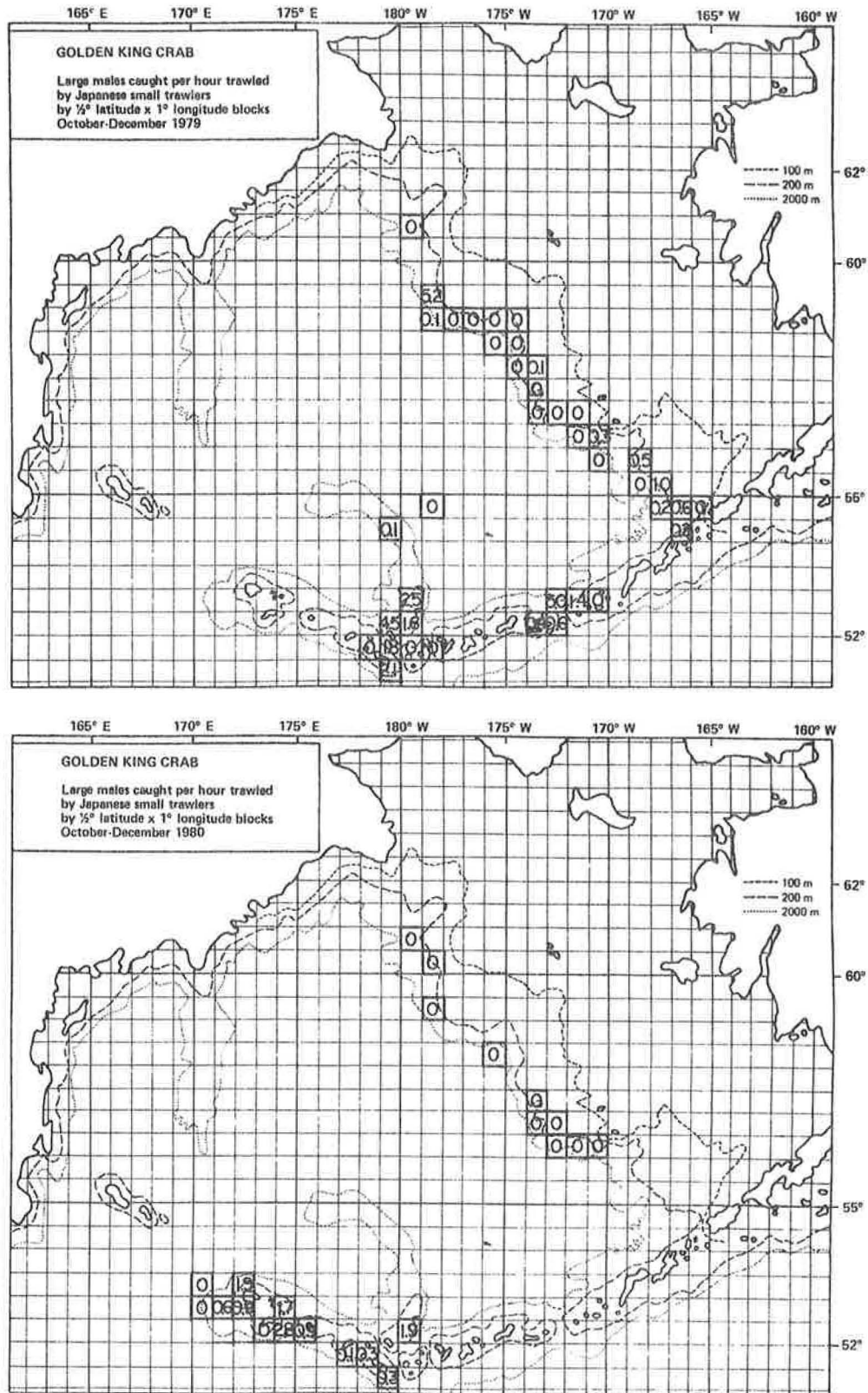


Figure 5.--Distribution of large male golden king crab in the eastern Bering Sea and Aleutian Islands based on foreign trawler observer data for the October-December period, 1979 and 1980.

