

SUMMARY OF FOREIGN FISHING OFF ALASKA
May 1 - May 20, 1977

A total of 217 individual foreign fishing and associated support ships (23 Soviet, 191 Japanese, 2 South Korean, and 1 Taiwanese) engaged in fisheries off Alaska during May. That was an increase of 110 from the previous month and a decrease of 513 from May 1976.

SOVIET ACTIVITIES

The 23 individual Soviet vessels included 18 stern trawlers, 3 refrigerated transports, 1 research vessel, and 1 rescue vessel. This is a decrease of 5 from the previous month and a decrease of 86 from May 1976.

Groundfish Trawl Fishery

The Soviet groundfish trawl fishery consisted of from 9 to 12 stern trawlers fishing in the western Aleutians. Three of these vessels spent mid-month in the Bering Sea fishing for pollock. The fishery was supported by two refrigerated transports and one tug.

Pollock and Herring Fishery

The Soviet effort for pollock consisted of 2 to 4 stern trawlers in the northern Bering Sea along the Continental Shelf edge, with an incidental catch of herring. One refrigerated transport supported the fishery during the month.

JAPANESE ACTIVITIES

The 191 individual Japanese vessels that engaged in fisheries off Alaska included 2 crab factory vessels with 12 catcher vessels, 3 fish factory vessels with 60 catcher vessels, 78 stern trawlers, 19 longliners, 9 refrigerated transports, 6 cargo vessels, and 2 tankers. This represents an increase of 113 from the previous month and a decrease of 390 from May 1976. The majority of this decrease was due to the non-arrival of the high seas salmon fleets in the Alaskan area.

Crab Fishery

Two crab factory ships and 12 catcher vessels continued to fish in Area B, just south of the Pribilof Islands. Four refrigerated transport vessels supported the fishery during the month.

Groundfish Trawl Fishery

The Japanese trawl fisheries along the Continental Shelf continued from April with independent stern trawlers operating in the Gulf of Alaska, Bering Sea and Aleutians.

The five individual stern trawlers in the Gulf operated off southeast Alaska and were supported by one cargo vessel during the month.

Nineteen stern trawlers fished for groundfish in the central Bering Sea. The major groundfish effort occurred in the Aleutians. During the third week in May, 44 independent stern trawlers checked in to the Aleutian area. They joined 9 other stern trawlers already fishing there. During the month the fishery was supported by 2 refrigerated transports, 1 cargo vessel and 1 tanker.

Pollock Fishery

Three factory ship fleets fished for pollock along the Continental Shelf in the central Bering Sea. One fleet arrived in late April, one in early May, and the other in mid-May. The fleets involved 3 factory vessels, 60 trawlers, 4 refrigerated transports, 4 cargo vessels and 1 tanker.

Sablefish Fishery

Thirteen longline vessels fished for sablefish in the Gulf of Alaska, the Aleutians Islands, and the Bering Sea. Five vessels fished in the Aleutians, and two vessels fished in the central Bering Sea near the Pribilof Islands. Six individual longline vessels operated in the Gulf of Alaska in three areas: southeast Alaska, Yakutat grounds, and Albatross Bank of Kodiak Island.

Herring Fishery

The Japanese herring gillnet fishery off the western Alaskan coastline began in the first week of May. By mid-month six vessels were fishing on Bristol Bay flats south of the area closed to herring fishing.

SOUTH KOREAN ACTIVITIES

Two longline vessels continued to fish for sablefish along the Continental Shelf edge from Kodiak Island to the eastern Aleutians.

TAIWANESE ACTIVITIES

One stern trawler began fishing for groundfish in the central Bering Sea in mid-May.

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BOARDINGS - 1977
(Jan. 1 - May 20)

	<u>Bering Sea</u>	<u>Aleutians</u>	<u>Gulf of Alaska</u>	<u>Total</u>
Japanese	57	17	66	140
USSR	19	26	9	54
ROK	<u>0</u>	<u>0</u>	<u>5</u>	<u>5</u>
Total	76	43	80	199 (GT)

(Mar. 1 - May 20)

Japanese	53	15	44	112
USSR	13	24	8	45
ROK	<u>0</u>	<u>0</u>	<u>5</u>	<u>5</u>
Total	66	39	57	162

ENFORCEMENT ACTIONS

	<u>Violations</u>	<u>Citations</u>	<u>Total</u>
Japanese	3	5	8
USSR	3	3	6
ROK	<u>0</u>	<u>1</u>	<u>1</u>
Total	6	9	15 (GT)

OFFICE OF THE ATTORNEY GENERAL
STATE OF TEXAS

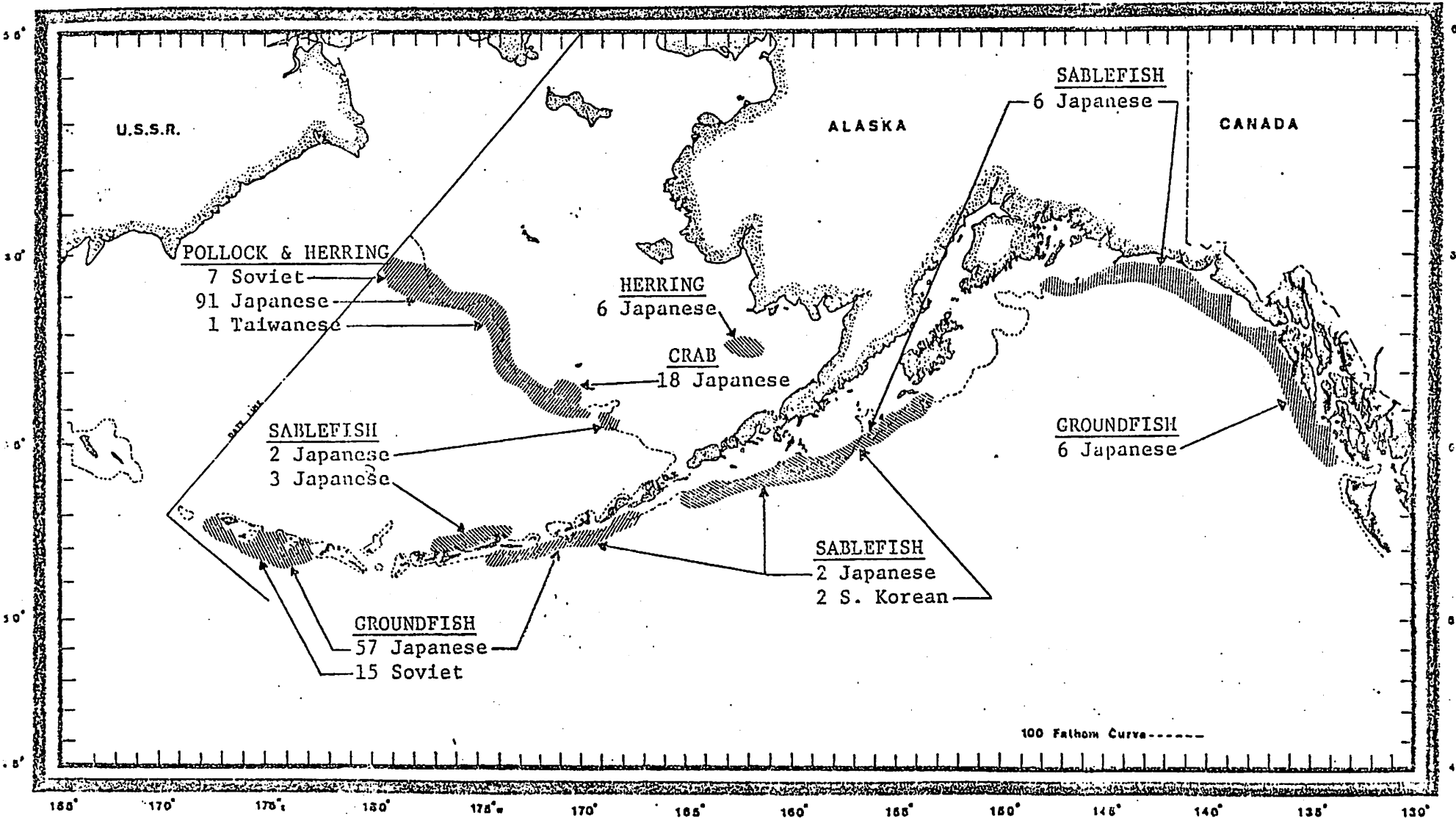
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1902	200	200	0
1903	300	300	0
1904	400	400	0
1905	500	500	0
1906	600	600	0
1907	700	700	0
1908	800	800	0
1909	900	900	0
1910	1000	1000	0

STATE OF TEXAS

DATE	AMOUNT PAID	RECEIVED	BALANCE
1911	1100	1100	0
1912	1200	1200	0
1913	1300	1300	0
1914	1400	1400	0
1915	1500	1500	0
1916	1600	1600	0
1917	1700	1700	0
1918	1800	1800	0
1919	1900	1900	0
1920	2000	2000	0

STATE OF TEXAS
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Foreign fishing off Alaska, May 1-20, 1977 by country, number of vessels, principle fishing grounds and species fished.



