

INDO-PACIFIC TUNA DEVELOPMENT AND MANAGEMENT PROGRAMME
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MAJOR FINDINGS FROM THE INDO-PACIFIC
HISTORICAL TUNA FISHERIES DATA SUMMARY
T. Sakurai

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MAJOR FINDINGS FROM THE INDO-PACIFIC HISTORICAL TUNA
FISHERIES DATA SUMMARY

By

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1. IMPORTANCE OF TUNA IN THE INDO-PACIFIC REGION

According to the statistics collected as shown in Table 1, the total tuna catch including billfishes and seerfishes in the Indian Ocean and the West Pacific Ocean was 1,638 thousand MT in 1982 or 62.8% of the world total for these species. Of this, the catch of the Indian Ocean accounted for 350 thousand MT or 13.4% and the catch of the West Pacific Ocean 1,288 thousand MT or 49.4%.

The catch by species groups was: 1,357 thousand MT of tunas and bonitos (60.6% of the total for this group); 52 thousand MT of billfishes (52.4% of the group total); and 228 thousand MT of seerfishes (84.7% of the group total).

Table 1 1982 World Tuna Catch by Ocean

<u>Ocean</u>	<u>Total</u>	<u>Tunas & bonitos</u>	<u>Species group</u>	
			<u>Billfishes</u>	<u>Seerfishes</u>
	MT %	MT %	MT %	MT %
World Total	2,607,136 (100.0)	2,237,892 (100.0)	99,537 (100.0)	267,707 (100.0)
Indian Ocean Total	350,164 (13.4)	262,452 (11.7)	10,734 (10.8)	76,978 (28.5)
W. Indian Ocean (Area 51)	255,867 (9.8)	185,323 (8.3)	8,356 (8.4)	62,188 (23.0)
E. Indian Ocean (Area 57)	94,297 (3.6)	77,129 (3.4)	2,378 (2.4)	14,790 (5.5)
West Pacific Ocean Total	1,288,284 (49.4)	1,095,193 (48.9)	41,411 (41.6)	151,680 (56.2)
N. W. Pacific Ocean (Area 61)	395,434 (15.2)	300,547 (13.4)	22,758 (22.9)	72,129 (26.7)
C. W. Pacific Ocean (Area 71)	845,083 (32.4)	750,846 (33.5)	14,686 (14.7)	79,551 (29.5)
S. W. Pacific Ocean (Area 81)	47,767 (1.8)	43,800 (2.0)	3,967 (4.0)	- (0.0)
East Pacific Ocean Total	399,497 (15.4)	365,225 (16.3)	21,916 (22.0)	12,356 (4.6)
Atlantic Ocean Total	569,191 (21.8)	515,022 (23.0)	25,476 (25.6)	28,693 (10.7)

Data Source : IPTP Data Summary No. 2 for Indian Ocean, and West Pacific Ocean.

FAO Yearbook for East Pacific Ocean and Atlantic Ocean.

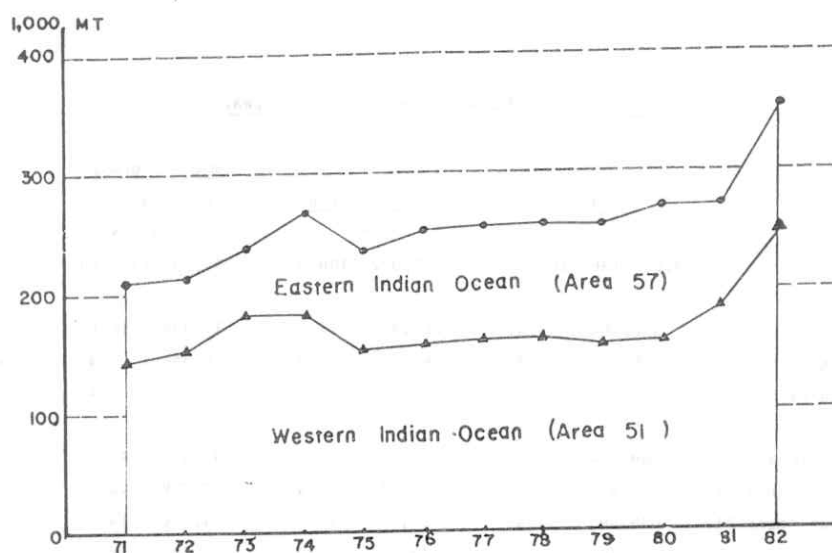
2. DEVELOPMENT OF TUNA FISHERIES IN THE INDO-PACIFIC REGION

2.1 Indian Ocean

In the Indian Ocean, as shown in Fig. 1, the catch of tunas including billfishes and seerfishes has increased in the past 12 years from 210 thousand MT in 1971 to 350 thousand MT in 1982. There was a sharp drop in the catch in 1975 which might be attributed to the influence of the world oil crisis.