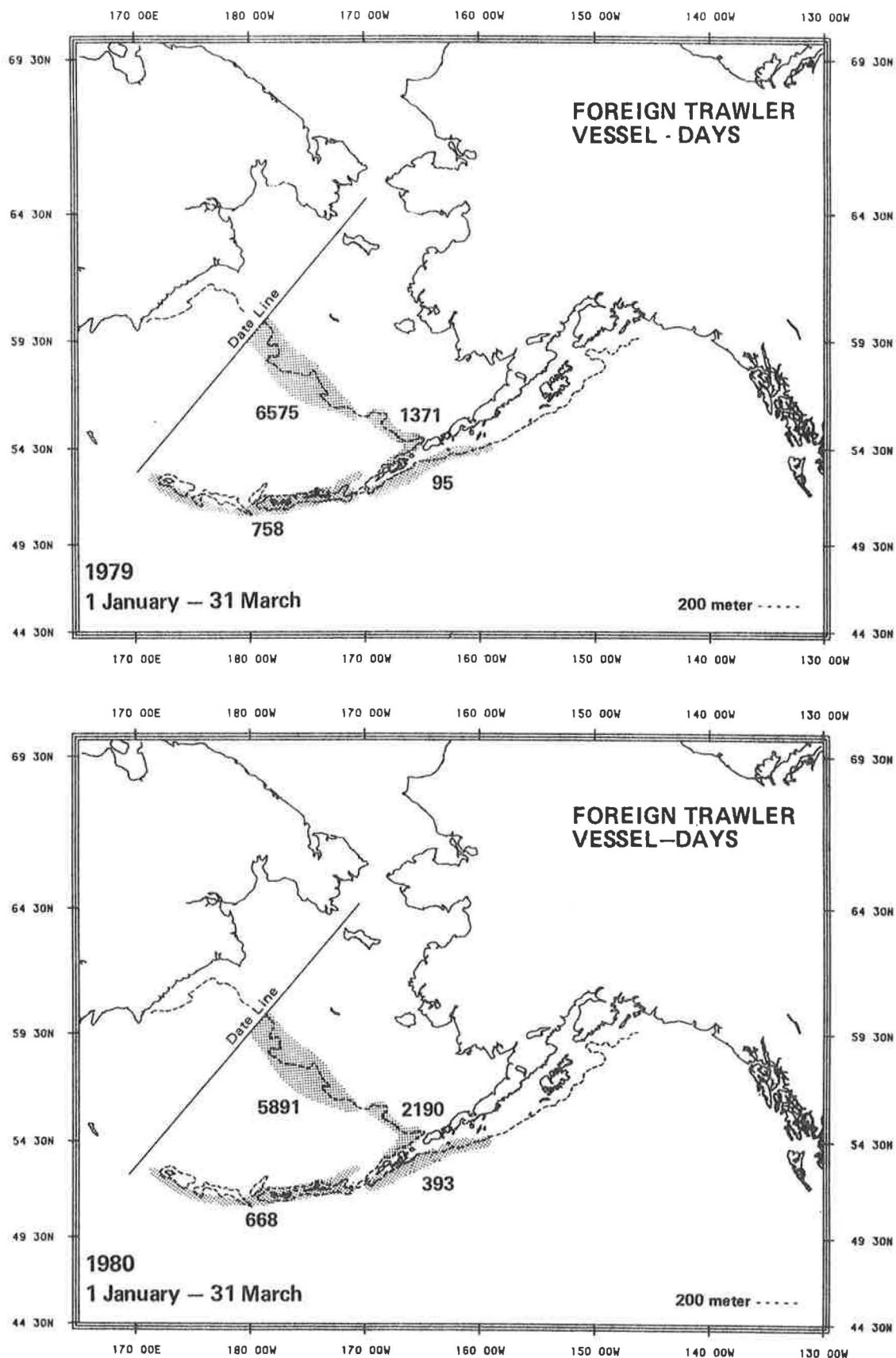


Figure 6.--Distribution of foreign trawler effort in the eastern Bering Sea and Aleutian Islands for the January-March period, 1979 and 1980.

