

INPFC FILE COPY

— ANCHORAGE —

INPFC  
DOCUMENT

Ser. No. 2783

Rev. No. ....

Not to be cited by  
INPFC Document number

## 北東太平洋の日本底魚漁業の概況

### Outline of the Japanese groundfish fishery in the northeast Pacific in 1983 January-December and 1984 January-July

手 島 和 之

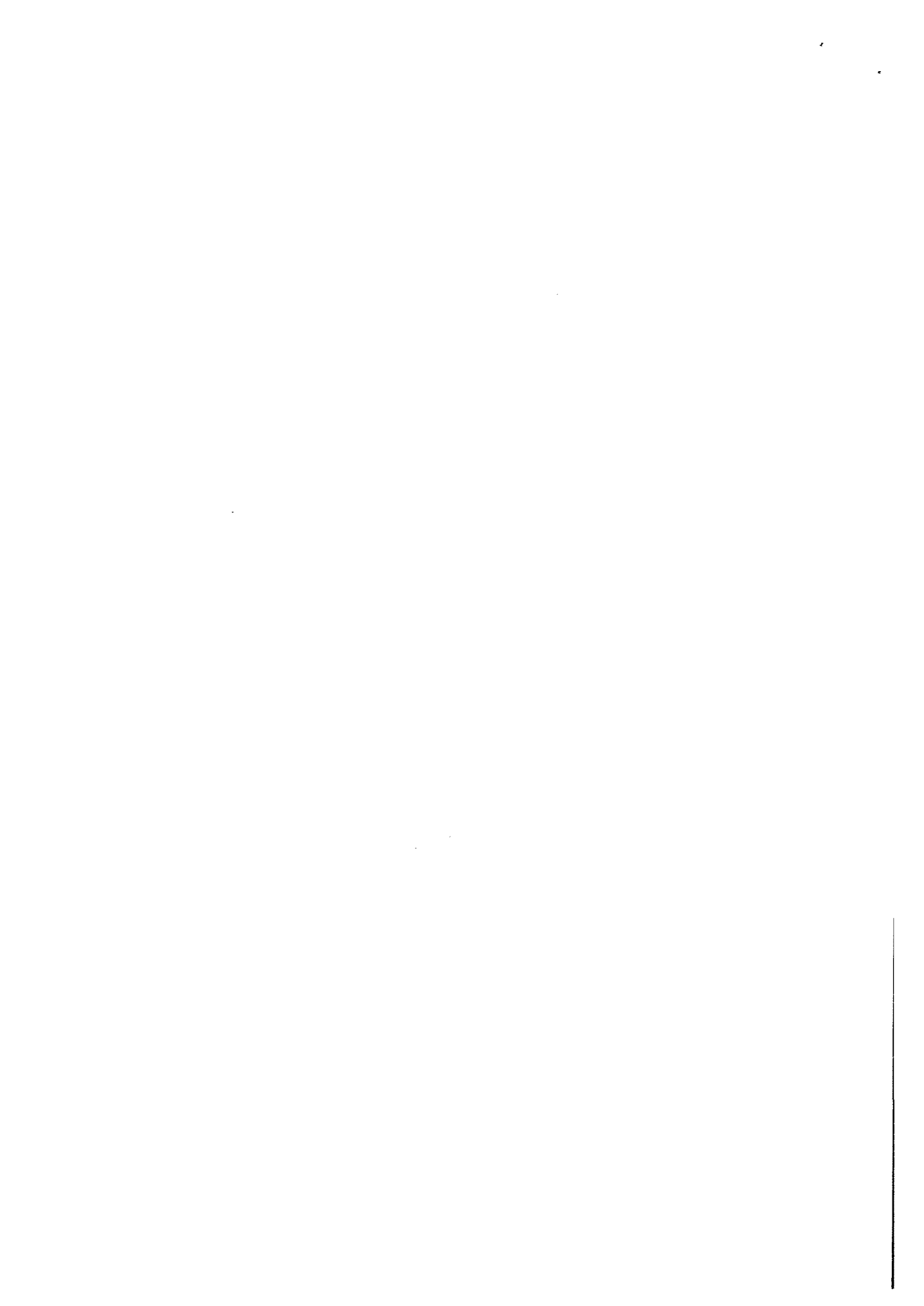
Kazuyuki Teshima

1984年 8月

August 1984

水 産 庁

Fisheries Agency of Japan



# 北東太平洋の日本底魚漁業の概況

手 島 和 之

(遠洋水産研究所)

## 1. 1983年の日本底魚漁業(1983年1月～12月)

1983年の北東太平洋水域における日本の底びき網漁業は、カナダによる〈領海及び漁業水域法〉に基づく200海里漁業水域の設定及びアメリカ合衆国の〈マグナソン漁業保存管理法〉などによる漁獲割当て及び禁漁区一禁漁期の規制を受けて推移した。

北東太平洋水域(図1)における1983年の我が国の底魚漁業における許可隻数は、北方トロール漁業(スターン・トロール漁法)及び北洋はえなわ・さし網漁業で、それぞれ40隻と22隻であったが、実際の稼働は、北方トロール漁船21隻とはえなわ漁船22隻であった(表1)。