There are two FAO areas in the Indian Ocean; Western Indian Ocean (Area 51) and Eastern Indian Ocean (Area 57). The catch of the Western Indian Ocean (Area 51) has increased during the past 12 years, by 107 thousand MT from 148 thousand MT in 1971 to 255 thousand MT in 1982, whereas the catch of the Eastern Indian Ocean (Area 57) has increased only by 32 thousand MT from 62 thousand MT in 1971 to 94 thousand MT in 1982. One of the remarkable changes in the Indian Ocean was a great increase in catch in Area 51 starting from 1981. Species whose catches increased significantly were YFT - yellowfin tuna (Thunnus albacares), BET - bigeye tuna (Thunnus obesus), ALB - albacore (Thunnus alalunga) and COM - narrow-barred king mackerel (Scomberomorus commerson).

FIG.1 TUNA CATCH IN INDIAN OCEAN

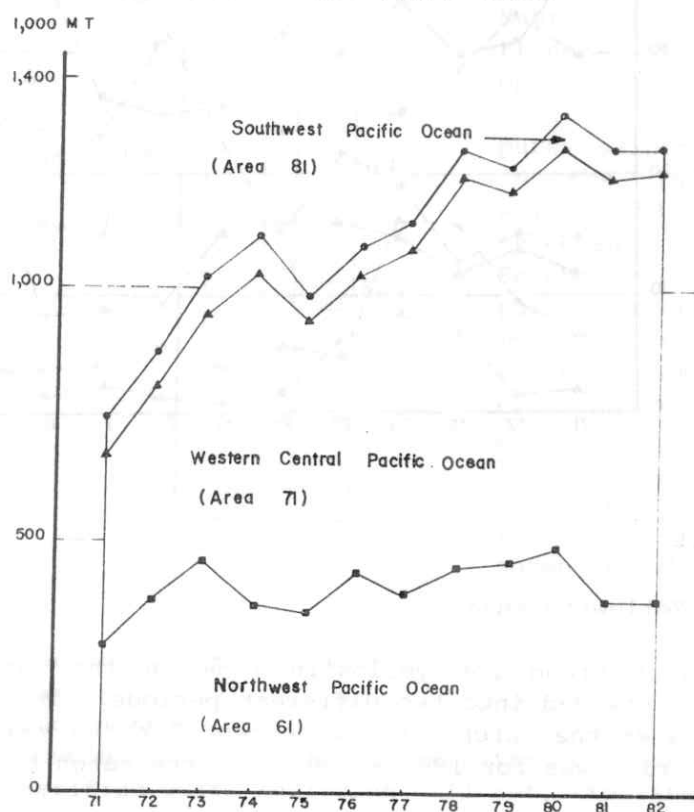


2.2 West Pacific Ocean

In the West Pacific Ocean, as shown in Fig. 2, the catch of tunas including billfishes and seerfishes increased from 733 thousand MT in 1971 to 1288 thousand MT in 1982. There was a sharp drop in the catch in 1975; similar to the situation in the Indian Ocean.

There are three FAO statistical areas in the West Pacific Ocean; Northwest Pacific Ocean (Area 61), Western Central Pacific Ocean (Area 71) and Southwest Pacific Ocean (Area 81). The catches in Areas 61, 71 and 81 in 1982 were 395, 845 and 47 thousand MT respectively. Tuna resources in area 81 have not been large compared to areas 61 and 71. A significant catch increase occurred in Area 71, Western Central Pacific Ocean, where the catch increased two fold in the past 12 years from 373 thousand MT in 1971 to 845 thousand MT in 1982. Species whose catches increased markedly in this area were YFT - yellowfin tuna (Thunnus albacares), SKJ - skipjack tuna (Katsuwonus pelamis), KAW - kawakawa (Euthynus affinis) and FRZ - frigate and bullet tunas (Auxis thazard and A. rochei).