Technical drawing showing a side view of a mechanical part. The drawing is rendered in a dotted or wireframe style, showing the internal structure and various features like holes and chamfered edges. The part has a complex, angular shape with several protrusions and recessions. The side view shows the profile of the part, highlighting its thickness and the arrangement of its features.

VESSEL TYPE	BERING - ALEUT.					GULF					BERING - ALEUT. & GULF					TOTAL			
	JA	KS	UR	PL	TW	JA	KS	UR	PL	TW	JA	KS	UR	PL	TW	JA	KS	UR	PL
Large Stern Trawl	--	11	36	--	4	--	8	20	6	--	25	1	18	--	--	25	20	74	6
Med. Stern Trawl	176	--	--	--	--	--	--	--	--	--	15	--	--	--	--	191	--	--	--
Danish/Pair Trawl	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	80	--	--	--
Factory	8	--	2	--	--	--	--	--	--	--	--	--	--	--	--	8	--	2	--
Cargo/Transport	2	--	--	--	--	--	--	--	2	--	58	--	41	--	--	60	--	41	2
Tanker	--	--	--	--	--	--	--	--	--	--	5	--	12	--	--	5	--	12	--
Passenger	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tug	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Rescue	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--
Longliner	--	--	--	--	--	--	--	--	--	--	22	7	--	--	--	22	7	--	--
Crab/Snail Pot	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	--	--	--
TOTALS	318	11	42	--	4	--	8	20	8	--	125	8	71	--	--	443	27	133	8

Country	No. of Vessel Permits		No. of Vessels Off Alaska		
	Requested	Approved	1976	1975	1974
Japan	458 ^{1/}	443 ^{1/}	533 ^{1/}	380 ^{1/}	435 ^{1/}
USSR	301	133	471	459	448
Korea	77	27	53	21	43
Poland	14	8	0	3	1
Taiwan	29	4	24	2	1
Total	872	615	1081	865	928

Prepared by
National Marine Fisheries
Law Enforcement Branch
May 25, 1977

SUMMARY OF FOREIGN FISHING PERMITS--1977

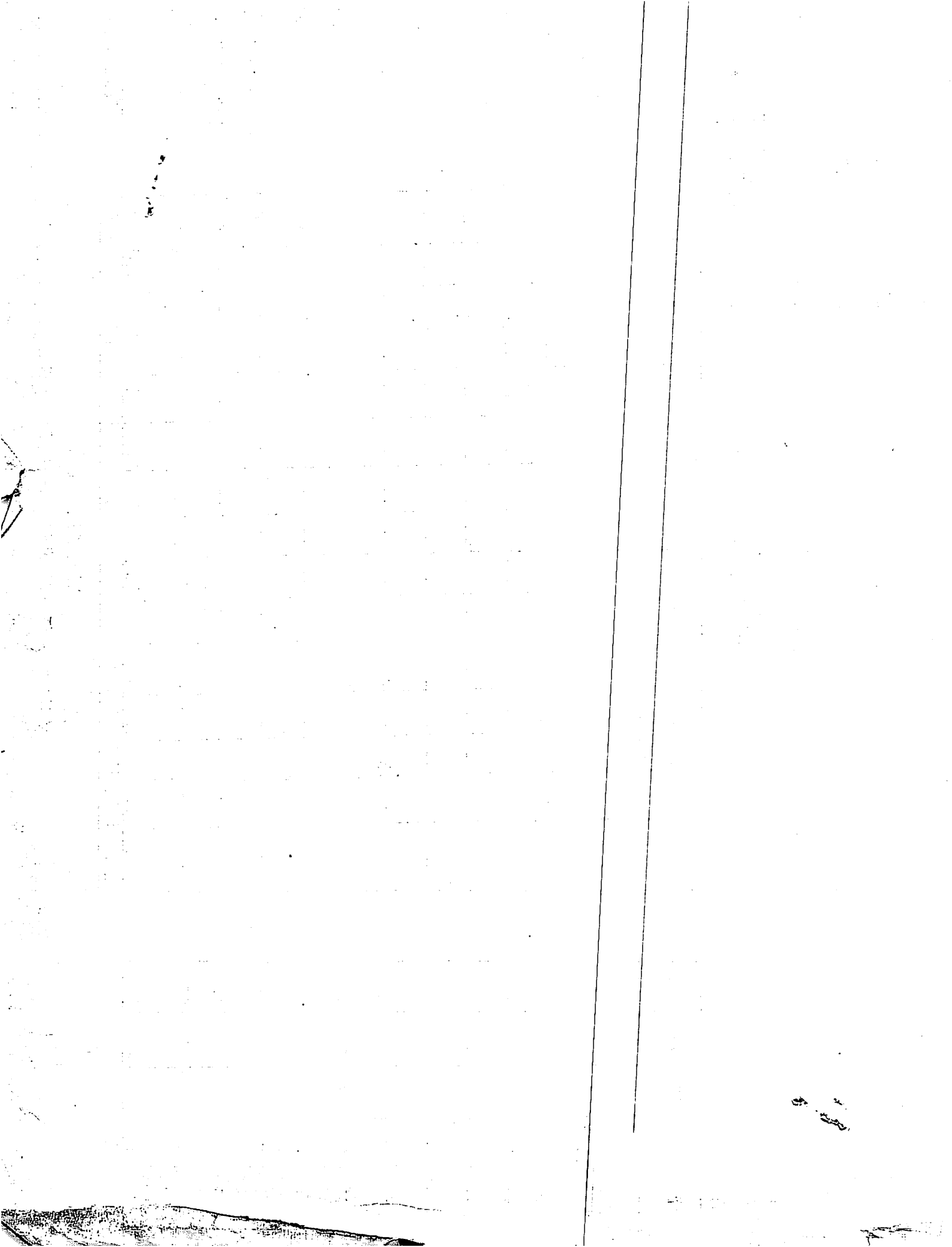
PERMITTED AREA

VESSEL TYPE	BERING - ALEUT.					GULF					BERING - ALEUT. & GULF					TOTAL				
	JA	KS	UR	PL	TW	JA	KS	UR	PL	TW	JA	KS	UR	PL	TW	JA	KS	UR	PL	TW
e Stern Trawl	--	11	36	--	4	--	8	20	6	--	25	1	18	--	--	25	20	74	6	4
Stern Trawl	176	--	--	--	--	--	--	--	--	--	15	--	--	--	--	191	--	--	--	--
sh/Pair Trawl	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	80	--	--	--	--
ory	8	--	2	--	--	--	--	--	--	--	--	--	--	--	--	8	--	2	--	--
o/Transport	2	--	--	--	--	--	--	--	2	--	58	--	41	--	--	60	--	41	2	--
er	--	--	--	--	--	--	--	--	--	--	5	--	12	--	--	5	--	12	--	--
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ue	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--
liner	--	--	--	--	--	--	--	--	--	--	22	7	--	--	--	22	7	--	--	--
/Snail Pot	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	--	--	--	--
TOTALS	318	11	42	--	4	--	8	20	8	--	125	8	71	--	--	443	27	133	8	4