1983年の北方トロール漁業の漁獲努力量は、1982年より1,008時間(3.4%)減少して28,536時間であった(表2)。1983年では、これらの努力量のすべてが米国水域内に投入されており、カナダ水域内の操業は行われなかった。なお、北方トロール漁業にはすり身工船と冷凍工船があるが、努力

---

本報告の引用は下記に従うこと：

手島和之 1984. 北東太平洋の日本底魚漁業の概況(北太平洋漁業国際委員会提出文書).  
12頁. 水産庁、東京。

This paper may be cited in the following manner:

Kazuyuki Teshima. 1984. Outline of the Japanese groundfish fishery in the northeast Pacific in 1983 January-December and 1984 January-July. (Document submitted to the International North Pacific Fisheries Commission.), 16pp. Fisheries Agency of Japan, Tokyo 100, Japan.

量は冷凍工船が85.9%を占め圧倒的に多いが、漁獲量では50.2%ではほぼ半分である。

はえなわ漁法による1983年の漁獲努力量は1,018,100鉢で、1982年より35,500鉢(3.6%)増加した。1982年と同様に、これらの努力量はすべて米国水域内に投入されており、カナダ水域では、操業は行われなかった(表2)。

1983年の漁法別年間漁獲努力量(スターン・トロール漁法とはえなわ漁法)の地理的分布は図2と図3に示されている。北方トロール漁業の中心漁場はKodiak海区で、全体の43.2%に相当する12,339時間が投入された。残りの大半はChirikof, Shumaginで占められており、このような傾向は1982年とほぼ同様であった。

はえなわ漁業の1983年の努力は、1982年と同様にShumagin海区からYakutat海区にいたる海域に集中した。1982年と比較して、Kodiak海区及びYakutat海区で、それぞれ、29.4%(43,390鉢)、26.2%(33,460鉢)増加した。

さらに、北太平洋におけるオヒョウの漁獲は、米国の外国漁業規則に基づいて、すべての日本漁船に対して1982年と同様に禁止された。

1983年の総漁獲量は96,507トンで1982年の101,560トンより5,053トン(5.0%)減少した(表3)。1983年と比較すると、1983年に漁獲量の増加した魚種はマダラ(3,270トン、13.7%増)及びアラスカアブラガレイ(2,341トン、76.5%増)であった。一方、漁獲量の減少した魚種はアラスカメヌケ(1,748トン、37.8%減)、ギンダラ(708トン、14.8%減)、スケトウダラ(5,623トン、10.9%減)、カラスガレイ(98トン、81.7%減)及びその他のカレイ類(1,239トン、41.9%減)であった。その結果、魚種別漁獲量は、スケトウダラ45,752トン(47.4%)、マダラ27,120トン(28.1%)、アラスカアブラガレイ5,403トン(5.6%)及びギンダラ4,087トン(4.2%)であった。

北方トロール漁業による1983年の漁獲量は1982年より7,741トン(10.5%)減少して66,090トンであった。増加したのは上記総漁獲量と同じくマダラとアラスカアブラガレイのみであった。

1983年の北洋はえなわ・さし網漁業(はえなわ漁法)の漁獲量は、1982年より2,688トン(9.7%)増加して30,417トンで、これは1982年と同様に、すべて米国水域内で漁獲された。主要な漁獲物はマダラ25,317トン(83.2%)及びギンダラ3,797トン(12.5%)であった(表3)。

1983年のスケトウダラの総漁獲量45,752トンの86.6%(39,633トン)Shumagin海区及びChirikof海区の水域で漁獲された。1982年と比較すると、Shumagin海区、Chirikof海区及びKodiak海区の漁獲量が、それぞれ2,289トン(12.3%)、2,193トン(8.6%)、1,120トン(15.6%)減少した(図4)。なお、1983年のスケトウダラの総漁獲量(45,752トン)の99.5%(45,501トン)はスターン・トロール漁法によるものであった(表3)。

また、1983年のマダラの総漁獲量27,120トンの内、その78.0%(21,160トン)がShumagin海区及びChirikof海区において漁獲された。1982年と比較すると、Shumagin海区、Chiri-

kof 海区、Kodiak 海区で増加したが、Yakutat 海区の漁獲量は減少した(図5)。また、マダラの総漁獲量(27,120トン)の内、93.4%(25,317トン)は、はえなわ漁法によって漁獲されており、残りの6.6%(1,803トン)はスターン・トロール漁法によって漁獲された(表3)。

## 2. 1984年の日本の底魚漁業(1984年1月～7月)

1984年には40隻のトロール船と22隻のはえなわ・さし網漁船が1983年と同様に、北方トロール漁業及び北洋はえなわ・さし網漁業として操業を許可された。

1984年の予備的な資料によれば、トロール漁船とはえなわ漁船による北東太平洋水域における総漁獲量は26,249トンで1983年同期の漁獲量より10,067トン(28%)減少した(表4)。1984年の魚種別漁獲量は、1983年と比較してすべての魚種で減少した。総漁獲量のうち、マダラ(12,147トン)及びスケトウダラ(9,790トン)が全体の84%を占めた。

漁獲量のINPFC海區別内訳は、Chirikof海区が全体の45%、Shumagin海区が41%及びKodiak海区が14%を占めた。1984年にはYakutat海区以東では操業が行われなかった。

Table 1. The number of Japanese fishing vessels, (licensed) and operated, by gear in in 1982 and 1983.

