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Japanese Research Report for 1995

by

K. Yokawa

**National Research Institute of Far Seas Fisheries
7-1, Orido 5 chome, Shimizu-shi, Shizuoka, 424 Japan**

and

I. Kouya

**Japan Marine Fishery Resource Research Center
3-27 Kioi-cho, Chiyoda-ku, Tokyo, 102 Japan**

The total nominal catch by Japanese trawlers from the NAFO waters increased (28%) from 3,400 tons in 1994 to 4,300 tons in 1995 (table 1). This is mainly due to an increase in Greenland halibut (20%) and in Atlantic redfish (49%). The catch of Greenland halibut was up to 3,100 tons in 1995 from 2,600 tons in 1994. Nearly half (45%) of the catch of Greenland halibut were obtained from joint venture (JV) fishery with Canada (Div. 0B) and Greenland (Div. 1C). The catch of Atlantic redfish was up to 850 tons in 1995 from 570 tons in 1994. Part of them were derived by the JV fishery with Canada in Div. 30. There were no fisheries in Subareas 2 and 4 in 1995. There were no catches of capelin and Illex in 1995.

The number of Japanese trawlers operated in the NAFO waters decreased to three from five in 1994. They were one 3,000, one 400 and one 300 GRT class stern trawlers. Total fishing effort increased (26%) to 6,700 hours fished in 1995 from 5,300 hours in 1994. This was mainly due to a decrease in NAFO regulatory area.

The fishing grounds of Japanese trawlers were located on the continental slopes off Baffin Island (0B), West Greenland (1ABCD), Flemish Pass (3L), Flemish Cap (3M) and Grand banks (30). Japanese trawlers moved among these fishing grounds, as done in the previous years.

I. Subarea 0

A. Status of the Fisheries

The directed fishery for Greenland halibut was conducted at depths around 1000 m in Div. 0B during August to October. The catch of Greenland halibut was 1,030 tons. Mesh sizes of the cod-end used was 130 mm.

II. Subarea 1

A. Status of the Fisheries

The directed fishery for Greenland halibut was conducted at depths between 1,000-1,100 m in Div. 1C in September. The catch of Greenland halibut decreased (52%) to 360 tons in 1994 from 820 tons in 1993. As in previous years, most of the by-catch of the fishery was roundnose grenadier but its ratio was very low (3% of the total). Mesh sizes of the cod-end used was 140 mm.

B. Special Research Studies

A Japan and Greenland Joint Research on Groundfish off Greenland

Under an agreement between the Japan Marine Fishery Resource Research Center (JAMARC) and the Greenland Trawling Company of the Greenland Home Rule (GTC), two types of trawl surveys (scientific survey and exploratory surveys) have been conducted in off Greenland since 1987 by using R/V Shinkai Maru.

In 1995, one stratified random bottom trawl survey was conducted in Divs. 1ABCD during 12-31 in August. The catch of Greenland halibut in this survey was 8.7 tons. The results are reported in a research document in this meeting.

IV. Subarea 3

A. Status of the Fisheries

The directed fishery for Greenland halibut was conducted mainly in Divs. 3LM at depths of 800-1200m all year around. The Greenland halibut catch increased (45%) to 1,700 tons in 1995.

The length composition of Greenland halibut during the operation in November and December showed in Figs. 1 and 2. All the catch was obtained at Flemish pass area. The mesh size used in cod end was 130 mm. Almost of all the fishes caught were immature. The length composition of Greenland halibut changed remarkably between November and December. Length composition in November was mono-modal with its peak around 47-49 cm in male and 43-47 cm in female and many large sized fishes (50 cm <) were observed in both sex. Length composition in December was mono-modal with its peak around 40 cm in each sex, and very few fishes larger than 50 cm were observed. Although the catches consisted by smaller sized fishes in December, CPUE (number/hour) was much higher in December than in November.

The redfish directed fishery was conducted in Divs. 3MO during February-April and October-November. Of the total 850 tons of the redfish catch, about 70% was obtained in Div. 3M. Mesh sizes of the cod-end used were 130-142 mm.

One trial fisheries on redfish in Div. 3O was conducted in between 16-24 in October. The mesh size of cod end used was 130 mm. Total of 260 tons of redfish were caught at the depth range between 160-380 m. Length distribution of redfish (species mixed) by sex and female length distribution by maturity stage were showed in Figs. 3 and 4. As in Fig. 3, most of the catches were consisted by fishes smaller than 25 cm and there were few males larger than 25 cm. As in Fig. 4, large part of females smaller than 24 cm were immature and most of females larger than 28 cm were matured.

Table 1. Fishing efforts and catches (tons) by species of Japanese trawl fishery in each NAFO Division in 1995.