Country	No. of Vessel Permits		No. of Vessels Off Alaska		
	Requested	Approved	1976	1975	1974
Japan	458 ^{1/}	443 ^{1/}	533 ^{1/}	380 ^{1/}	435 ^{1/}
USA	301	133	471	459	448
Greenland	77	27	53	21	43
Other	14	8	0	3	1

Prepared by
National Marine Fisheries Service
Law Enforcement Branch

May 25, 1977





U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest and Alaska Fisheries Center
Kodiak Facility
P. O. Box 1638
Kodiak, Alaska 99615

25 May 1977

TO: Dr. Francis Fukuhara, Director, REFM Division, NWAFC
FM: Dr. Alan Beardsley, Director, Kodiak Facility, NWAFC
SUBJ: Japanese Snow Crab Fishery

In recent weeks there has been considerable industry interest in subject fishery in the eastern Bering Sea. Information on fishing areas, species composition of the catch-to-date, and the projected date of termination of fishing has been specifically requested. This memorandum is a summary of current available information on these subjects and can be distributed to any one interested.

The rules and regulations concerning the 1977 foreign crab fishery are contained in the Federal Register (FR), Vol. 42. No. 29 on page 8841 (Attachment A) as well as in the Preliminary Fishery Management Plan (PFMP) on crab. The principal difference between the FR and the PFMP is that the northern boundry of A and B areas is 58-09 N in the FR as opposed to 58-00 N in the PFMP. In addition many people have understood the following section of the PFMP:

"No more than 8,100 metric tons of snow (Tanner crab) may be taken by foreign fishermen from the area east of 173° W longitude and south of 58° N latitude"

to mean the two boundries were simutaneously in effect, i.e., there would be no fishing at any time east of 173° W or south of 58° N for the 4,400 metric ton allocation outside the A and B quota areas. However, the FR specifically states that the 4,400 metric tons can be harvested south of 58° N as long as the vessels remain west of 173° W and east of 173°W as long as vessels remain north of 58-09 N. Incidentally the Japanese Fishery Agency has further divided the 4,400 metric tons between two crab fleets, allowing the factoryships to catch 1,673 metric tons in the area east of 175° W and the independent vessels 2,727 metric tons west of 175° W. Areas and quotas as defined in the FR are shown in Attachment B.



Factoryship catches through May 25 are shown in Attachment C. Using average catch rates through May 20, the following days remaining by area and completion dates for the factoryship fishery are projected.

	<u>Keiko Maru</u>	<u>Koyo Maru</u>
Area A	0	20
Area B	48	38
Area C	<u>25</u>	<u>24</u>
	73 days (August 1)	82 days (August 10)

These figures are based on the assumption the Koyo Maru goes back to Area A to complete her remaining 476 metric tons at a catch rate of 23.4 metric tons per day. In addition catch rates in Area C are estimated to be the same as in Area B although from NMFS information on the distribution and abundance of snow crab in the Bering Sea (Attachment D) we suspect reduced harvest rates in C as compared to B which would require additional time for harvest. We cannot even make an educated guess at the time required by the independent vessels to harvest the 2,727 metric tons of crab although we know 11 boats will be fishing beginning about June 1.

Information contained in the 10-day reports of the factoryships as required by the PFMP and FR are presented in Attachment E. This table indicates catches in the A quota area exceeded 95% Chionoecetes bairdi and in the B quota area C. bairdi constituted about 43% of the catch. Information in Attachment D suggests some C. bairdi will also be taken in areas C and D.

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Subpart G—North Pacific Ocean and Bering Sea

611.90 Crabs.

(a) Purpose. Regulations of this section shall apply to: Red king crab (*Paralithodes camtschatica*), Blue king crab (*Paralithodes platypus*), brown king crab (*Lithodes aequispina*), snow (Tanner) crabs (*Chionoecetes bairdi* and *C. opilio*), taken by foreign fishing vessels with a valid permit during the period March 1, 1977 to December 31, 1977 within the North Pacific Ocean and Bering Sea over which the United States exercises exclusive fishery management authority. Unless otherwise defined herein, all other terms used in this Subpart will have the meanings ascribed to them in Subpart A of these regulations.

(b) Area quotas. (1) No more than 12,500 metric tons of snow (Tanner) crab may be taken by foreign fishing vessels from that portion of the Bering Sea area over which the United States exercises fishing jurisdiction north of 56° 00' N. lat. and west of 164° W. long. Of this 12,500 metric ton quota:

(i) No more than 2,500 metric tons of snow (tanner) crab may be taken by foreign fishing vessels from the area bounded by straight lines connecting the following coordinates in the order listed:

58°09' N. lat.—164°00' W. long.; 57°00' N. lat.—168°00' W. long.; 57°40' N. lat.—169°50' W. long.; 57°40' N. lat.—170°50' W. long.; 57°00' N. lat.—170°50' W. long.; 56°20' N. lat.—169°55' W. long.; 56°20' N. lat.—168°00' W. long.; 56°00' N. lat.—168°00' W. long.; 56°00' N. lat.—164°00' W. long.; 58°09' N. lat.—164°00' W. long.; and

(ii) At least 4,400 metric tons must be taken from the area located to the north and west of straight lines drawn between the following coordinates:

56°00' N. lat.—173°00' E. long.; 58°00' N. lat.—173°00' W. long.; 58°09' N. lat.—173°00' W. long.; 58°09' N. lat.—164°00' W. long.; north along 164°00' W. long. to a distance of 12 nautical miles from the baseline used to measure the U.S. Territorial Sea.

(c) Open season. The open season for crab fishing by foreign vessels in the Bering Sea area over which the United States exercises fishery management authority shall begin at 0801 GMT on March 1, 1977, and terminate at a time and date to be determined and announced under paragraph (d).

(d) Closed season and areas. (1) The National Marine Fisheries Service shall maintain records of vessel days and catch of foreign vessels fishing for species under this section. Upon determination by the Director that foreign fishing vessels of a country have taken their assigned allocation of crab, notification of such determination shall be given to the appropriate agent or a government official of the country not less than 48 hours prior to the closure of such fishery. Upon notification, foreign fishing vessels shall cease the directed fishing for crab as of the specified closure date.

(2) It shall be unlawful for any foreign fishing vessel to fish for crabs at any time east of 164° W. Longitude and south of 56°00' N. Latitude in the Bering Sea, throughout the Northeastern Pa-

cific Ocean, and within 12 miles of the baselines used to measure the U.S. Territorial Sea.

(e) Gear restrictions. It shall be unlawful for any foreign fishing vessels fishing in the authorized area for crabs to use gear other than pots. A pot is a portable structure designed and constructed to capture and retain crabs alive in the water.

(f) Statistical reporting. The owner or operator of any foreign fishing vessel shall maintain catch and effort statistics and shall report the information, through its government, to the Director, Alaska Region, National Marine Fisheries Service, Juneau, Alaska, U.S.A. 99801.

(1) Annual. Each nation whose fishermen operate in the area shall report by May 30 of the following year, annual catch and effort statistics as follows: Effort in pots hauled and hours pots soaked Catch in metric tons and number of crabs. Each to be supplied by vessel class, by 10-day period, by ½° (lat.) by 1° (long.) statistical area, by the following species: Snow (Tanner) crab (*Chionoecetes bairdi* and *C. opilio*), and any other crab species.

(2) 10-day Periods. Each country will report within 3 days following each 10-day fishing period, provisional 10-day fishery information as follows: Effort in total pot lifts; and Catch in metric tons and number of crabs of *C. opilio* and *C. bairdi* separated by the area described in (b) (2) and by the area outside that described in (b) (2).

