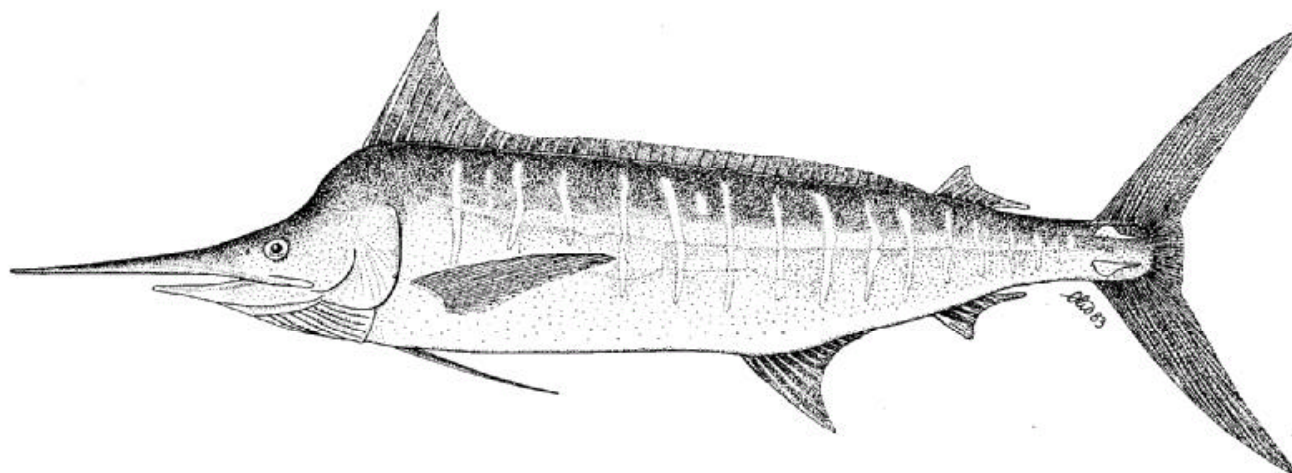




SCTB13 Working Paper

BBRG- 5

Brief Review of the Japanese Swordfish Catch in the Pacific Ocean from 1971 to 1998



Hirokazu Saito and Kotaro Yokawa

National Research Institute of Far Seas Fisheries
5-7-1, Orido, Shimizu, 424-8633, Japan

1. Introduction

In this report, Japanese swordfish catch in the Pacific Ocean for the period between 1971 and 1998 were briefly reviewed, and the latest statistics of Japanese offshore and distant water longline fisheries in the North and South Pacific Ocean are provided. The catch statistics in this report includes all catch in the Pacific Ocean (NOT new SCTB Area).

This paper also provides the swordfish catch of the Japanese coastal fisheries (coastal longline, driftnet, harpoon and others).

The data used in this study for the offshore and distant water longliners were the logbook data collected and aggregated by the National Research Institute of Far Seas Fisheries, and the data for the other fisheries were from the annual statistics of landing published by the Statistics and Information Department of the Japanese Ministry of Agriculture, Forestry, and Fisheries.

2. Trends in catch

Figure 1 and Table 1 show the Japanese swordfish catch by the fishing categories. The offshore and distant water longline fishery operated in both north and south Pacific Ocean, but the others were operated only in the north Pacific except for the driftnet fishery from 1983 to 1990 when this fishery was expanded into the south Pacific. The amount of the coastal longline catch showed a gradual increasing trend and has been over 1,000 tons since 1992. The driftnet catch decreased suddenly in 1992 due to the ban of the large-scale drift net in the high sea area. The category of "Others" is mainly composed of harpoon, pole-and-line, set-net and purse seine. In this category, the main catch was obtained by the harpoon in early 1970's and fluctuated between 200 and 500 t. But the catch decreased gradually and only attained to about 150 t in 1990. In the 1990's, the catch increased to around 500t. It is not known certainly that which fisheries in this category mainly contributed to this recent increase at present.