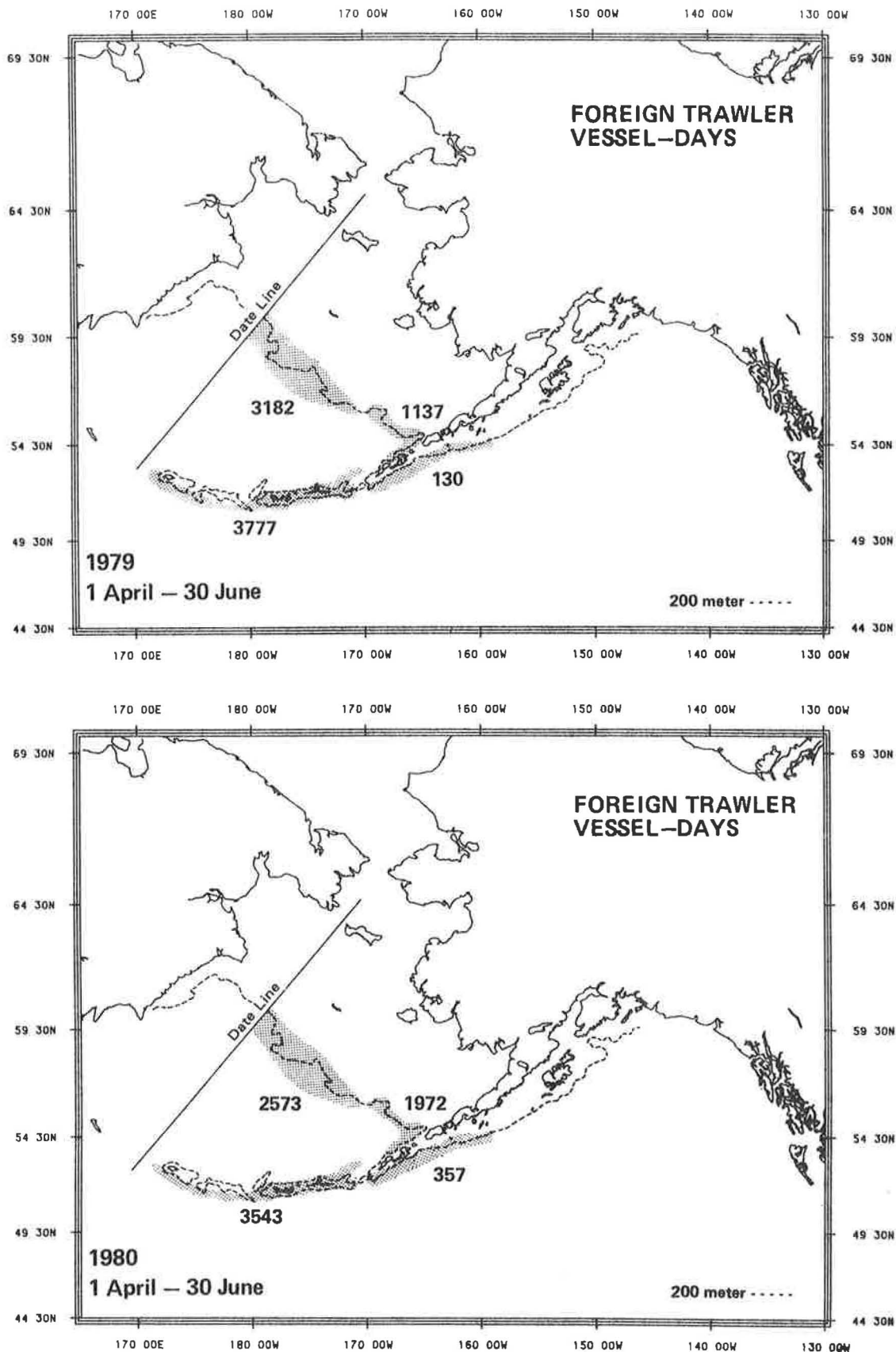


Figure 7.--Distribution of foreign trawler effort in the eastern Bering Sea and Aleutian Islands for the April-June period, 1979 and 1980.

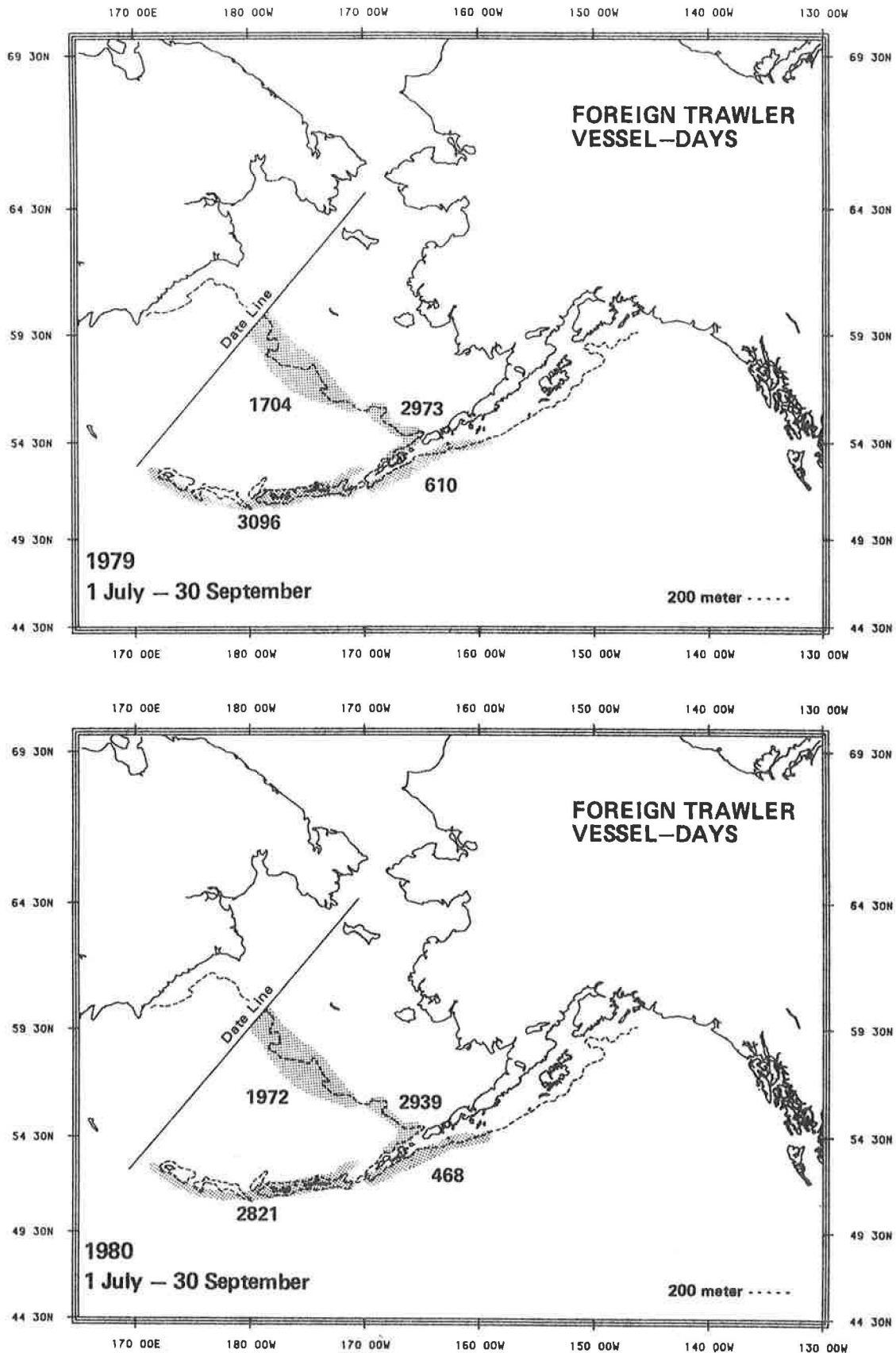


Figure 8.--Distribution of foreign trawler effort in the eastern Bering Sea and Aleutian Islands for the July-September period, 1979 and 1980.