(g) Restrictions. No master or any other person in charge of any foreign vessel engaged in fishing for crabs under this subpart shall:

(1) Conduct a directed fishery for, or retain any species of crab other than snow (tanner) crabs;

(2) Process crabs except on designated factory ships;

(3) Retain and process female or soft shell crabs; any crabs not retained must be discarded immediately after the pots are taken aboard in a manner that will minimize mortality;

(4) Take aboard crabs in a manner in which the observer can not verify the total weight of crabs taken aboard.

(h) Loading zones. Loading and other support operations are permitted by foreign vessels during 1977, seaward of three nautical miles from the baseline from which the United States territorial sea is measured:

(1) Near Forrester Island, Alaska, in the waters bounded on the north by 54°-54' North Latitude, on the east by 133°16' West Longitude, and on the south 54°44' N. lat., from March 1, 1977, to December 1, 1977, inclusive.

(2) One the east side of Kayak Island, Alaska, in the waters between 58°48' North Latitude and 59°56' North Latitude west of 143°53' West Longitude and on the west side of Kayak Island in the waters between 59°52' North Latitude and 60°07' North Latitude east of 145° W. long., from March 1, 1977, to December 1, 1977, inclusive.

(3) North of Tonki Cape on Afognak Island, Alaska, in the waters bounded

on the north by 58°35' North Latitude, on the south by 58°25' North Latitude, on the west by 152°02' West Longitude and on the east by 151°52' W. long., from March 1, 1977, to December 1, 1977, inclusive.

(4) North and west of Sanak Island, Alaska, in the waters bounded on the north by 54°36' North Latitude, on the south by 54°26' North Latitude, on the west by 163°05' West Longitude and on the east by 162°40' W. long., from March 1, 1977, to December 1, 1977, inclusive.

(5) On the south side of Unalaska Island, Alaska, in the waters between 167°-18' West Longitude and 167°40' West Longitude, from March 1, 1977 to October 14, 1977 inclusive.

(6) On the north side of Unalaska Island, Alaska, in the waters between 167°15' West Longitude and 167°35' West Longitude, from March 1, 1977 to October 14, 1977 inclusive.

(7) On the south side of Umnak Island, Alaska, in the waters between 168° 15' West Longitude and 168°30' West Longitude, from October 15, 1977 to December 31, 1977 inclusive.

(8) On the north side of Umnak Island, Alaska, in the waters between 168° 25' West Longitude and 168°40' West Longitude and between 168°50' West Longitude and 169° West Longitude, from October 15, 1977 to December 31, 1977 inclusive.

(9) Off St. George Island of the Pribilof Islands, Alaska, from March 1, 1977 to April 30, 1977 and November 1, 1977 to December 31, 1977 inclusive.

(10) On the north side of St. Matthew Island, Alaska, in the waters between 172°29' West Longitude, and 172° 46' W. longitude, and on the south side of St. Matthew Island, Alaska, in the waters between 172°17' West Longitude, and 172°35' West Longitude, and in the waters between 172°54' West Longitude, and 173°04' West Longitude.

§ 611.96 Gulf of Alaska Trawl Fishery.

(a) Purpose. Regulations of this section shall apply to all species of fish taken in trawl gear during the period March 1, 1977 to December 31, 1977 in the Gulf of Alaska which includes that portion of the North Pacific Ocean, exclusive of the Bering Sea, between 132°40' N. Lat. and 170° W. longitude. Unless otherwise defined herein, all other terms used in this section will have the meanings ascribed to them in subpart A of these regulations.

(b) Catch quota. The 1977 maximum catch quotas for foreign fishermen in the Gulf of Alaska are as follows:

Species:	Catch quota (metric tons)
Pollock	149,000
Pacific ocean perch	29,000
Other rockfishes	4,000
Flounders	20,500
Sablefish	(1)
Atka mackerel	22,000
Pacific cod	2,300
Others (combination)	16,200

¹ Incidental trawl catch not to exceed 2 percent.

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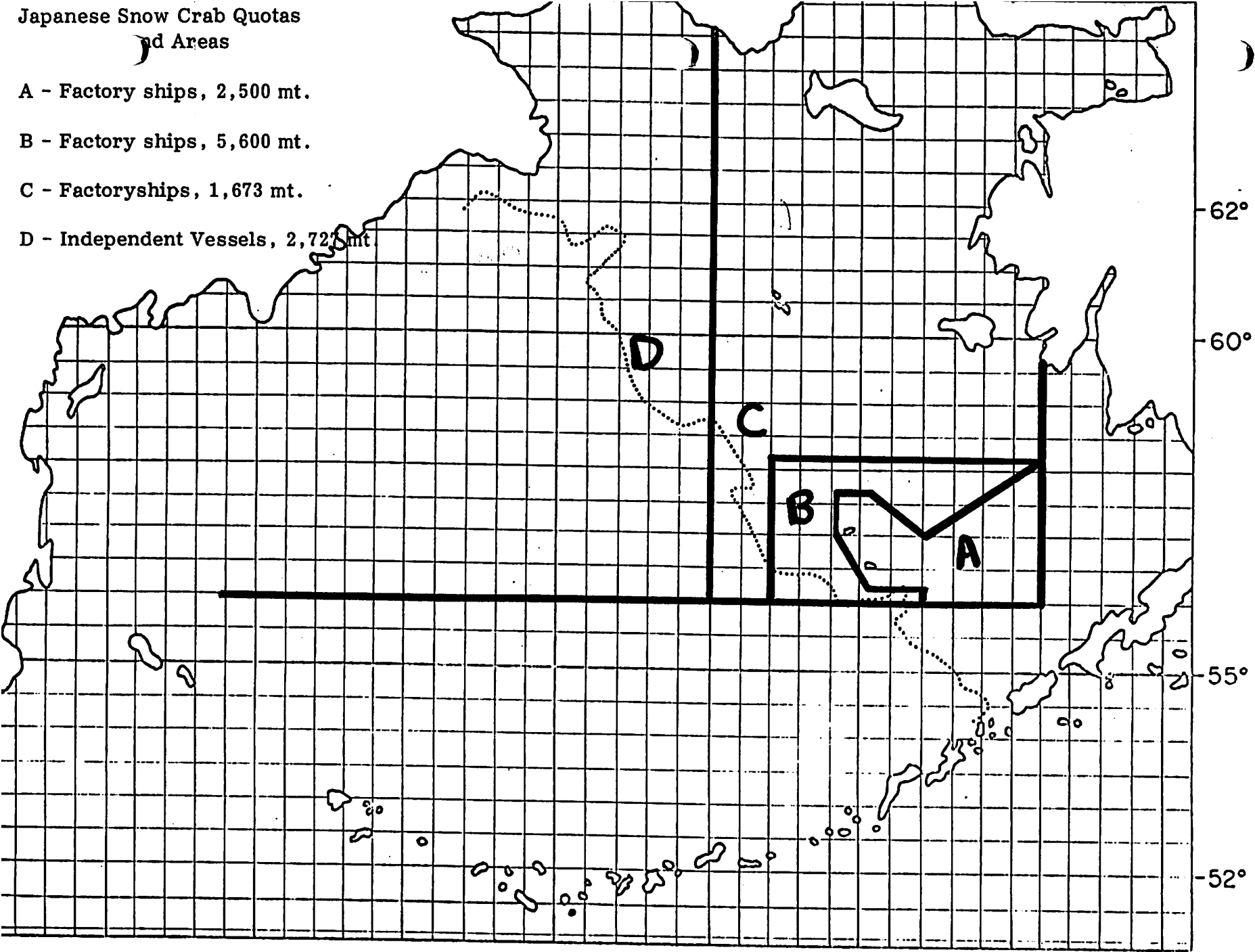
Japanese Snow Crab Quotas and Areas

A - Factory ships, 2,500 mt.