Figure 2 shows the swordfish catch by the Japanese offshore and distant water longliners by north and south Pacific. In the north Pacific, offshore and distant water longline caught about 5,000 to 8,000 tons of swordfish for the period between 1971 and 1998. In the south Pacific, catches in 1970's were about 2,300 tons and increased gradually to about 3,000 tons in 1990's with some fluctuations. The increase of swordfish catch in the southeast Pacific mainly contributed to this increase.

3. Geographical distribution of swordfish catch and CPUE of Japanese tuna longline fishery in the Pacific Ocean

The geographical distributions of swordfish catch and CPUE in 1998 are shown in Figures 3 and 4. The high catches as well as the high CPUEs were observed between 25° to 40° N and 140° E to 180° in the northwest Pacific, 5° N to 15° S and 95° to 135° W in the east Pacific, and in the Tasman Sea. In the northwest Pacific, there are the offshore longliners conducting the swordfish targeting operations with surface and night setting.

Table 1. Japanese swordfish catch (metric tons) in the Pacific Ocean.

Year	Fisheries					Total
	Longline			Driftnet	Others	
	Offshore and distant water		Coastal			
	North	South				
71	6245	2336	332	1	576	9490
72	6324	2513	520	55	316	9728
73	6726	2601	404	720	183	10634
74	5331	2366	508	1304	381	9890
75	6657	1675	602	2672	301	11907
76	7461	2888	691	3488	568	15096
77	7432	2059	834	2344	327	12996
78	7278	2351	984	2475	310	13398
79	7397	2169	973	983	290	11812
80	5685	2850	824	1746	468	11573
81	6911	3143	675	1848	251	12828
82	5605	2819	839	1257	296	10816
83	7209	2568	955	1033	251	12016
84	6570	2311	1141	1053	264	11339
85	8871	2242	980	1133	289	13514
86	8082	2971	960	1264	256	13532
87	8635	3287	819	1051	184	13976
88	7604	4785	665	2830	213	16097
89	6065	2931	742	1596	403	11737
90	5346	3493	687	1074	148	10748
91	4130	3559	799	498	186	9172
92	6600	5862	1173	887	411	14934
93	7170	3827	1394	292	358	13041
94	6082	3908	1357	421	349	12117
95	5375	3065	1386	561	465	10853
96	6000	3054	1063	428	650	11195
97	5655	3652	1213	365	414	11298
98	5866	3512	1186	470	551	11585

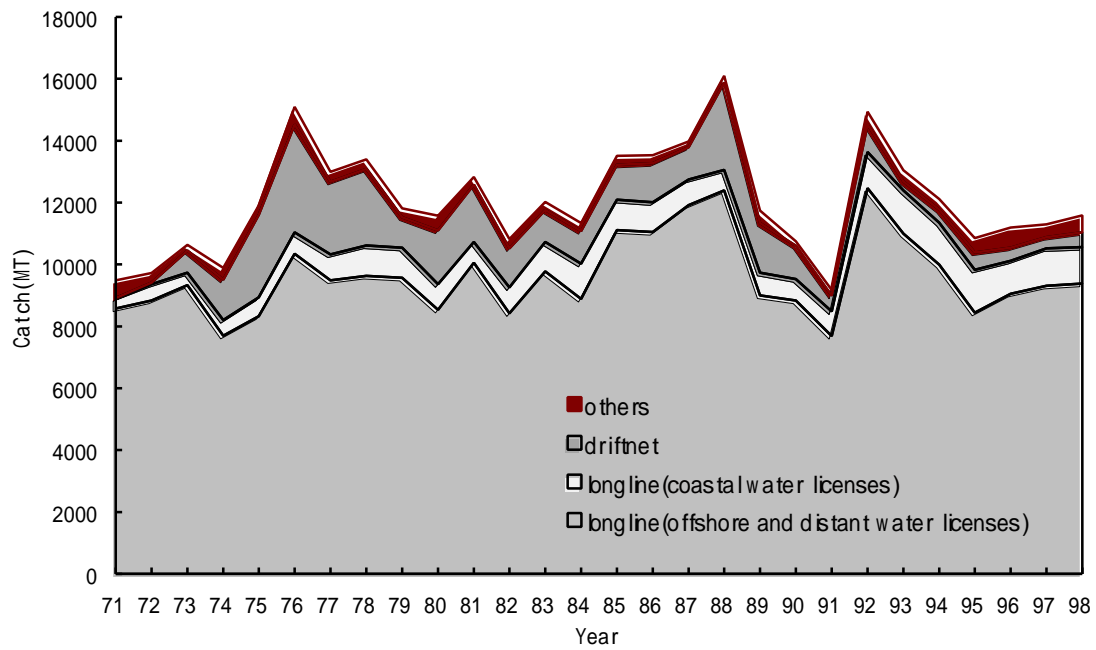


Figure 1. Japanese swordfish catch by fishing in the Pacific Ocean.