	Stern trawler	Longliner
1983	22(40)	22(22)
1982	21(40)	22(22)

Table 2. Fishing effort and catch (t) by type of gear during 1982 and 1983 calendar years in northeast Pacific. Efforts are shown by hours for North Pacific trawl fishery and by hachi for North Pacific longline-gillnet fishery.

Fishery	Gear	Area	1983		1982	
			Effort	Catch	Effort	Catch
North Pacific trawl	Stern trawl (Surimi factory T.)	U.S. waters	4,029	32,908	4,550	33,369
		Canadian waters	-	-	-	-
		Sub-total	4,029	32,908	4,550	33,369
	Stern trawl (Frozen-fish factory T.)	U.S. waters	24,557	33,182	24,463	38,041
		Canadian waters	-	-	581	2,421
		Sub-total	24,557	33,182	25,044	40,462
Total		28,586	66,090	29,594	73,831	
North Pacific LL-GN	Longline	U.S. waters	1,018,100	30,417	982,600	27,729
		Canadian W.	-	-	-	-
		Total	1,018,100	30,417	982,600	27,729

LL-GN: longline-gillnet

Table 3. Catch (t) and effort by Japanese fisheries in the northeast Pacific during 1982 and 1983 calendar years.

	1983			1982		
	Total	Stern T.	Longline	Total	Stern T.	Longline
Efforts (hours)	28,586	28,586	-	29,594	29,594	-
Efforts (hachi)	1,018,100	-	1,018,100	982,600	-	982,600
<u>Total catch (t)</u>	<u>96,507</u>	<u>66,090</u>	<u>30,417</u>	<u>101,560</u>	<u>73,831</u>	<u>27,729</u>
POP	2,876	2,823	53	4,624	4,567	57
Sablefish	4,087	290	3,797	4,795	381	4,414
Pollock	45,752	45,501	252	51,375	51,128	247
Pacific cod	27,120	1,803	25,317	23,850	1,781	22,069
Arrowtooth fl.	5,403	5,225	177	3,062	2,981	81
Greenland turbot	22	14	8	120	-	120
Other flounders	1,721	1,519	204	2,960	2,799	161
Others	9,526	8,915	609	10,774	10,194	580



Table 4. Preliminary catch (t) by Japanese fishing vessels operating in the northeast Pacific during January through July in 1984. Catch for the same period in 1983 is shown in parentheses.

Species	SHUMAGIN	CHIRIKOF	KODIAK	YAKUTAT	TOTAL
Total	<u>10,678.3</u> (13,946.3)	<u>11,932.0</u> (14,489.4)	<u>3,639.1</u> (7,276.1)	- (604.4)	<u>26,249.4</u> (36,316.3)
Flatfish	99.1 (477.0)	408.5 (1,425.0)	612.7 (987.4)	- (11.3)	1,120.3 (2,900.7)
P. cod	9,564.7 (4,580.2)	2,526.1 (9,527.5)	56.2 (1,541.5)	- (371.6)	12,147.0 (16,020.8)
Pollock	323.0 (6,500.7)	7,948.3 (369.2)	1,519.4 (3,052.4)	- (18.8)	9,790.7 (9,941.1)
Sablefish	224.3 (477.2)	28.4 (491.4)	12.5 (267.7)	- (159.4)	265.2 (1,395.7)
POP	69.0 (455.2)	797.9 (1,016.5)	1,163.1 (742.6)	- (1.9)	2,030.0 (2,216.2)
Other rockfish	33.0 (143.1)	126.0 (229.0)	240.5 (172.2)	- (7.4)	399.5 (551.7)
Atka mackerel	229.7 (964.9)	32.1 (1,067.6)	0.5 (147.9)	- (-)	262.3 (2,180.4)
Others	134.5 (330.3)	61.8 (327.0)	29.9 (307.0)	- (32.9)	226.2 (997.2)
Squid	1.0 (17.8)	2.9 (36.2)	4.3 (57.4)	- (1.1)	8.2 (112.5)