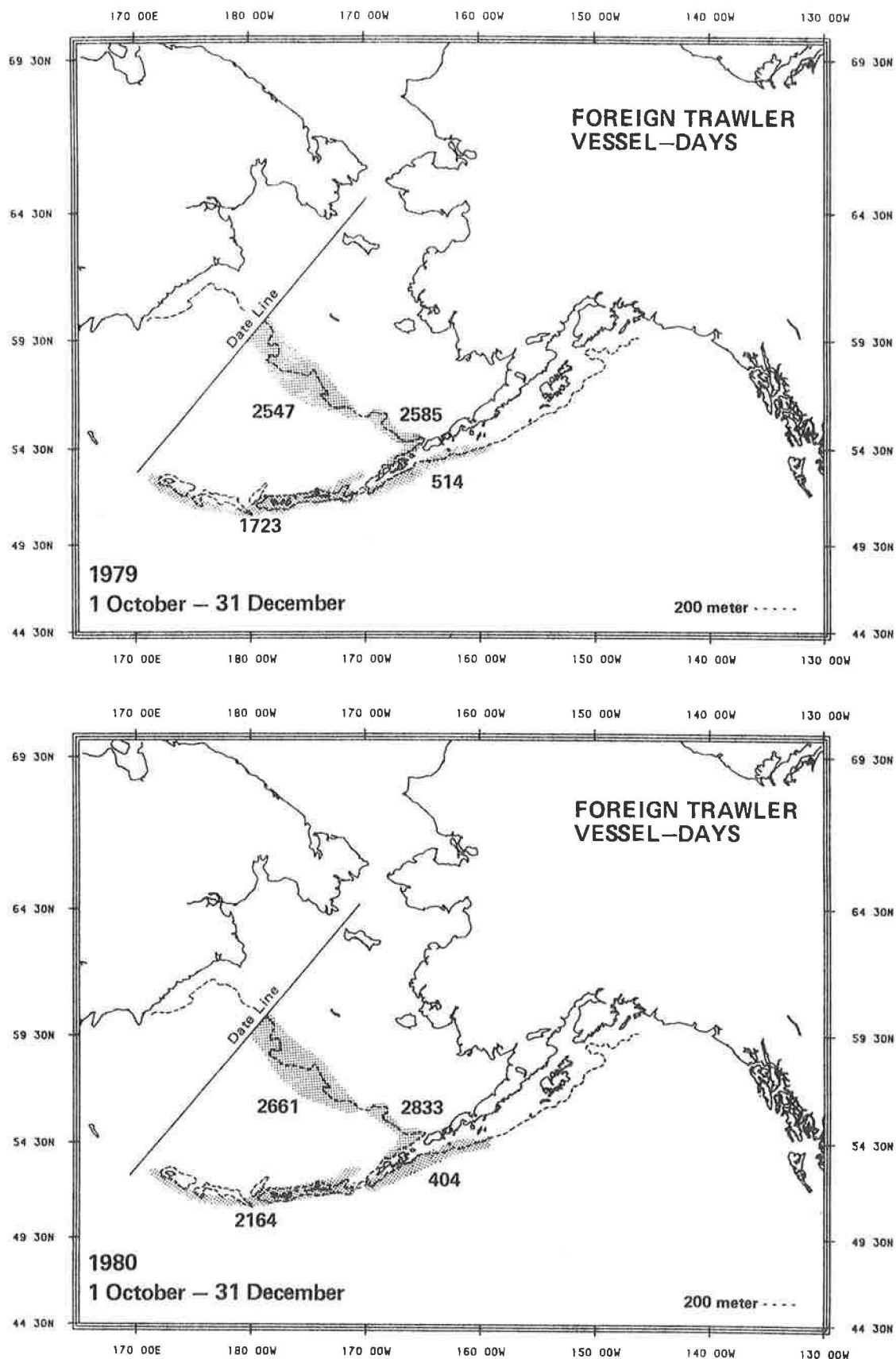


Figure 9.--Distribution of foreign trawler effort in the eastern Bering Sea and Aleutian Islands for the October-December period, 1979 and 1980.

Table 1.--Golden king crab catch information from foreign trawler observer data by $1/2^{\circ} \times 1^{\circ}$ blocks for January-March, 1979.