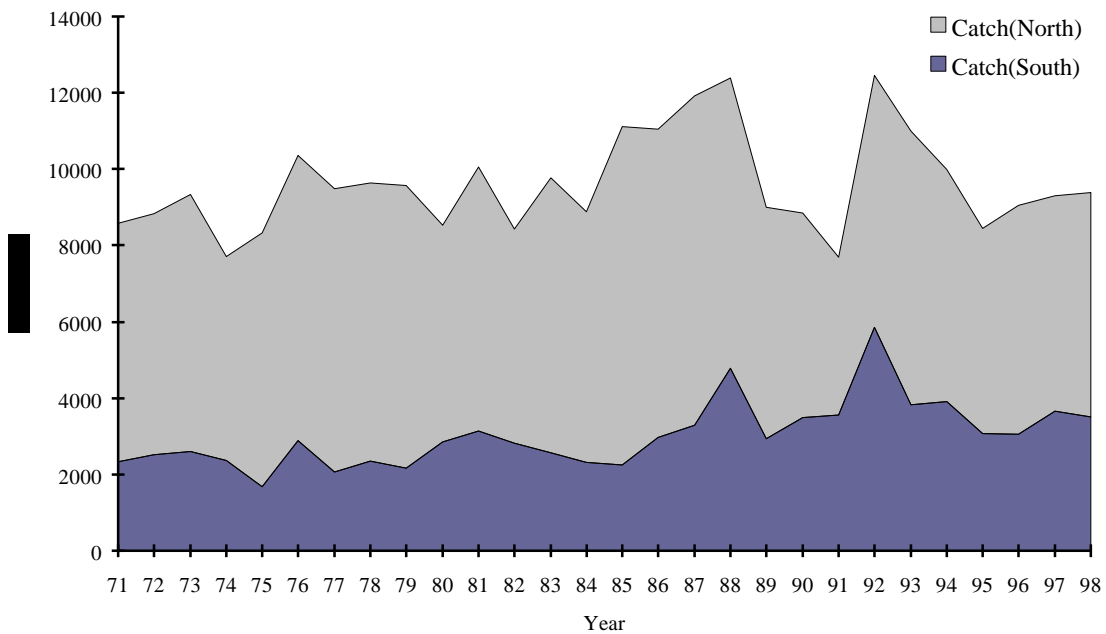


Figure 2. Swordfish catch in the North and South Pacific Ocean for the Japanese offshore and distant water longline fishery.