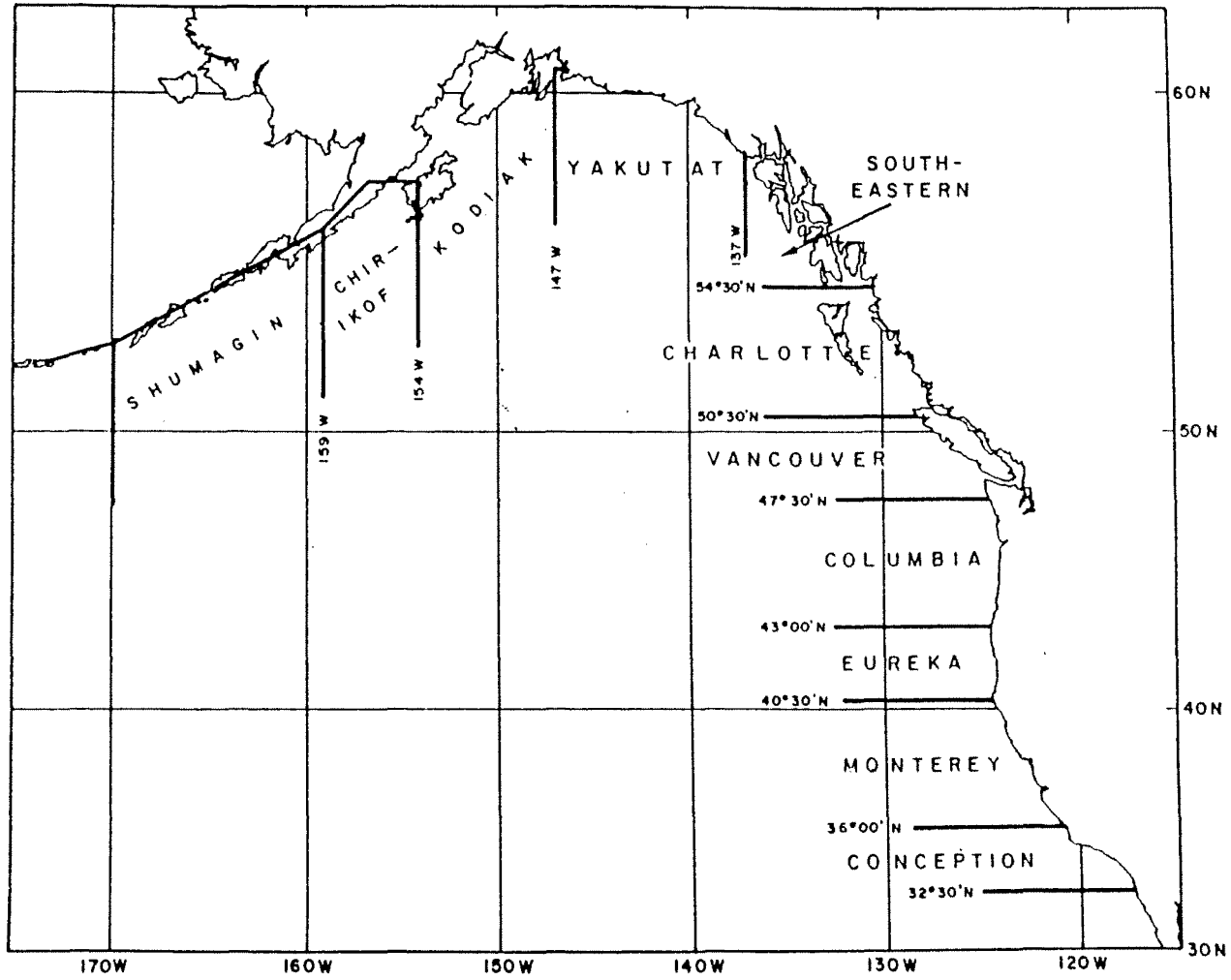


Fig. 1. Area divisions of the northeast Pacific region

Fig. 2. Geographical distribution of annual effort of stern trawl (in hours) in 1983 calendar year.

Distribution by area		
Year	1983	1982
Total	28,586 ( % )	29,594 ( % )
Shumagin	7,655 (26.8)	8,943 (30.2)
Chirikof	8,562 (29.9)	7,881 (26.6)
Kodiak	12,339 (43.2)	12,157 (41.1)
Yakutat	30 (0.1)	33 (0.1)
Vancouver	- ( - )	581 (2.0)

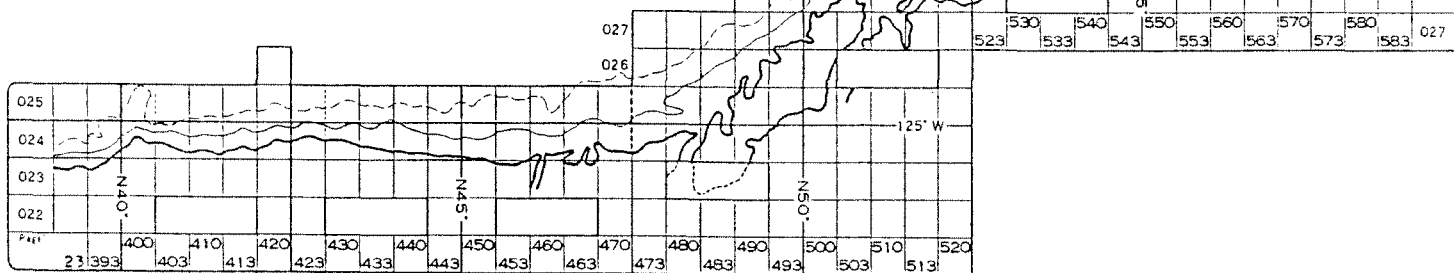
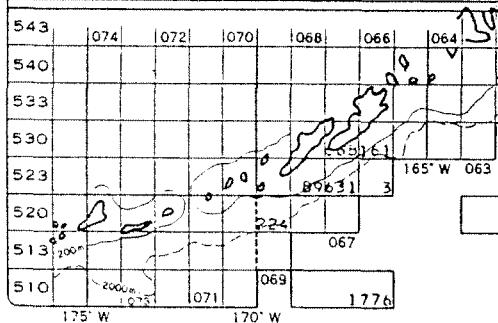