LONGITUDE	LATITUDE	DEPTH FMS	CRABS/HR	AVERAGE LBS/CRAB	PROPORTION	
					LEGAL MALES	LEGALS/HR
168 00	55 30	353	10.39	2.00	0.00	0.00
168 00	56 00	331	10.87	1.75	0.00	0.00
172 00	52 00	430	0.26	1.76	0.00	0.00
172 00	56 30	227	0.12	0.75	0.00	0.00
173 00	52 00	443	0.39	2.26	0.00	0.00
173 00	57 30	193	0.05	2.65	0.00	0.00
174 00	57 30	328	1.08	1.32	0.00	0.00
174 00	58 00	307	0.54	1.41	0.00	0.00
174 00	58 30	330	0.36	2.13	0.00	0.00
175 00	58 00	349	0.34	1.39	0.00	0.00
175 00	58 30	321	0.12	1.32	0.00	0.00
176 00	58 30	326	0.40	1.03	0.00	0.00
177 00	58 30	224	1.42	0.74	0.00	0.00
178 00	58 30	220	0.24	0.44	0.00	0.00
178 00	59 00	206	0.27	1.52	0.00	0.00
178 00	60 30	109	5.00	3.03	0.00	0.00

Table 2.--Golden king crab catch information from foreign trawler observer data by $1/2^{\circ} \times 1^{\circ}$ blocks for April-June, 1979.

LONGITUDE	LATITUDE	DEPTH FMS	CRABS/HR	PROPORTION		
				AVERAGE LBS/CRAB	LEGAL MALES	LEGALS/HR
168 00	55 30	275	1.84	2.63	0.23	0.42
168 00	56 00	363	9.66	1.39	0.20	1.93
169 00	55 30	415	3.34	1.52	0.43	1.43
170 00	52 00	181	0.28	3.89	0.67	0.19
170 00	52 30	323	14.00	2.23	0.35	4.89
170 00	56 00	228	5.52	1.35	0.00	0.00
171 00	52 00	164	5.71	3.73	0.26	1.47
171 00	52 30	206	2.78	4.33	0.55	1.53
171 00	56 00	262	0.41	1.16	0.02	0.01
171 00	56 30	308	0.32	0.51	0.00	0.00
172 00	51 30	134	0.55	5.97	0.89	0.49
172 00	52 00	91	0.27	7.59	1.00	0.27
172 00	52 30	332	1.92	2.51	0.47	0.89
172 00	56 00	267	1.64	0.63	0.00	0.00
172 00	56 30	281	0.35	0.96	0.03	0.01
173 00	52 00	328	5.92	2.25	0.21	1.27
173 00	52 30	286	3.10	2.75	0.31	0.95
173 00	56 30	282	0.55	1.33	0.06	0.03
173 00	57 00	264	1.43	1.47	0.08	0.12
173 00	57 30	255	1.70	1.30	0.02	0.04
174 00	57 30	235	0.54	2.20	0.13	0.07
174 00	58 00	269	5.08	0.81	0.01	0.03
174 00	58 30	304	0.43	1.03	0.00	0.00
175 00	58 00	301	0.12	0.99	0.00	0.00
175 00	58 30	270	0.16	0.98	0.17	0.03
176 00	58 30	259	0.14	1.06	0.00	0.00
177 00	58 30	240	1.59	1.48	0.03	0.05
177 00	59 00	261	0.63	0.55	0.32	0.20
178 00	58 30	270	0.92	1.19	0.06	0.05
178 00	59 00	282	1.00	1.14	0.05	0.05
178 00	59 30	263	1.21	1.09	0.04	0.05
178 00	60 00	286	1.38	1.38	0.00	0.01
179 00	52 00	167	2.75	4.40	0.75	2.07
179 00	52 30	202	3.75	4.82	0.70	2.61
179 00	53 30	228	3.05	1.36	0.20	0.62
179 00	54 00	216	2.60	1.30	0.18	0.47
179 00	54 30	235	12.27	1.14	0.21	2.58
179 00	59 30	320	1.12	1.83	0.25	0.28
179 00	60 00	318	2.88	0.92	0.01	0.03
179 00	60 30	296	9.07	1.02	0.00	0.02
180 00	51 00	143	1.62	5.21	0.94	1.53
180 00	52 00	188	4.44	2.61	0.24	1.07
180 00	53 30	197	1.77	1.69	0.24	0.43
180 00	54 00	213	3.56	1.52	0.24	0.85
180 00	54 30	267	0.31	0.44	0.00	0.00
180 00	60 00	382	2.61	0.73	0.00	0.00
181 00	51 00	123	0.20	3.97	1.00	0.20
181 00	51 30	133	0.35	5.18	0.00	0.00
181 00	54 30	158	5.40	2.24	0.33	1.80
182 00	51 30	130	0.12	14.33	1.00	0.12
182 00	52 00	136	18.61	3.04	0.04	0.72
183 00	51 00	131	0.45	4.41	0.00	0.00
183 00	52 00	162	4.47	3.16	0.71	3.16
184 00	51 30	126	1.79	3.82	0.59	1.05
184 00	52 00	152	5.77	2.26	0.25	1.43
185 00	51 30	109	5.90	2.31	0.00	0.00
185 00	52 00	144	1.86	3.13	0.43	0.80
186 00	52 00	183	0.69	3.80	0.70	0.48
186 00	52 30	120	0.68	4.04	1.00	0.68
187 00	52 00	114	1.13	5.38	0.00	0.00
187 00	52 30	140	2.49	4.10	0.51	1.26
188 00	52 30	170	9.56	0.50	0.00	0.00
188 00	53 00	143	0.46	3.66	0.00	0.00
189 00	52 30	157	0.42	2.94	0.64	0.27
189 00	53 00	141	0.35	0.33	0.00	0.00

Table 3.--Golden king crab catch information from foreign trawler observer data by 1/2° x 1° blocks for July-September, 1979.