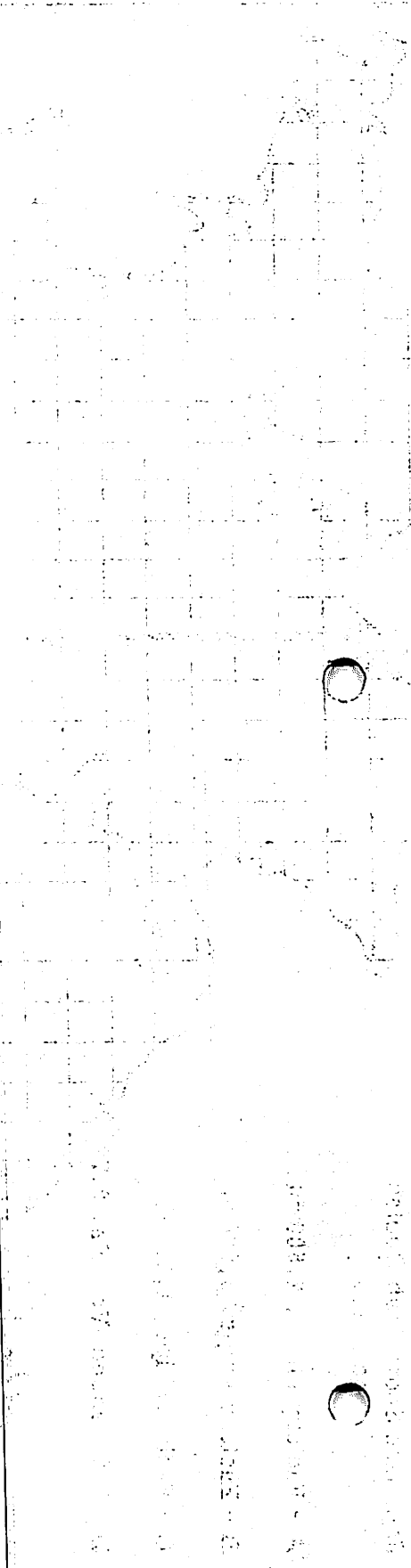
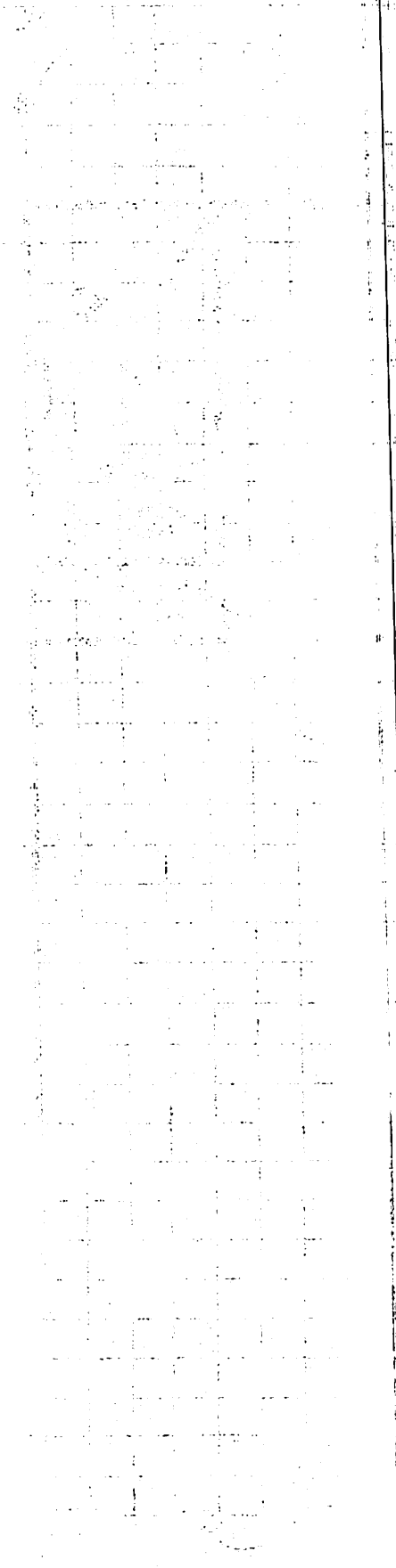
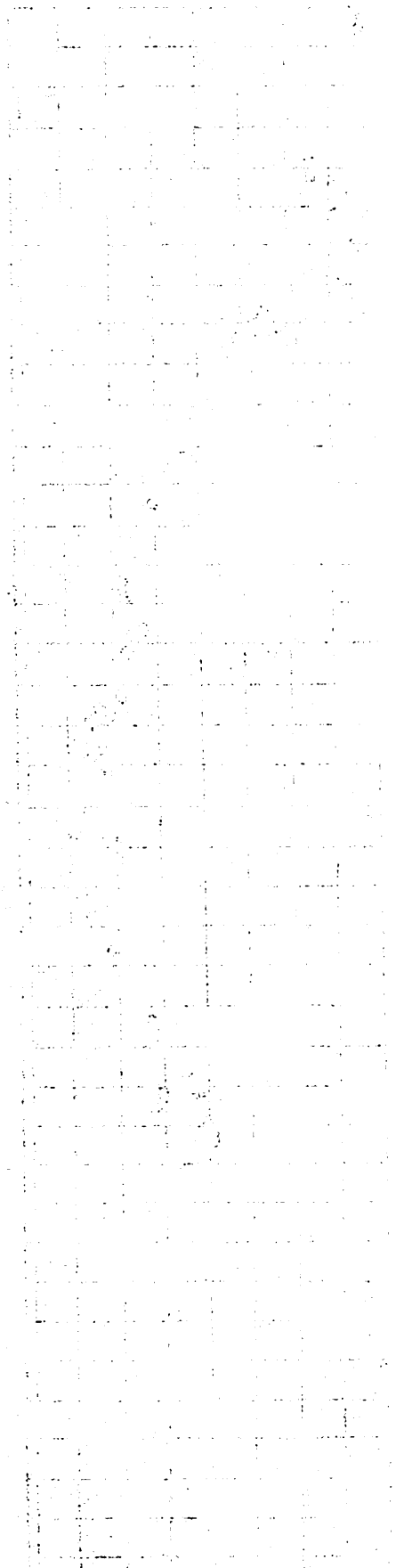
B - Factory ships, 5,600 mt.

C - Factoryships, 1,673 mt.

D - Independent Vessels, 2,725 mt.



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Japanese Tanner Crab Landings (Metric Tons)
Eastern Bering Sea, 1977

Date (Tokyo time)	<u>Keiko Maru</u>				<u>Koyo Maru</u>			
	<u>Position</u>		<u>Daily catch</u>	<u>Accum. catch</u>	<u>Position</u>		<u>Daily catch</u>	<u>Accum. catch</u>
	N	W			N	W		
March 10					56-04	164-19	2.145	2.145
March 11					56-06	164-10	1.230	3.375
March 12	56-07	164-19	10.930	10.930	57-07	164-06	9.655	13.030
March 13	56-03	164-34	20.845	31.775	56-08	164-06	15.100	28.130
March 14	56-06	164-31	47.900	79.675	56-04	164-16	27.570	55.700
March 15	56-05	164-18	32.540	112.215	56-16	164-06	21.635	77.335
March 16	57-00	162-46	0	112.215	56-16	164-02	0	77.335
March 17	56-04	164-27	33.915	146.130	56-07	164-20	22.670	100.005
March 18	56-06	164-23	43.435	189.565	56-05	164-13	27.880	127.885
March 19	56-03	164-27	50.715	240.280	56-06	164-10	30.095	157.980
March 20	56-05	164-27	45.150	285.430	56-05	164-21	30.355	188.335
March 21	56-04	164-33	47.980	333.410	56-02	164-17	32.330	220.665
March 22	56-02	164-36	44.510	377.920	56-08	164-09	32.340	253.005
March 23	56-03	164-40	37.140	415.060	56-09	164-23	27.270	280.275
March 24	56-05	164-40	43.590	458.650	56-05	164-08	39.550	319.825
March 25	56-05	164-24	38.020	496.670	56-06	164-36	22.175	342.000
March 26	56-03	164-41	46.050	542.720	56-08	164-25	24.170	366.170
March 27	56-05	164-35	36.245	578.965	56-86	164-30	26.668	392.838
March 28	56-03	164-37	50.010	628.975	56-06	164-33	30.705	423.543