Fig. 3. Geographical distribution of annual effort of longline (in hechi) in 1983 calendar year.

Distribution by area		
Year	1983	1982
Total	1,018,100 ( % )	982,600 ( % )
Shumagin	232,400 (22.8)	258,330 (26.3)
Chirikof	433,900 (42.6)	449,210 (45.7)
Kodiak	190,800 (18.7)	147,410 (15.0)
Yakutat	161,100 (15.8)	127,640 (13.0)

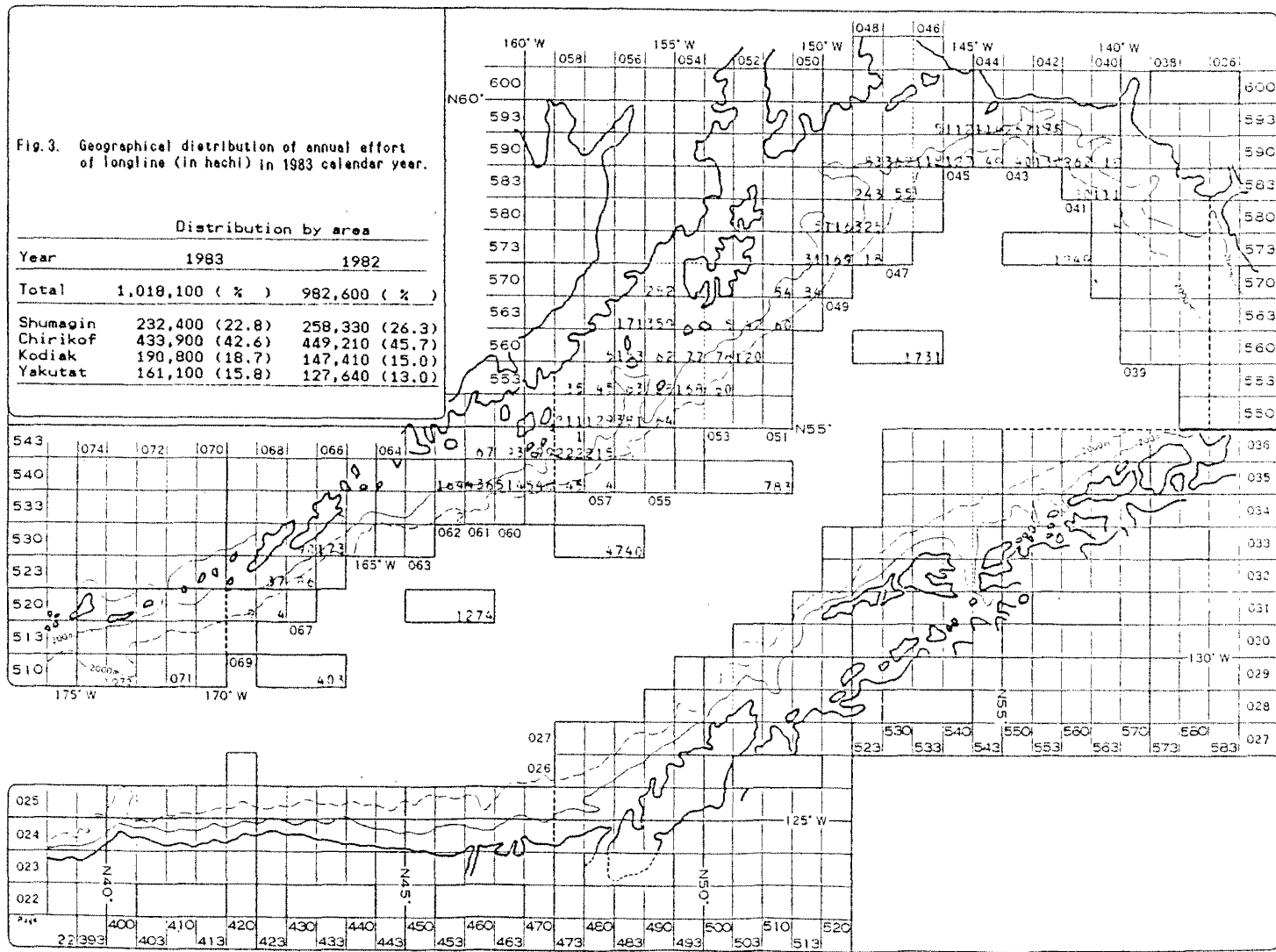


Fig. 4. Geographical distribution of annual catch of pollock(t) in 1983 calendar year.