Dibision	OB	1A	1B	1C	1D	2G	2H	3K	3L	3M	3N	3O	Total
Hours Fished	1907	78	5	348	14	-	-	-	1576	2765	-	49	6742
Total catch	1092	15	1	390	5	-	-	-	780	1769	-	266	4318
Cod	-	-	-	-	-	-	-	-	0	2	-	-	2
Redfish	0	-	0	0	0	-	-	-	48	538	-	264	851
Greenland halibut	1031	13	1	354	3	-	-	-	614	1099	-	-	3114
Roundnose grenadier	38	-	-	11	0	-	-	-	32	27	-	-	109
Sharks & Rays	11	2	-	9	-	-	-	-	27	21	-	-	71
Others	11	0	0	16	1	-	-	-	59	84	-	2	173

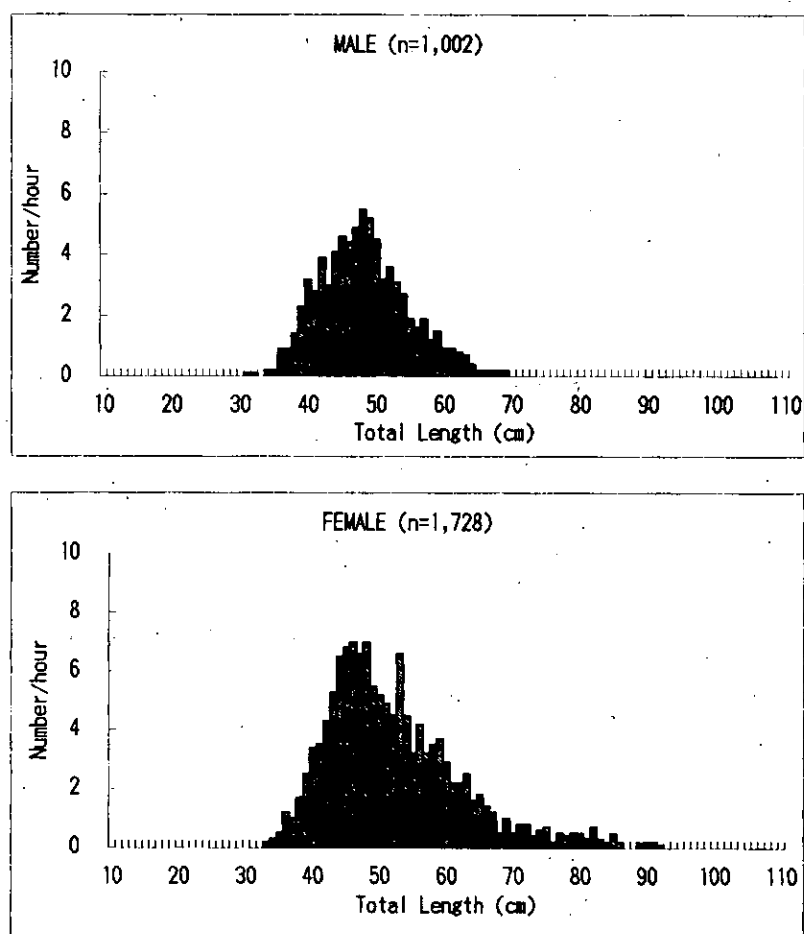


Fig. 1. Length composition of *G. halibut* by sex in November at the depths between 800-1,500 m in NAFO regulatory area (3ML). The mesh size used in cod end was 130 mm.