ATTACHMENT C

Account	Balance	Debit	Credit	Balance
100-100000	100.00			100.00
100-100001		100.00		
100-100002			100.00	100.00
100-100003		100.00		
100-100004			100.00	100.00
100-100005		100.00		
100-100006			100.00	100.00
100-100007		100.00		
100-100008			100.00	100.00
100-100009		100.00		
100-100010			100.00	100.00
100-100011		100.00		
100-100012			100.00	100.00
100-100013		100.00		
100-100014			100.00	100.00
100-100015		100.00		
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<u>Keiko Maru</u>					<u>Koyo Maru</u>			
<u>Date (Tokyo time)</u>	<u>Position</u>		<u>Daily catch</u>	<u>Accum. catch</u>	<u>Position</u>		<u>Daily catch</u>	<u>Accum. catch</u>
	N	W			N	W		
March 23	56-03	164-40	37.140	415.060	56-09	164-23	27.270	280.275
March 24	56-05	164-40	43.590	458.650	56-05	164-08	39.550	319.825
March 25	56-05	164-24	38.020	496.670	56-06	164-36	22.175	342.000
March 26	56-03	164-41	46.050	542.720	56-08	164-25	24.170	366.170
March 27	56-05	164-35	36.245	578.965	56-86	164-30	26.668	392.838
March 28	56-03	164-37	50.010	628.975	56-06	164-33	30.705	423.543
March 29	56-06	164-36	11.180	640.155	56-11	164-14	13.260	436.803
March 30	56-04	164-42	47.205	687.360	56-07	164-16	28.235	465.038
March 31	56-04	164-42	52.270	739.630	56-09	164-26	27.670	492.708
April 1	56-05	165-00	12.624	752.254	56-03	164-32	8.745	501.453
April 2	56-04	164-41	51.846	804.100	56-05	164-47	28.315	529.768
April 3	56-02	164-35	55.344	859.444	56-04	164-31	26.355	556.123
April 4	56-04	164-40	38.478	897.922	56-14	164-13	23.240	579.363
April 5	56-03	164-40	48.960	946.882	56-03	164-37	13.225	592.588
April 6	56-04	164-40	49.614	996.496	56-07	164-30	24.310	616.898
April 7	56-04	164-40	52.232	1,048.728	56-15	164-22	25.925	642.823
April 8	56-04	164-40	48.654	1,097.382	56-10	164-10	35.126	677.949
April 9	56-05	164-40	50.52	1,147.902	56-17	164-07	39.960	717.909
April 10	56-05	164-40	44.816	1,192.718	56-07	164-08	30.135	748.044
April 11	56-05	164-40	39.454	1,232.172	56-32	172-23	1.360	1.360
April 12	56-03	164-46	44.209	1,276.381	56-29	170-25	2.245	3.605

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Keiko MaruKoyo Maru

<u>Date (Tokyo time)</u>	<u>Position</u>		<u>Daily catch</u>	<u>Accum. catch</u>	<u>Position</u>		<u>Daily catch</u>	<u>Accum. catch</u>
	<u>N</u>	<u>W</u>			<u>N</u>	<u>W</u>		
April 13	56-28	170-16	∅	∅	56-19	169-57	20.285	23.890
April 14	56-40	170-30	14.734	14.734	56-29	170-29	27.360	51.250
April 15	56-29	170-21	13.385	28.119	56-33	170-35	27.090	78.340
April 16	56-15	169-53	25.576	53.695	56-38	170-23	35.770	114.110
April 17	56-42	170-28	45.164	98.859	56-28	170-26	46.020	160.130
April 18	56-39	170-28	30.740	129.599	56-24	170-08	49.115	209.245
April 19	56-12	169-57	56.724	187.32	56-29	170-30	36.280	245.530
April 20	56-36	170-34	30.047	217.37	56-31	170-28	42.240	287.770
April 21	56-32	170-30	29.707	247.08	56-22	170-06	35.880	323.65
April 22	56-13	169-53	70.905	317.980	56-22	170-09	45.115	368.77
April 23	56-32	170-26	25.992	343.970	56-28	170-15	40.090	408.860
April 24	56-27	170-28	36.96	380.930	56-23	170-05	44.310	453.170
April 25	56-16	170-02	54.124	435.060	56-24	170-08	36.295	489.460
April 26	56-22	170-04	26.87	461.930	56-22	170-15	43.475	532.935
April 27	56-23	170-08	50.551	512.511	56-22	170-22	44.930	577.865
April 28	56-16	170-05	23.71	536.261	56-20	170-00	35.870	613.735
April 29	56-19	170-20	25.260	561.521	56-42	170-09	29.592	643.327
April 30	56-18	170-08	44.336	605.857	56-33	170-26	40.180	683.507
May 1	56-19	170-08	38.752	644.609	56-24	170-28	43.935	727.442
May 2	56-19	170-08	25.346	699.955	56-37	170-35	39.585	767.027
May 3	56-19	170-08	43.425	713.380	56-34	170-28	37.705	804.732
May 4	56-19	170-08	42.717	256.097	56-32	170-26	38.160	842.892
May 5	56-12	170-22	∅		56-17	170-18	17.345	860.237

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Vertical text or header information, possibly a page number or document title, located along the right edge of the page.

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Keiko MaruKoyo Maru

<u>Date (Tokyo time)</u>	<u>Position</u>		<u>Daily catch</u>	<u>Accum. catch</u>
	<u>N</u>	<u>W</u>		
May 6	56-07	170-05	∅	
May 7	56-18	169-57	53.280	809.377
May 8	56-17	170-00	43.306	852.683
May 9	56-19	170-09	33.404	886.167
May 10	56-21	170-14	20.404	906.571
May 11	15-21	170-15	25.787	932.358
May 12	56-27	170-17	24.54	956.898
May 13	56-38	170-28	44.173	1001.071
May 14	56-30	170-20	29.258	1030.329
May 15	56-23	160-43	24.385	1054.714
May 16	57-07	170-59	42.165	1096.879
May 17	57-11	171-00	43.202	1140.081
May 18	57-00	170-59	42.648	1182.730
May 19	56-01	161-06	41.450	1224.18
May 20	57-02	171-08	21.988	1246.17
May 21	56-01	171-02	43.039	1289.21
May 22	56-58	171-00	34.986	1324.19
May 23	56-59	171-17	41.994	1366.19
May 24	56-56	171-12	39.234	1405.42
May 25	57-01	171-10	32.233	1436.65

<u>Position</u>	<u>Daily catch</u>	<u>Accum. catch</u>	
			<u>N</u>
56-11	170-22	∅	
56-19	170-17	34.060	894.297
56-24	170-10	39.020	933.317
56-32	170-25	40.785	974.102
56-28	170-28	39.095	1013.197
56-25	170-24	37.305	1050.502
56-31	170-43	34.260	1084.762
56-30	170-48	36.475	1121.237
56-35	170-55	46.405	1167.642
56-37	170-54	55.625	1223.267
56-18	170-21	46.960	1270.227
56-48	170-00	29.645	1299.872
56-48	171-00	27.900	1327.77
56-38	171-21	46.220	1373.99
56-41	171-22	51.935	1425.93
56-51	171-04	55.450	1481.38
56-46	171-11	52.105	1533.48
56-53	171-07	46.955	1580.44
56-53	171-12	52.810	1633.25
56-54	171-11	49.60	168285

Table 1

Year	Population (millions)	Urban population (millions)	Rural population (millions)	Urban % of total
1950	153.0	78.0	75.0	51.0
1955	165.0	95.0	70.0	57.6
1960	178.0	110.0	68.0	61.8
1965	190.0	125.0	65.0	65.8
1970	205.0	140.0	65.0	68.3
1975	220.0	155.0	65.0	70.5
1980	235.0	170.0	65.0	72.3
1985	250.0	185.0	65.0	74.0
1990	265.0	200.0	65.0	75.5
1995	280.0	215.0	65.0	76.8
2000	295.0	230.0	65.0	77.9
2005	310.0	245.0	65.0	79.0
2010	325.0	260.0	65.0	80.0
2015	340.0	275.0	65.0	80.9
2020	355.0	290.0	65.0	81.7