Distribution by area		
Year	1983	1982
Total	45,752 ( % )	51,375 ( % )
Shumagin	16,369 (35.8)	18,658 (36.3)
Chirikof	23,264 (50.8)	25,457 (49.5)
Kodiak	6,078 (13.3)	7,198 (14.0)
Yakutat	41 (0.1)	26 (0.1)
Vancouver	- ( - )	38 (0.1)

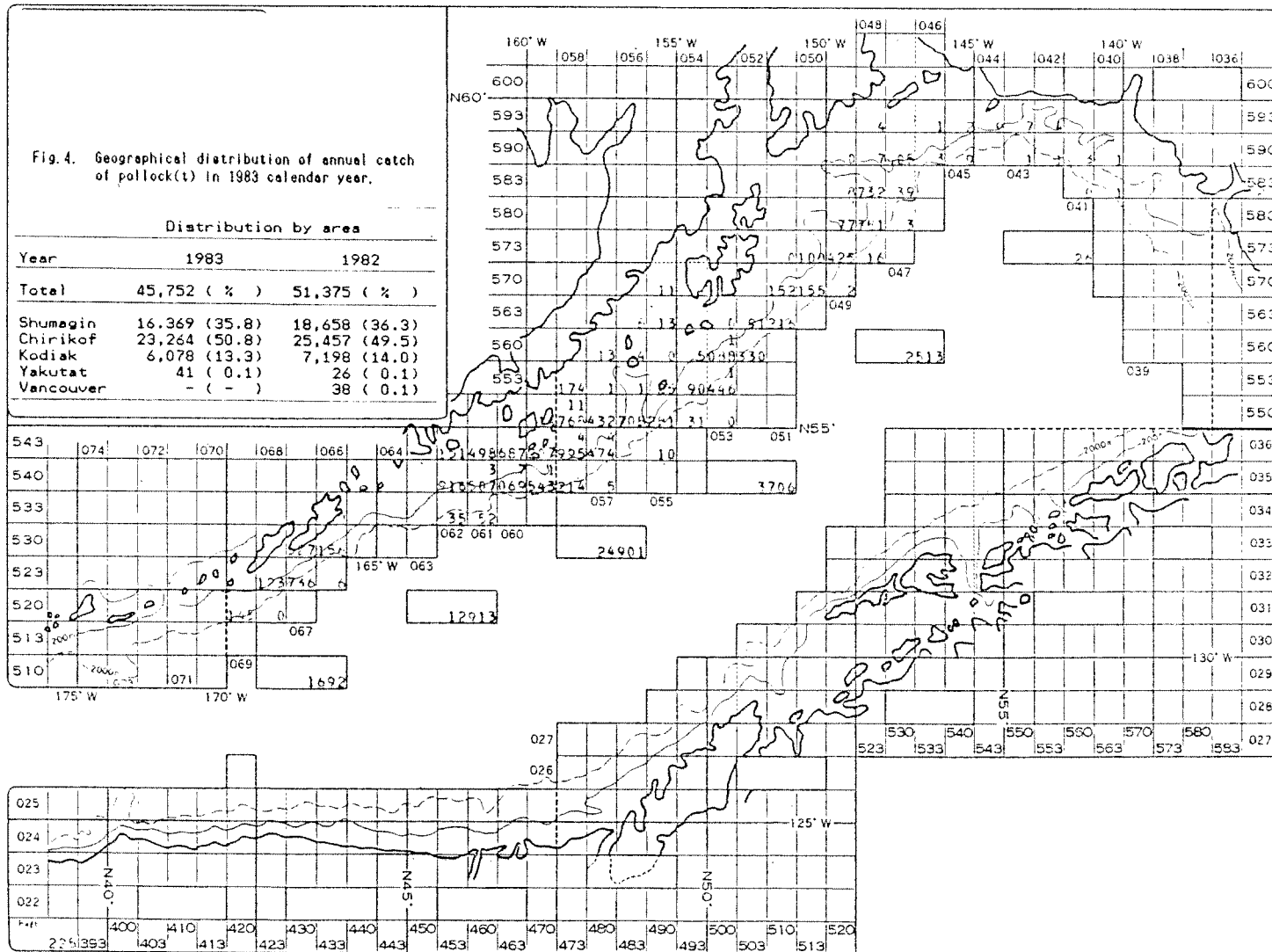
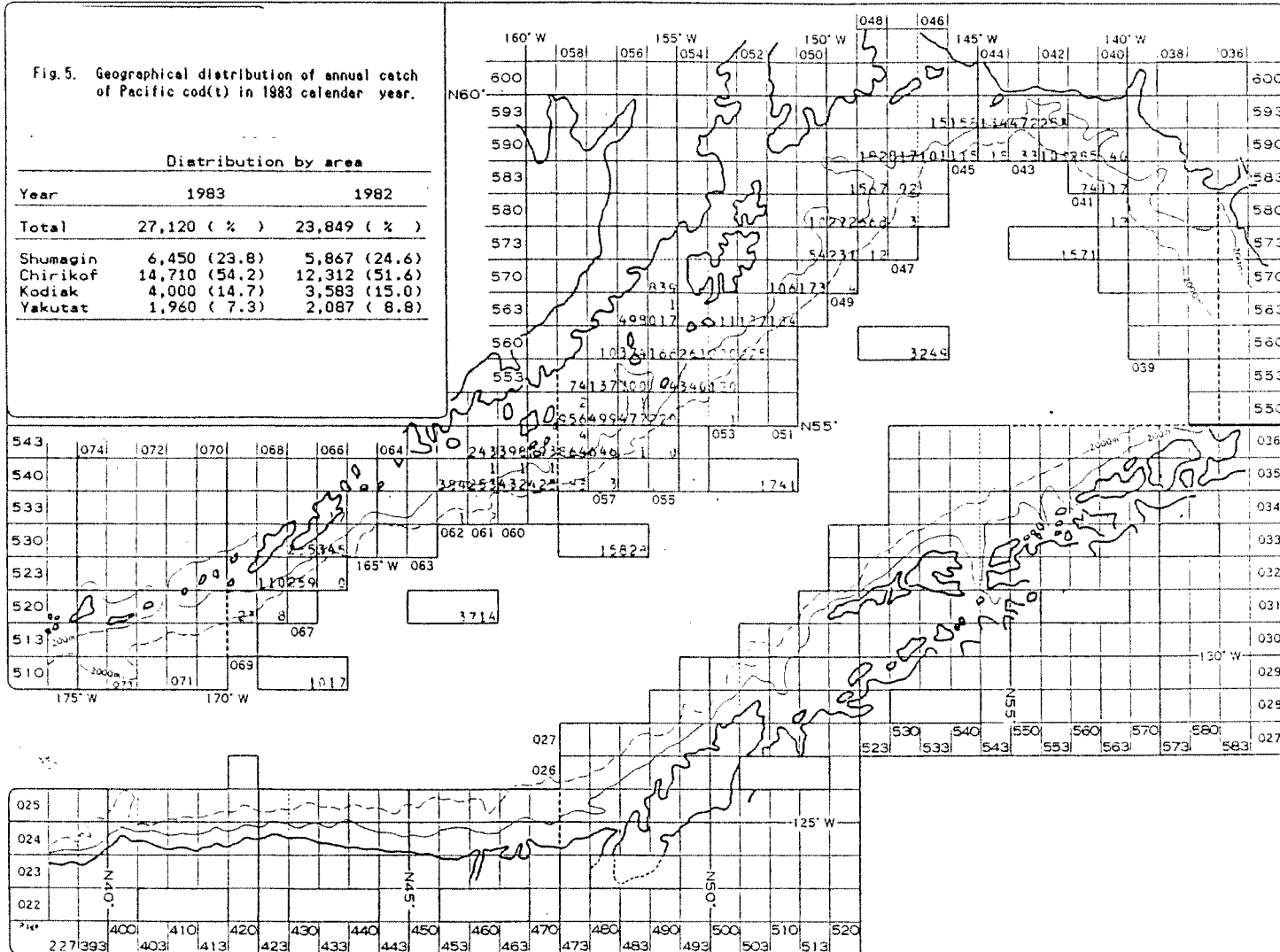


