

Northwest Atlantic  Fisheries Organization

Serial No. N1148

NAFO SCS Doc. 86/14

SCIENTIFIC COUNCIL MEETING - JUNE 1986

Japanese Research Report for 1985

by

S. Kawahara

Far Seas Fisheries Research Laboratory, Orido, Shimizu 424, Japan

The total nominal catch by Japanese trawlers from the NAFO waters in 1985 was 8,500 tonnes, a decrease (15 %) from 10,000 tonnes in 1984 (Table 1). Significant decrease occurred in the catches of squid-Loligo in Subareas 5 and 6. This is mainly due to the decrease of national quota in the U. S. waters. The catches of Illex in Subareas 3-6 still remained at the lowest level.

The number of Japanese trawlers operated in the NAFO waters increased from ten in 1984 to twelve in 1985. They were one 4,000, one 3,000, four 2,000, two 1,000, one 500 and three 300-350 GRT class stern trawlers. Contrariwise, the total fishing effort decreased remarkably from 11,400 hours in 1984 to 6,000 hours fished in 1985. The inconsistency stems from the fact that many vessels operated mainly off East Greenland.

The fishing grounds of Japanese trawlers were located on the outer edge of the continental shelf and the continental slope off the west coast of Greenland (Divisions 1B-1F), southern Labrador (2J), Newfoundland (3KLMO), Nova Scotia (4Vn-4X), and the U.S. (5Ze-6B). Japanese trawlers moved seasonally among these fishing grounds, as done in the previous years.

I. Subarea 1

A. Status of the Fisheries

Ten trawlers operated in Divisions 1B-1F during September-November and caught about 1,700 tonnes of fish, mostly composed of redfish. Redfish was taken at depths between 140-500 m. Some vessels fished for Greenland halibut at depths around 600 m in Division 1B, but the fishings were unsuccessful. The mesh sizes of the cod-ends used were 140-160 mm.

B. Special Research Studies

1. Biological Studies on Redfish and Greenland halibut

With the recent expansion of Japanese trawl fishery off the west and east coasts of Greenland, biological studies on the target species have started in 1985, and frozen samples of redfish and Greenland halibut were collected on board the commercial vessels. Biological measurements of these samples are being conducted at our laboratory now. Electrophoretic analysis of enzymes will be made for these redfish samples from the both coasts of Greenland.

II. Subarea 2

A. Status of the Fisheries

The fishery directed to Greenland halibut was carried out between 400-580 m in Division 2J in December. At the shallower depths, redfish was targeted too. The Greenland halibut catch sharply decreased from 900 tonnes in 1984 to about 60 tonnes in 1985, mainly due to the decreased fishing efforts. The mesh sizes of the cod-ends used were 130-140 mm.

III. Subarea 3

A. Status of the Fisheries

The redfish-directed fishery was carried out between 240-640 m in Divisions 3K, 3L, 3M and 3O during August-December. The total redfish catch increased from 3,000 tonnes in 1984 to 4,700 tonnes in 1985, which were taken mainly in Division 3K. The mesh sizes of the cod-ends used were 75 mm in Division 3O, and 135 mm in other divisions.

IV. Subarea 4

A. Status of the Fisheries

The redfish directed fishery was carried out in Division 4V in April and in November-December. About 900 tonnes of redfish were caught between 250-500 m. During August-September, fishing operations aiming at squid-Illex were conducted at depths around 200 m in Subarea 4. However, few aggregations of squid were found and the catches were mainly composed of silver hake. The mesh sizes of the cod-ends used were 60-75 mm.

V. Subareas 5 and 6

A. Status of the Fisheries

The squid-Loligo fishery was carried out along the edge of the continental shelf (70-220 m) during January-February. The Loligo catch was about 160 tonnes, a large decline from 1,800 tonnes in 1984. The Illex-directed fishery, which have been the main fishery for Japanese trawlers during summer-autumn, was not conducted in 1985. Depressed fisheries for both squids were due to the decreased national quotas in the U.S. waters. The mesh sizes of the cod-ends used were 45 mm and 60 mm in the off-bottom and bottom trawls, respectively.

Table 1. Fishing efforts and catches by species of Japanese trawl fishery in each NAFO division in 1984 and 1985.

Year	1984																Total			
	1B	1C	1D	1E	1F	2J	3K	3L	3M	3N	3O	4Vn	4Vs	4W	4X	5Za		5Ze	6A	6B
Hours fished	88	22	198	278	165	1,224	762	296	726	53	964	1,089	574	644	3	38	1,509	2,008	759	11,399
Days fished	8	4	24	42	25	94	78	26	77	3	77	70	48	47	1	6	91	137	64	922
Total catch	24	2	245	339	191	1,221	1,259	460	416	85	1,446	948	508	637	0	40	680	1,217	332	10,048
Cod	-	-	2	4	7	113	40	317	9	-	1	1	4	1	-	-	-	-	-	500
Redfish	0	0	239	332	182	86	1,132	105	389	81	1,258	843	484	3	-	-	-	-	-	5,133
Silver hake	-	-	-	-	-	-	-	-	-	-	16	0	4	526	0	7	6	26	8	593
Greenland halibut	24	2	-	-	-	934	67	2	10	-	-	3	0	-	-	-	-	-	-	1,043
Argentine	-	-	-	-	-	-	-	-	-	-	12	0	3	5	-	-	-	-	-	19
Squid-Loligo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	588	997	212	1,808
Squid-Illlex	-	-	-	-	-	-	-	-	-	-	1	-	0	74	-	2	17	72	165	165
Others	0	-	4	3	2	88	20	36	8	4	158	101	13	28	0	22	84	177	40	787

Year	1985																Total			
	1B	1C	1D	1E	1F	2J	3K	3L	3M	3N	3O	4Vn	4Vs	4W	4X	5Za		5Ze	6A	6B
Hours fished	38	58	337	351	409	226	1,132	199	685	-	459	138	938	95	30	36	103	296	454	5,983
Days fished	5	7	39	47	55	19	149	14	59	-	44	14	78	11	3	4	10	30	45	633
Total catch	30	23	313	607	707	111	3,927	132	338	-	720	72	985	88	12	52	53	134	241	8,544
Cod	-	-	6	42	6	5	59	1	4	-	0	5	10	-	-	-	-	-	-	137
Redfish	26	18	294	556	698	25	3,578	129	313	-	660	61	853	9	-	-	-	0	0	7,220
Silver hake	-	-	-	-	-	-	-	-	-	-	2	-	45	68	8	3	7	8	24	164
Greenland halibut	3	1	1	-	-	64	196	-	13	-	0	1	0	-	-	-	-	-	-	277
Argentine	-	-	-	-	-	-	-	-	-	-	2	-	20	0	2	-	-	-	-	25
Squid-Loligo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	17	62	83	163
Squid-Illlex	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0	1	0	2	2	8
Others	1	4	12	9	3	17	94	2	8	-	56	5	57	8	2	47	29	62	132	550