Year	Population (millions)	Urban population (millions)	Rural population (millions)	Urban % of total
1950	153.0	78.0	75.0	51.0
1955	165.0	95.0	70.0	57.6
1960	178.0	110.0	68.0	61.8
1965	190.0	125.0	65.0	65.8
1970	205.0	140.0	65.0	68.3
1975	220.0	155.0	65.0	70.5
1980	235.0	170.0	65.0	72.3
1985	250.0	185.0	65.0	74.0
1990	265.0	200.0	65.0	75.5
1995	280.0	215.0	65.0	76.8
2000	295.0	230.0	65.0	77.9
2005	310.0	245.0	65.0	79.0
2010	325.0	260.0	65.0	80.0
2015	340.0	275.0	65.0	80.9
2020	355.0	290.0	65.0	81.7

Year	Population (millions)	Urban population (millions)	Rural population (millions)	Urban % of total
1950	153.0	78.0	75.0	51.0
1955	165.0	95.0	70.0	57.6
1960	178.0	110.0	68.0	61.8
1965	190.0	125.0	65.0	65.8
1970	205.0	140.0	65.0	68.3
1975	220.0	155.0	65.0	70.5
1980	235.0	170.0	65.0	72.3
1985	250.0	185.0	65.0	74.0
1990	265.0	200.0	65.0	75.5
1995	280.0	215.0	65.0	76.8
2000	295.0	230.0	65.0	77.9
2005	310.0	245.0	65.0	79.0
2010	325.0	260.0	65.0	80.0
2015	340.0	275.0	65.0	80.9
2020	355.0	290.0	65.0	81.7

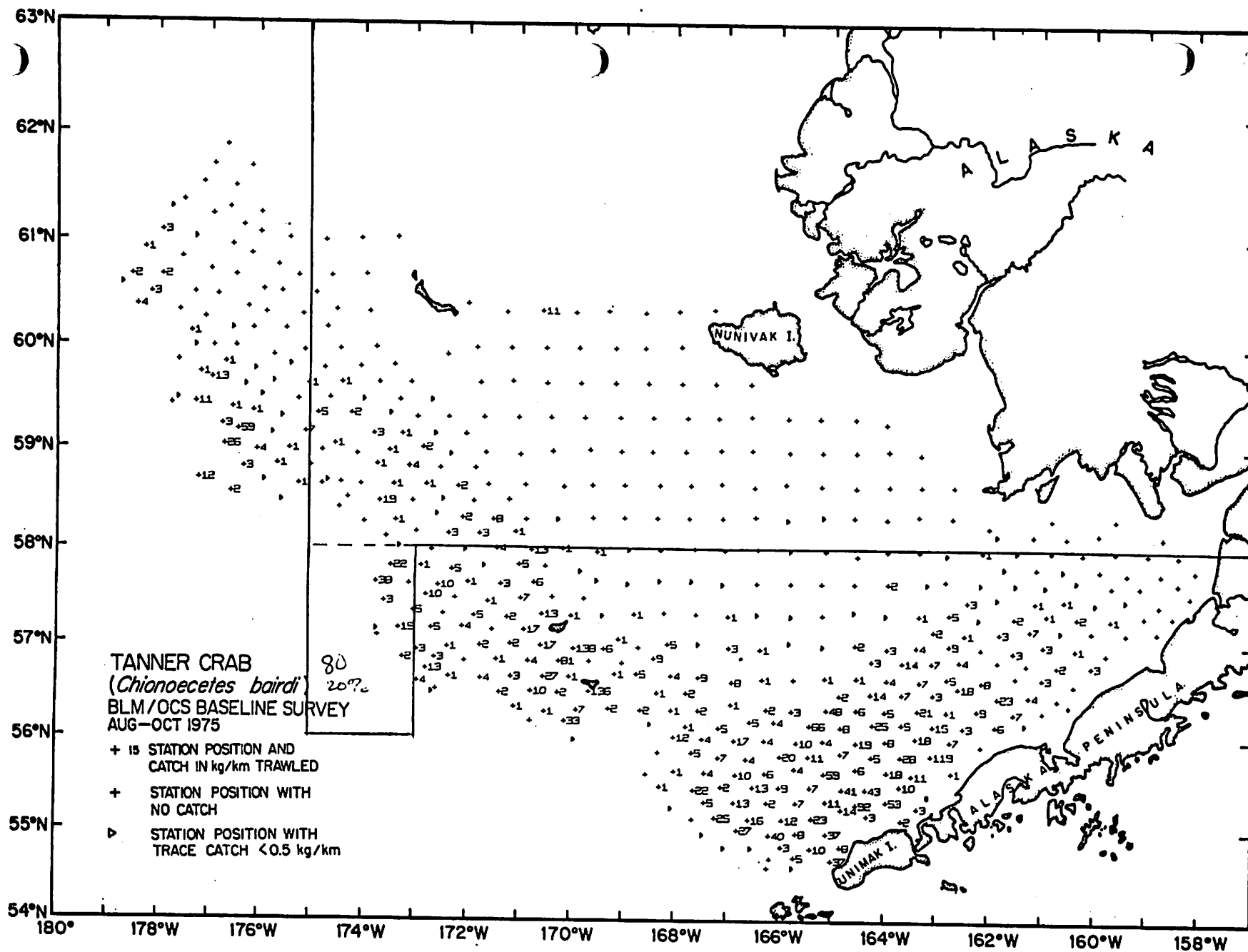


Figure IX-96.—Distribution of catch rates by weight of Tanner crab (*C. bairdi*) in the eastern Bering Sea (BLM/OCS survey, 1975).