Fig. 5. Geographical distribution of annual catch of Pacific cod(t) in 1983 calendar year.

Distribution by area

Year	1983	1982
Total	27,120 ( % )	23,849 ( % )
Shumagin	6,450 (23.8)	5,867 (24.6)
Chirikof	14,710 (54.2)	12,312 (51.6)
Kodiak	4,000 (14.7)	3,583 (15.0)
Yakutat	1,960 (7.3)	2,087 (8.8)



Scale 1:100,000

Not to be cited by INPFC  
Document number

INPFC  
Doc. 2783

TRANSLATION

OUTLINE OF THE JAPANESE GROUND FISH FISHERY IN THE NORTHEAST PACIFIC  
IN 1983 JANUARY TO DECEMBER AND 1984 JANUARY TO JULY

Kazuyuki Teshima  
Fisheries Agency of Japan  
1984 August

THIS PAPER MAY BE CITED IN THE FOLLOWING MANNER:  
Teshima, Kazuyuki. 1984. Outline of the Japanese  
groundfish fishery in the northeast Pacific in 1983  
January to December and 1984 January to July.  
(Document submitted to the International North  
Pacific Fisheries Commission.) 4 p. Fisheries  
Agency of Japan, Tokyo, Japan 100.

1. Japanese groundfish fishery in 1983 (January to December)

Japanese groundfish fisheries in the northeast Pacific in 1983 continued to be conducted under extreme conditions, such as allocation of catch quotas and time-area closures brought about by the U.S. Fisheries Conservation and Management Act of 1976 and the extension of Canadian fisheries jurisdiction to 200 miles under the Territorial Seas and Fishing Zones Act.