LONGITUDE	LATITUDE	DEPTH FMS	CRABS/HR	AVERAGE LBS/CRAB	PROPORTION	
					LEGAL MALES	LEGALS/HR
165 00	54 30	203	1.91	3.73	0.00	0.00
166 00	54 00	500	2.79	1.23	0.00	0.00
166 00	54 30	204	3.36	3.57	0.27	0.91
167 00	54 00	431	0.08	1.54	0.00	0.00
167 00	54 30	236	11.02	2.39	0.32	3.55
167 00	55 00	224	0.76	3.14	0.55	0.42
168 00	55 00	301	5.07	3.51	0.20	1.01
168 00	55 30	330	1.63	3.68	0.44	0.73
169 00	55 30	413	0.17	4.08	1.00	0.17
169 00	56 00	231	1.02	3.44	0.31	0.32
170 00	55 30	229	0.77	2.39	0.00	0.00
170 00	56 00	195	6.18	1.55	0.00	0.03
171 00	56 00	229	1.26	1.17	0.00	0.00
171 00	56 30	271	1.01	0.55	0.00	0.00
172 00	52 30	252	5.99	1.60	0.18	1.09
172 00	56 00	416	0.94	0.79	0.00	0.00
172 00	56 30	262	0.48	1.22	0.00	0.00
173 00	52 30	240	1.60	2.20	0.50	0.80
173 00	56 30	239	1.63	0.48	0.00	0.00
173 00	57 00	221	1.79	1.35	0.02	0.04
173 00	57 30	261	11.27	0.39	0.00	0.03
174 00	57 30	185	0.47	1.46	0.33	0.16
174 00	58 00	222	1.11	0.88	0.01	0.01
174 00	58 30	219	2.56	1.34	0.00	0.00
175 00	58 00	269	5.07	1.16	0.00	0.03
175 00	58 30	265	0.78	1.42	0.00	0.00
176 00	58 00	284	2.76	1.22	0.00	0.00
176 00	58 30	254	4.01	1.81	0.00	0.01
177 00	58 30	252	13.94	1.09	0.02	0.34
177 00	59 00	242	25.81	1.10	0.00	0.00
178 00	51 30	231	1.27	3.78	0.57	0.72
178 00	58 30	246	74.79	1.46	0.00	0.00
178 00	59 00	270	18.34	0.94	0.05	0.91
178 00	59 30	243	1.02	2.05	0.30	0.31
178 00	60 00	217	2.16	2.16	0.06	0.13
178 00	60 30	208	2.60	0.79	0.00	0.00
179 00	51 00	273	0.67	4.63	0.00	0.00
179 00	51 30	249	1.18	4.87	0.09	0.11
179 00	52 00	223	1.90	4.78	0.70	1.33
179 00	52 30	230	1.70	4.26	0.60	1.01
179 00	59 30	287	0.38	2.15	0.50	0.19
179 00	60 00	263	0.86	1.84	0.00	0.00
179 00	60 30	234	2.77	2.03	0.03	0.09
180 00	51 00	259	3.30	17.41	0.67	2.20
180 00	51 30	229	15.75	1.18	0.00	0.00
180 00	52 00	245	3.59	2.55	0.25	0.91
180 00	52 30	237	1.60	3.03	0.25	0.40
180 00	54 00	238	6.60	0.71	0.10	0.66
181 00	51 30	247	0.66	2.43	0.50	0.33
181 00	54 30	153	10.63	3.14	0.00	0.00
183 00	51 30	200	2.96	3.86	0.00	0.00
183 00	52 00	188	4.53	2.76	0.48	2.17
184 00	51 30	209	3.56	2.72	0.88	3.14
184 00	52 00	213	2.46	2.53	0.38	0.92
185 00	51 30	257	4.79	2.71	0.36	1.74
185 00	52 00	176	4.53	2.42	0.25	1.15
185 00	52 30	177	3.62	3.57	0.79	2.87

Table 4.--Golden king crab catch information from foreign trawler observer data by $1/2^{\circ} \times 1^{\circ}$ blocks for October-December, 1979.