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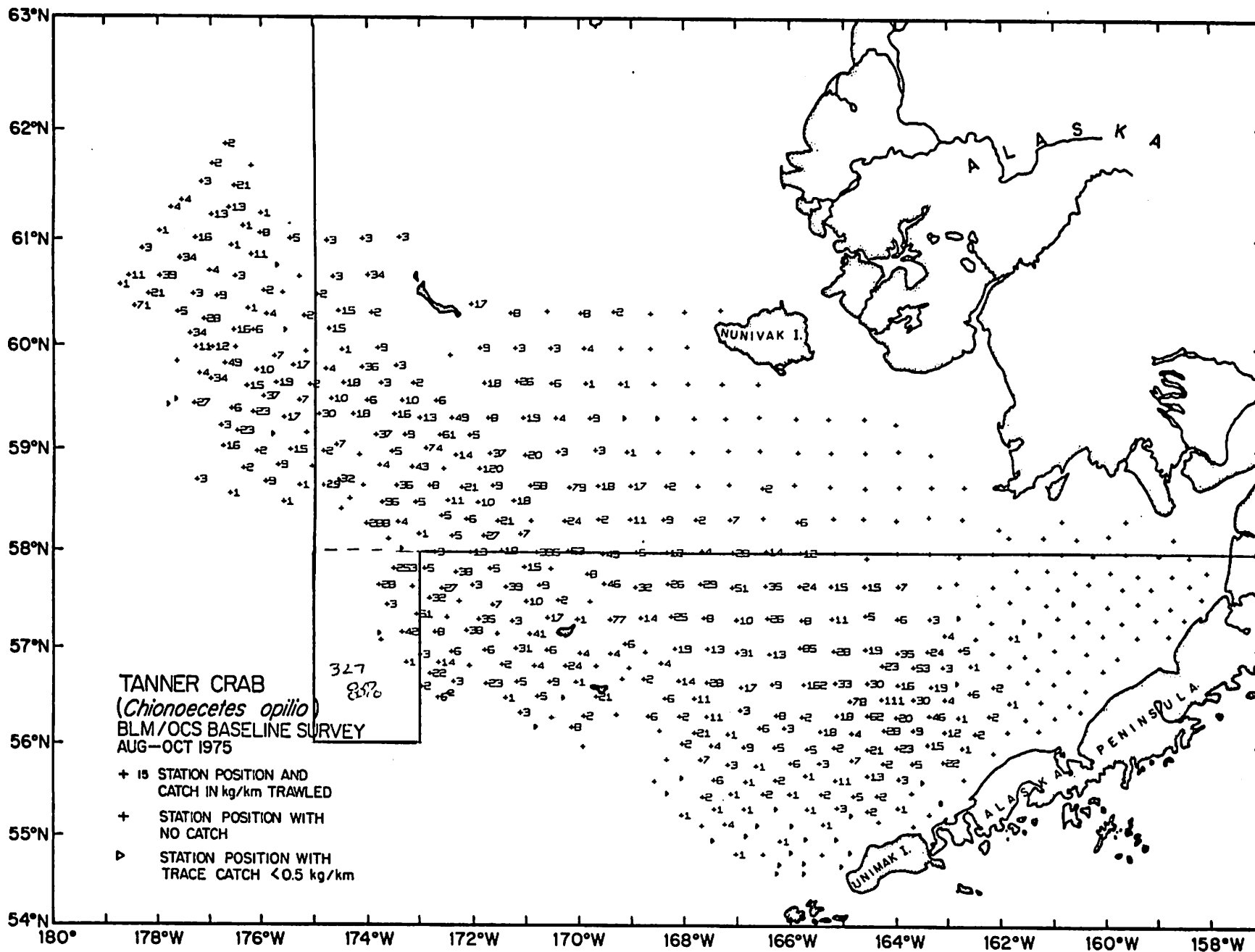
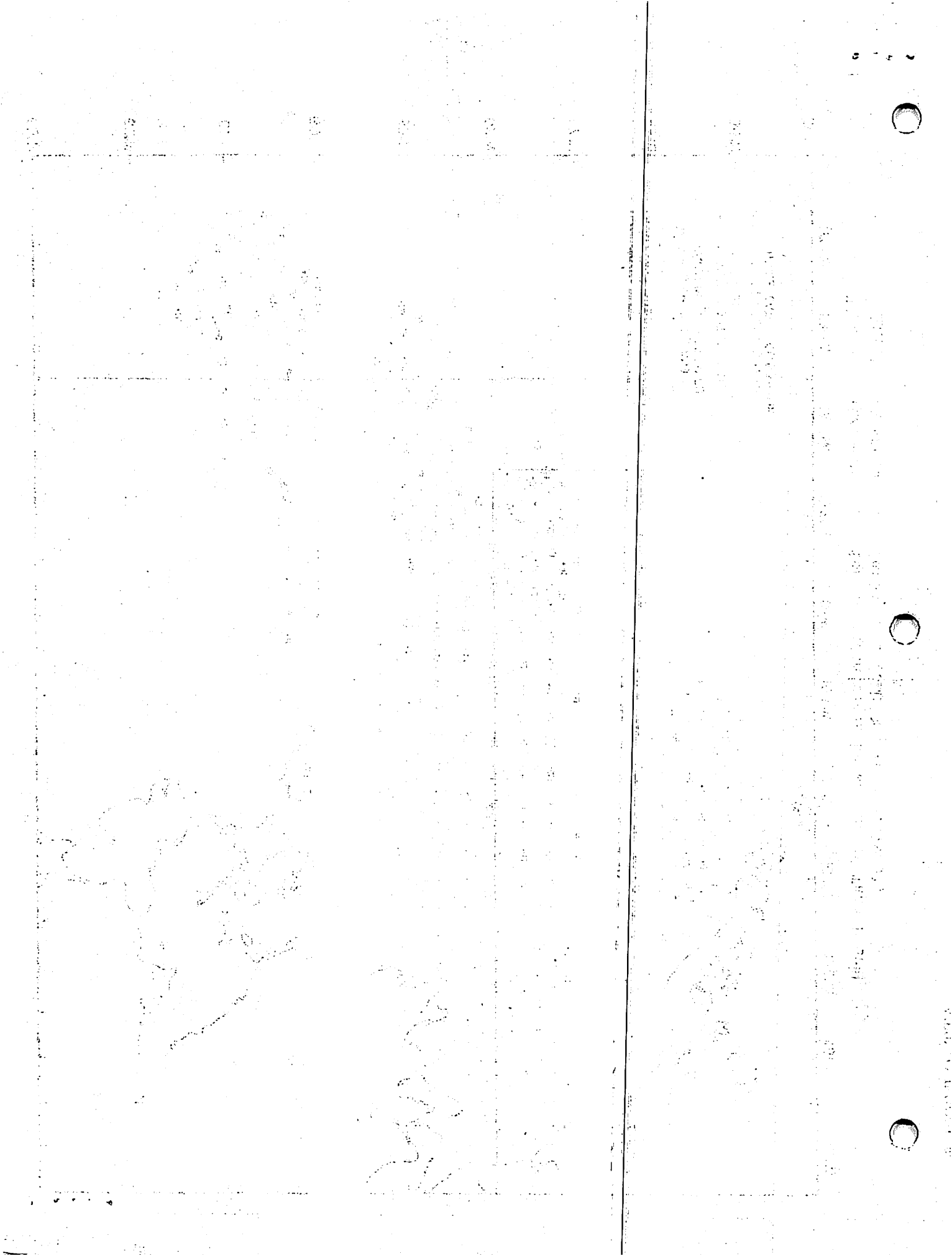


Figure IX-102.--Distribution of catch rates by weight of Tanner crab (*C. opilio*) in the eastern Bering Sea (BLM/OCS survey, 1975).



	Koyo Maru			Bairdi			Opilio			Hybirds			
	¹ Pots	² MT	# Crabs	⁴ MT	⁵ # Crabs	⁶ % (wt)	⁷ MT	⁸ # Crabs	⁹ % (wt)	¹⁰ MT	# Crabs	¹² % (wt)	¹³
5/10-320	¹ 16,120	184,190	178,740	177.257	171,690	96.1	0.875	880	0.5	6.058	6,170	3.4	
	²												
5/21-3/31	³ 28,545	304,365	303,360	297.814	296,880	97.9	0.872	860	0.3	5,697	5,620	1.8	
	⁴												
4/1-4/10	⁵ 26,123	255.330	251,620	248.500	244,810	97.3	1.961	1,980	0.8	4,869	4,830	1.9	A
	⁶												
4/11-4/20	⁷ 24,096	288.365	328,420	227.477	260,650	79.4	37,089	41,380	12.6	23,829	26,390	8.0	B
	⁸												
4/21-4/30	⁹ 31,937	401.405	495,400	205.508	251,780	50.8	65.572	82,080	16.6	130.325	161,540	32.6	
	¹⁰												
5/1-5/10	¹¹ 27,814	329.690	432,610	132.194	178,740	41.3	124.784	160,440	37.1	72.712	93,430	21.6	
	¹²												
5/11-5/20	¹³ 31,364	412.730	515,920	136.375	169,770	32.9	237.718	297,360	57.6	38.637	48,790	9.5	
	¹⁴												
	¹⁵	<u>Keiko Maru</u>											
	¹⁶												
3/21-3/20	¹⁷ 18,532	285.43	285,060		273,486	95.94		3,706	1.30		7,868	2.76	
	¹⁸												
3/21-3/31	¹⁹ 30,930	454.20	436,960		418,438	95.76		5,003	1.15		13,519	3.09	
	²⁰												
4/1-4/10	²¹ 31,339	453.088	437,610		427,676	97.73		2,188	0.52		77,746	1.77	
	²²												
4/11-4/20	²³ 9,215	83.663	84,960		79,690	95.25		134	1.60		2,632	3.15	A
	²⁴												
	²⁵												
	²⁶												
4/21-4/30	²⁷ 24,703	217.370	353,390		119,446	54.95		73,242	33.69		24,682	11.36	B
	²⁸												
	²⁹												
5/1-5/10	²⁹ 22,015	300.814	427,600		224,132	29.0		275,920	65.53		37,538	5.47	
	³⁰												
5/11-5/20	27,135	349.596	488,290		176,419	5.13		284,722	58.31		27,149	5.56	