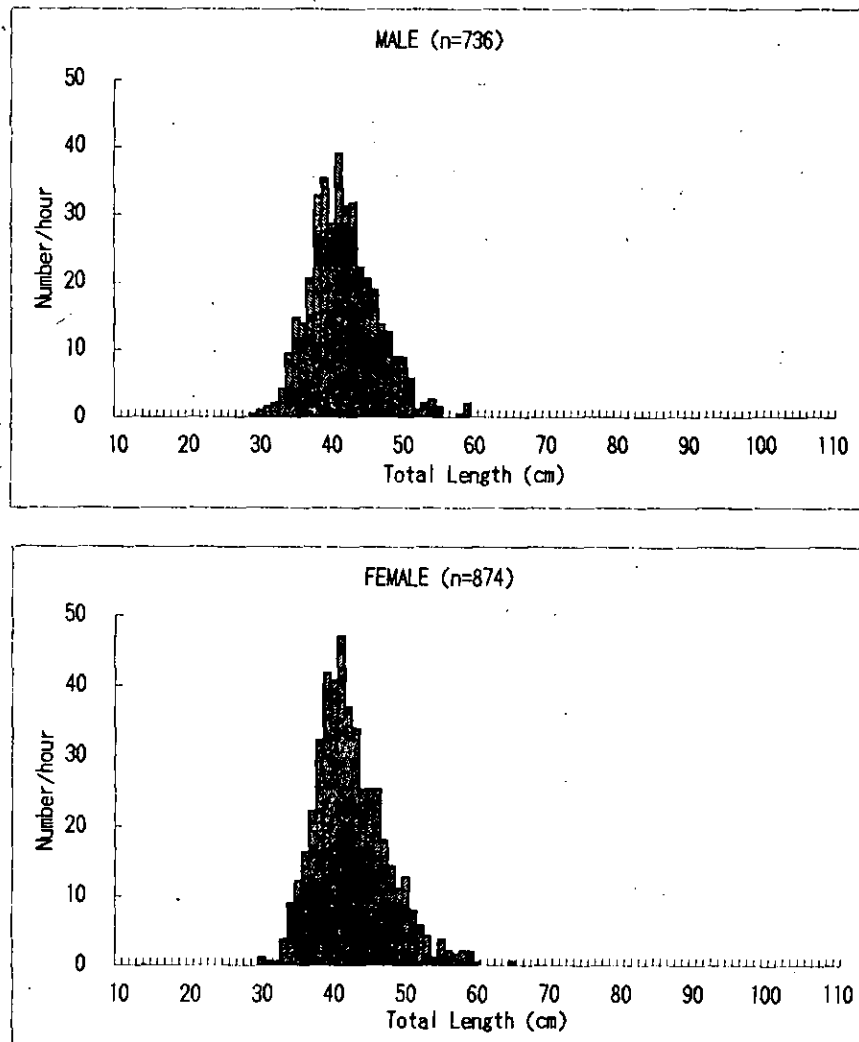


Fig. 2. Length composition of *G. halibut* by sex in December at the depths between 800-1,100 m in NAFO regulatory area (3LM). The mesh size used in cod end was 130 mm.

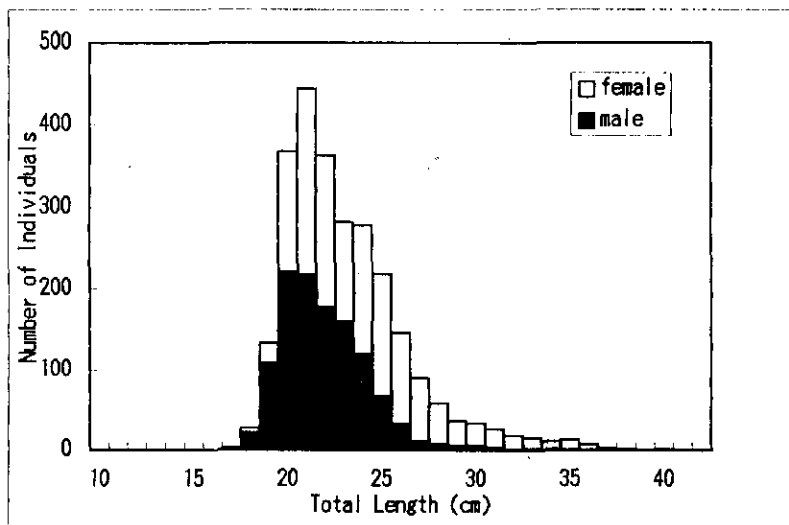


Fig. 3. Length composition of redfish by sex during trial fishery in Div. 30 in October (n=2,573).

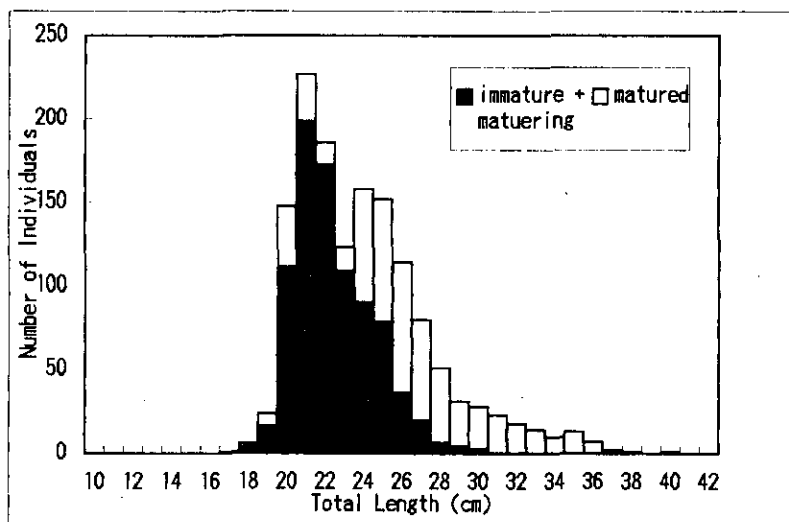


Fig. 4. Length composition of female redfish by maturity stages during trial fishery in Div. 30 in October (n=1,418).