LONGITUDE	LATITUDE	DEPTH FMS	CRABS/HR	AVERAGE LBS/CRAB	PROPORTION	
					LEGAL MALES	LEGALS/HR
165 00	54 30	158	0.58	3.97	0.00	0.00
166 00	54 00	399	0.82	1.81	0.20	0.16
166 00	54 30	212	2.34	1.93	0.26	0.60
167 00	54 30	191	0.48	2.52	0.43	0.21
167 00	55 00	220	35.30	3.46	0.31	11.03
168 00	55 00	298	3.47	2.82	0.00	0.00
168 00	55 30	347	6.09	1.57	0.07	0.45
170 00	52 30	155	5.88	2.98	0.00	0.00
170 00	55 30	281	25.79	1.29	0.00	0.00
170 00	56 00	220	10.63	1.36	0.03	0.27
171 00	52 30	155	3.15	2.10	0.45	1.42
171 00	56 00	180	4.80	1.08	0.00	0.00
171 00	56 30	162	0.14	0.66	0.00	0.00
172 00	52 00	295	3.50	2.39	0.18	0.64
172 00	52 30	293	6.45	2.51	0.78	5.02
172 00	56 30	239	0.27	1.21	0.00	0.00
173 00	52 00	340	1.83	2.52	0.20	0.36
173 00	56 30	248	1.18	0.82	0.00	0.00
173 00	57 00	297	1.69	1.22	0.01	0.02
173 00	57 30	222	1.16	1.58	0.13	0.15
174 00	57 30	175	0.25	1.54	0.00	0.00
174 00	58 00	274	10.96	1.28	0.00	0.00
174 00	58 30	243	3.12	0.88	0.00	0.00
175 00	58 00	216	1.79	1.15	0.00	0.00
175 00	58 30	209	1.45	1.38	0.00	0.00
176 00	58 30	176	2.12	1.25	0.00	0.00
177 00	58 30	278	8.91	1.44	0.00	0.00
178 00	51 30	135	0.83	1.52	0.00	0.00
178 00	54 30	215	5.40	2.21	0.00	0.00
178 00	58 30	238	11.15	1.08	0.01	0.07
178 00	59 00	200	51.69	1.25	0.10	5.17
179 00	51 30	246	0.60	2.20	0.00	0.00
179 00	52 00	218	1.73	4.29	0.90	1.56
179 00	52 30	243	3.04	4.17	0.82	2.48
179 00	60 30	305	2.56	0.82	0.00	0.00
180 00	51 00	96	6.13	3.41	0.35	2.14
180 00	51 30	200	3.61	3.59	0.49	1.77
180 00	52 00	137	5.89	4.77	0.76	4.51
180 00	54 00	250	0.55	1.32	0.23	0.13
181 00	51 30	126	0.14	7.50	0.00	0.00

Table 5.--Golden king crab catch information from foreign trawler observer data by $1/2^\circ \times 1^\circ$ blocks for January-March, 1980.

LONGITUDE	LATITUDE	DEPTH FMS	CRABS/HR	AVERAGE LBS/CRAB	PROPORTION	
					LEGAL MALES	LEGALS/HR
166 00	56 00	61	15.46	5.83	0.00	0.00
168 00	55 30	277	17.50	1.92	0.05	0.85
168 00	56 00	163	4.23	2.09	0.11	0.48
169 00	55 30	417	13.56	1.86	0.07	0.95
170 00	53 00	319	13.60	3.89	0.71	9.67
171 00	56 00	294	0.68	0.86	0.00	0.00
172 00	52 30	323	2.35	4.02	0.43	1.01
172 00	56 00	273	0.65	1.44	0.00	0.00
172 00	56 30	247	1.16	2.28	0.19	0.22
173 00	52 00	365	1.21	1.89	0.36	0.44
173 00	56 30	291	2.24	1.27	0.00	0.00
173 00	57 00	252	1.57	1.74	0.00	0.00
173 00	57 30	311	2.49	1.34	0.00	0.00
174 00	57 30	251	2.90	1.21	0.00	0.00
174 00	58 00	280	7.05	1.36	0.00	0.00
174 00	58 30	136	19.41	2.11	0.08	1.62
176 00	58 30	284	9.95	1.25	0.03	0.32
177 00	58 30	235	3.49	1.81	0.00	0.00
178 00	59 00	246	16.47	1.36	0.00	0.00
178 00	59 30	242	11.12	0.92	0.00	0.00
178 00	60 00	306	4.15	1.02	0.00	0.00
179 00	52 00	163	0.87	4.22	0.54	0.47
179 00	59 30	300	0.67	0.72	0.00	0.00
179 00	60 00	298	54.20	0.42	0.00	0.00

Table 6.--Golden king crab catch information from foreign trawler observer data by $1/2^\circ \times 1^\circ$ blocks for April-June, 1980.

LONGITUDE	LATITUDE	DEPTH FMS	CRABS/HR	AVERAGE LBS/CRAB	PROPORTION	
					LEGAL MALES	LEGAL/HR
166 00	54 00	452	0.30	0.98	0.00	0.00
167 00	54 00	497	0.43	1.17	0.00	0.00
167 00	54 30	466	0.68	1.20	0.00	0.00
168 00	55 30	241	1.77	1.98	0.18	0.31
168 00	56 00	406	2.81	1.44	0.07	0.20
169 00	53 00	249	3.87	1.30	0.13	0.48
169 00	55 30	439	2.89	1.67	0.14	0.41
170 00	56 00	271	2.81	1.81	0.00	0.00
171 00	52 00	128	14.27	3.07	0.22	3.11
171 00	52 30	105	5.37	3.21	0.69	3.70
171 00	56 00	295	1.92	1.30	0.00	0.00
172 00	56 00	291	0.30	2.65	0.00	0.00
172 00	56 30	283	1.04	0.93	0.00	0.00
173 00	52 30	267	1.29	1.98	0.26	0.34
173 00	56 30	272	0.22	2.04	0.00	0.00
173 00	57 00	286	1.40	1.80	0.03	0.04
173 00	57 30	259	1.53	2.31	0.00	0.00
174 00	57 30	249	1.75	1.90	0.00	0.00
174 00	58 00	290	1.68	0.82	0.00	0.00
175 00	58 00	299	0.54	1.32	0.11	0.06
175 00	58 30	320	0.14	1.21	0.00	0.00
176 00	58 30	301	1.01	1.12	0.01	0.01
177 00	58 30	299	4.79	1.11	0.01	0.03
177 00	59 00	278	16.61	0.71	0.01	0.22
178 00	58 30	285	54.20	0.88	0.00	0.23
178 00	59 00	269	3.60	1.08	0.04	0.15
178 00	59 30	316	19.10	0.80	0.01	0.25
178 00	60 00	274	6.08	0.86	0.01	0.04
179 00	52 00	165	0.89	4.64	0.65	0.57
179 00	59 30	270	2.24	0.83	0.00	0.00
179 00	60 00	298	7.07	0.70	0.00	0.02
179 00	60 30	256	5.80	0.93	0.01	0.03
180 00	52 00	158	0.25	4.43	0.50	0.13
180 00	54 00	158	12.64	2.79	0.00	0.00
181 00	51 30	127	5.14	3.27	0.17	0.90
181 00	54 30	159	12.17	1.28	0.10	1.27
184 00	51 30	150	3.37	3.22	0.83	2.81
184 00	52 00	160	1.04	2.99	0.29	0.31
185 00	52 00	162	2.66	2.92	0.33	0.89
189 00	52 30	168	0.69	1.50	0.25	0.17