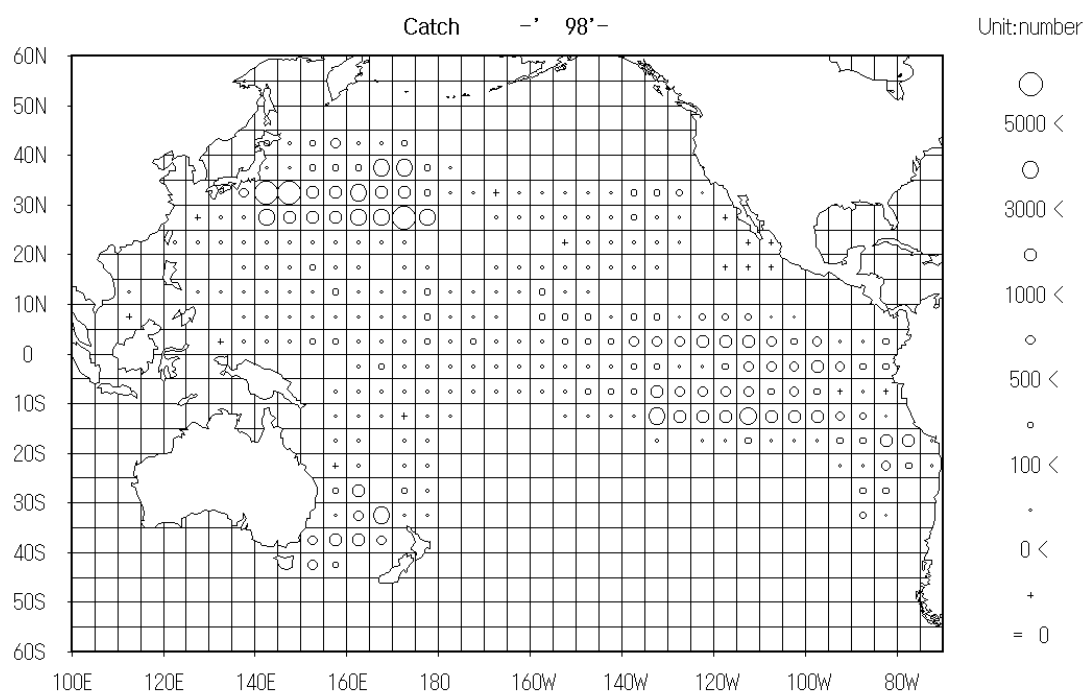


Figure 3. Distribution of the Japanese offshore and distant water longline catches (number) of swordfish in Pacific Ocean in 1998.

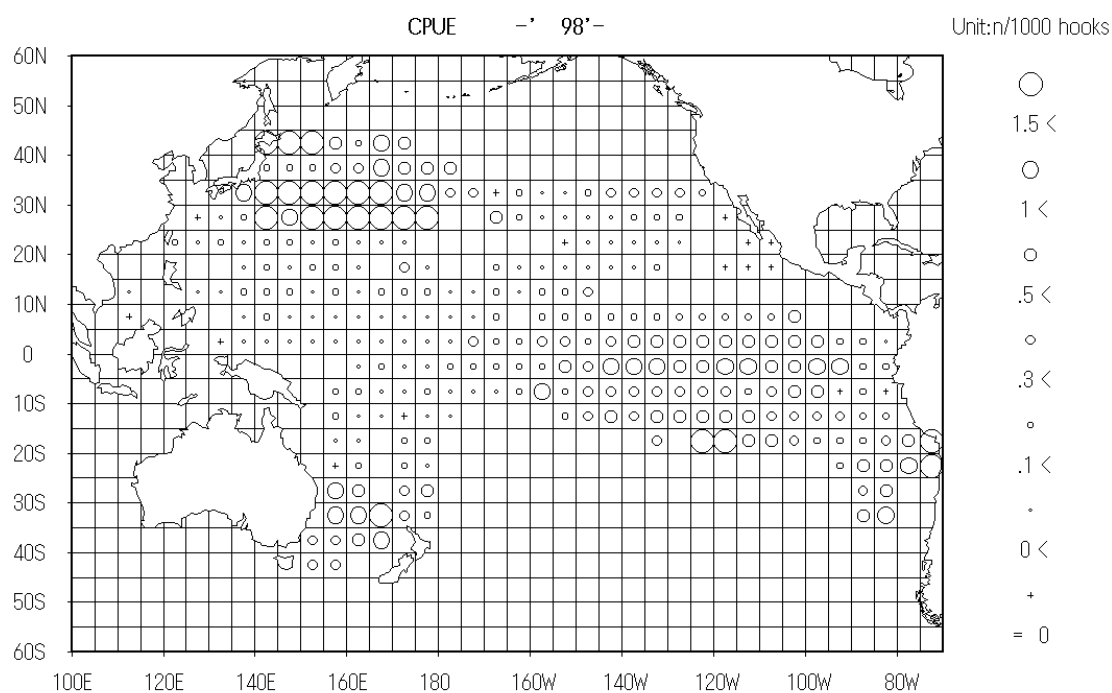


Figure 4. Distribution of the Japanese offshore and distant water longline CPUEs (No./1000 hooks) for swordfish in Pacific Ocean in 1998.