In 1983, 40 trawlers and 22 longline-gillnetters in the North Pacific trawl (stern trawl) and the North Pacific longline-gillnet fisheries were licensed to operate in the northeast Pacific (Fig. 1). The number of vessels actually operating in 1983 were 21 stern trawlers and 22 longliners (Table 1).

Total stern trawl effort in 1983 was 28,586 hours, a decrease of 3.4% (1,008 hours) from 1982 (Table 2). In 1983, all of this effort was expended in U.S. waters and there was no fishing effort in Canadian waters. There are surimi factory trawlers and frozen fish factory trawlers in the North Pacific trawl fishery and although the frozen fish factory trawlers expended a significant portion of the effort (85.9% of the total effort), their catch was just half (50.2%) of the total catch.

Total fishing effort by the longliners in 1983 was 1,018,100 hachi, an increase of 3.6% (35,500 hachi) from 1982. Longline fishing effort was all in U.S. waters with no longline operations in Canadian waters (Table 2).

The geographical distribution of the fishing effort (by the stern trawlers and longliners) is shown by fishery and by year in Figs. 2 and 3. The fishing grounds of the North Pacific trawl fishery were concentrated in the Kodiak Area where fishing effort of 12,339 hours (43.2% of the total effort) was expended. Effort by the longline



fishery in 1983 was concentrated mainly in the Shumagin-Yakutat Region, as in 1982. Compared with that in 1982, effort increased by 29.4% (43,390 hachi) in the Kodiak Area and 26.2% (33,460 hachi) in the Yakutat Area.

Fishing for halibut in the North Pacific Ocean was prohibited for all Japanese vessels according to the U.S. foreign fisheries regulations, as was the case in 1982.

The total catch by all fisheries in 1983 amounted to 96,507 t, a decrease of 5.0% (5,053 t) from the 101,560 t of 1982 (Table 3). Compared with 1982, there were increases in 1983 in catches of Pacific cod (3,270 t or 13.7% increase) and arrowtooth flounder (2,341 t or 76.5% increase). Decreases occurred in Pacific ocean perch (1,748 t or 37.8% decrease), sablefish (708 t or 14.8% decrease), pollock (5,623 t, 10.9% decrease), Greenland turbot (98 t or 41.9% decrease), and "other flatfish" (1,239 t or 41.9% decrease). The catch composition by species was: pollock, 47.4% (45,752 t), Pacific cod, 28.1% (27,120 t), arrowtooth flounder, 5.6% (5,403 t), and sablefish, 4.2% (4,087 t).

The total catch by the North Pacific trawl fishery in 1983 was 66,090 t, a decrease of 10.5% (7,741 t) from the previous year. Increases occurred in the catches of Pacific cod and arrowtooth flounder, as was the case in the above total catch.

The total catch by the North Pacific longline-gillnet vessels (longlining only) in 1983 amounted to 30,417 t, an increase of 9.7% (2,688 t) from 1982. No operations were conducted in Canadian waters in 1983, as in 1982.

Major species in the longline catch in 1983 were Pacific cod (83.2% or 25,317 t) and sablefish (12.5% or 3,797 t) (Table 3).

Of the total pollock catch of 45,752 t in 1983, 39,633 t (86.6%) was taken from the Shumagin and Chirikof Areas. In comparison with 1982, catches in the Shumagin, Chirikof, and Kodiak Areas showed decreases of 2,289 t (12.3%), 2,193 t (8.6%), and 1,120 t (15.6%), respectively (Fig. 4). Of the total pollock catch in 1983, 99.5% (45,501 t) was taken by the stern trawl fishery (Table 3).

Of the total catch of Pacific cod in 1983 (27,120 t), 78.0% (21,160 t) was taken from the Shumagin and Chirikof Areas. Compared with 1982, catches in the Shumagin, Chirikof, and Kodiak Areas increased but catch in the Yakutat Area decreased (Fig. 5). Of the total catch of Pacific cod (27,120 t), 93.4% (25,317 t) was taken by the longline fishery with the remaining 6.6% (1,803 t) taken by the stern trawl fishery (Table 3).

## 2. Japanese groundfish fishery in 1984 (January to July)

Japan licensed 40 trawlers and 22 longline-gillnetters for the North Pacific trawl and North Pacific longline-gillnet fisheries in 1984, the same as in 1983.

According to the preliminary 1984 information, total catch by those fisheries in the northeast Pacific during January to July 1984 amounted to 26,249 t, a decrease of 28% (10,067 t) from the catch made during the same period in 1983 (Table 4). In comparison with 1983, there were decreases in catches of all species. Of the total catch, Pacific cod (12,147 t) and pollock (9,790 t) constituted 84% of the total catch.

Of the 1984 catch to date by INPFC area, 45% was taken from the Chirikof Area, 41% from the Shumagin Area, and 14% from the Kodiak Area. In 1984 no operations were conducted in waters east of the Yakutat Area.

-----