Table 7.--Golden king crab catch information from foreign trawler observer data by $1/2^\circ \times 1^\circ$ blocks for July-September, 1980.

LONGITUDE	LATITUDE	DEPTH FMS	CRABS/HR	AVERAGE LBS/CRAB	PROPORTION	
					LEGAL MALES	LEGALS/HR
167 00	55 00	359	0.40	3.09	0.33	0.13
168 00	55 00	363	8.66	1.79	0.02	0.21
168 00	55 30	273	25.32	1.80	0.04	0.92
169 00	56 00	169	11.56	1.97	0.09	1.03
170 00	52 00	158	6.07	3.40	0.43	2.60
170 00	56 00	239	5.57	1.35	0.00	0.00
171 00	56 00	264	1.54	0.97	0.04	0.05
171 00	56 30	257	0.37	1.43	0.00	0.00
172 00	51 30	127	2.09	5.81	0.80	1.67
172 00	52 30	273	6.00	1.32	0.17	1.00
172 00	56 00	259	1.76	0.93	0.00	0.00
172 00	56 30	269	0.32	1.47	0.02	0.01
173 00	56 30	273	1.37	1.03	0.04	0.05
173 00	57 00	238	2.17	1.71	0.02	0.04
173 00	57 30	248	11.84	1.01	0.00	0.00
174 00	51 30	237	1.26	2.94	0.30	0.38
174 00	57 30	270	1.35	1.09	0.00	0.00
174 00	58 00	243	7.64	0.91	0.00	0.00
174 00	58 30	253	9.50	1.33	0.00	0.00
175 00	51 30	218	1.11	2.65	0.00	0.00
175 00	58 00	263	3.93	1.43	0.00	0.00
175 00	58 30	239	2.61	1.57	0.00	0.00
176 00	58 30	222	2.50	2.06	0.00	0.00
177 00	58 30	224	3.69	1.66	0.02	0.08
177 00	59 00	234	3.38	1.39	0.06	0.19
178 00	58 30	310	2.10	1.51	0.06	0.12
178 00	59 00	252	4.60	1.28	0.05	0.25
178 00	59 30	231	2.04	0.92	0.00	0.00
178 00	60 00	212	2.18	1.41	0.07	0.14
178 00	60 30	185	3.64	1.19	0.05	0.17
179 00	60 00	244	2.29	1.21	0.00	0.00
179 00	60 30	214	2.81	1.31	0.02	0.07

Table 8.--Golden king crab catch information from foreign trawler observer data by $1/2^{\circ} \times 1^{\circ}$ blocks for October-December, 1980.

LONGITUDE	LATITUDE	DEPTH FMS	CRABS/HR	AVERAGE LBS/CRAB	PROPORTION	
					LEGAL MALES	LEGALS/HR
170 00	56 00	275	3.70	1.16	0.00	0.00
171 00	56 00	287	4.05	0.84	0.00	0.00
172 00	56 00	318	0.94	0.77	0.00	0.00
172 00	56 30	307	0.35	1.03	0.00	0.00
173 00	56 30	295	1.98	1.17	0.00	0.00
173 00	57 00	223	0.71	1.75	0.00	0.00
175 00	58 00	187	0.12	0.99	0.00	0.00
178 00	59 00	219	0.35	3.09	0.00	0.00
178 00	60 00	207	4.40	1.89	0.00	0.00
179 00	52 00	146	8.89	2.76	0.21	1.85
179 00	60 30	231	4.47	0.80	0.00	0.00
180 00	51 00	139	1.73	2.83	0.20	0.35
181 00	51 30	118	0.65	4.76	0.50	0.33
182 00	51 30	118	0.18	7.26	0.50	0.09
184 00	52 00	180	7.19	1.64	0.03	0.20
185 00	52 00	146	4.42	3.20	0.64	2.84
185 00	52 30	120	23.51	2.25	0.50	11.65
186 00	52 00	123	0.06	3.97	0.40	0.02
187 00	52 30	134	2.46	3.78	0.37	0.91
187 00	53 00	137	2.43	3.96	0.78	1.89
188 00	52 30	209	16.51	0.77	0.04	0.59
189 00	52 30	131	2.99	1.54	0.00	0.00
189 00	53 00	158	0.46	0.49	0.00	0.00