FIG. 2 TUNA CATCH IN WEST PACIFIC OCEAN



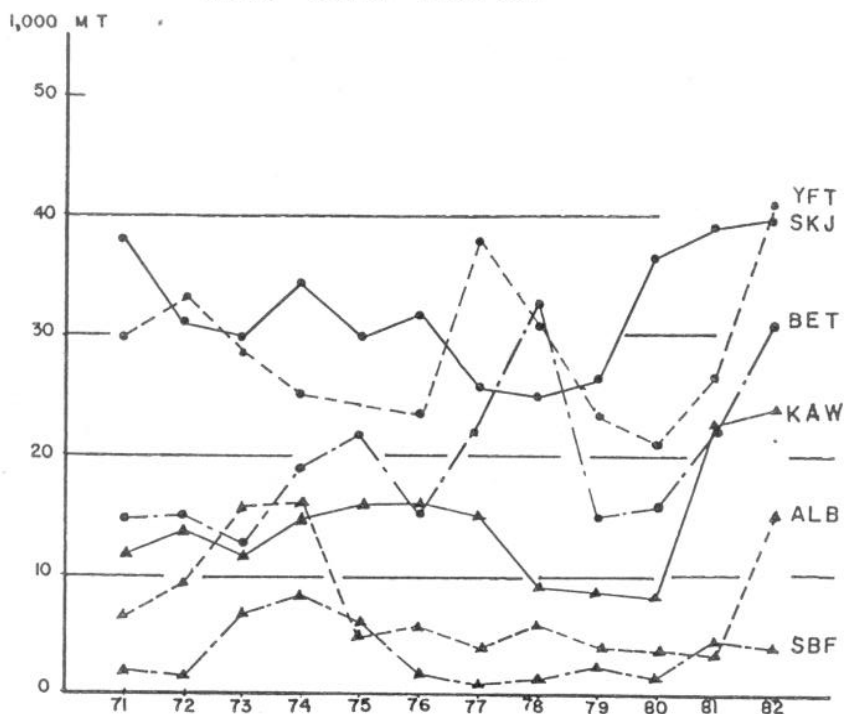
3. BRIEF NOTES ON MAJOR FINDINGS

3.1 Western Indian Ocean (Area 51)

3.1.1 General

There are two species groups with different catch levels in the Western Indian Ocean (Area 51) as shown in Fig.3. The first group includes yellowfin tuna and skipjack tuna with a comparatively high catch level compared to the second group including bigeye tuna, albacore and southern bluefin tuna. Yellowfin tuna and skipjack tuna were caught by coastal countries and more recently by purse seiners from France and Spain. Distant water fishing countries like Japan, Korea and China (Taiwan) exploited yellowfin tuna in a longline fishery. The second species group was primarily exploited by the longline fisheries of the distant water fishing countries.

FIG.3 CATCH TREND OF TUNAS IN WESTERN
INDIAN OCEAN (Area 51)



3.1.2 YFT - Yellowfin tuna

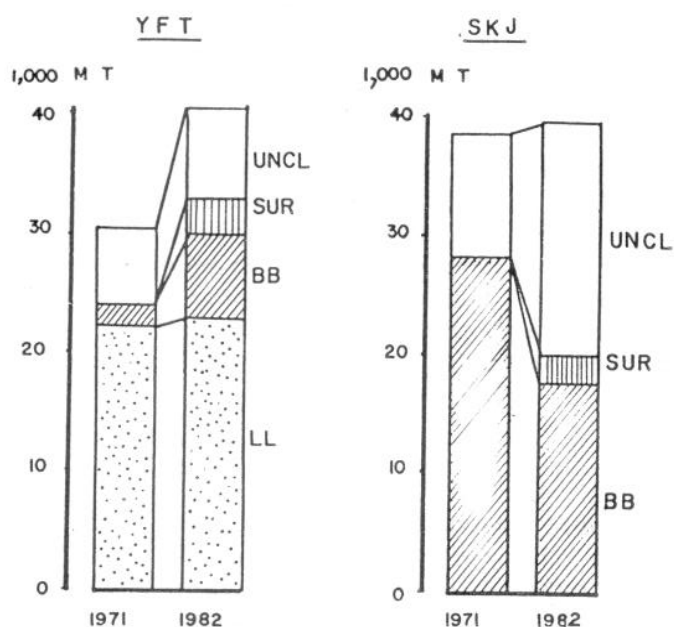
The catch trend for yellowfin tuna in the past 12 years (1971 - 1982), may be divided into two different periods. The first period was for 1971 - 1980 when the catch declined except for the years of 1977 and 1978. The second period was for 1981 - 1982 when the catch has increased.

The Maldives is one of the major fishing countries in the Indian Ocean not only for yellowfin tuna but also for skipjack tuna. The pole and line fishing gear employed in the tuna fishery in the Maldives catches yellowfin tuna as well as skipjack tuna. The catch of yellowfin tuna has increased from 1,200 MT in 1971 to 4,000 MT in 1982. The catch level in the recent 10 years remained between 3,500 and 5,500 MT, while the mechanization of fishing boats has been progressing from 1975 to date.

Sri Lanka is also one of the tuna fishing countries in this area. The types of gear employed in the tuna fishery are drift gill net, pole and line, troll and longline by artisanal fishermen. The catch of yellowfin tuna in Sri Lanka increased from 4,700 MT in 1971 to 8,300 MT in 1982. The increase is largely attributed to the introduction and expansion of drift gill nets in the tuna fishery. The catch of yellowfin tuna caught by the drift gill netters amounted to about 80% of the total catch of yellowfin tuna in Sri Lanka in 1982.

The catch level of longliners from the distant water fishing countries i.e. Japan, Korea and China (Taiwan) over the past 12 years from 1971 through 1982 has not changed significantly, as shown in Fig. 4, while the number of fishing boats has declined. This is mainly due to the increased effort by Korean longliners. The catch of yellowfin tuna increased from 6,500 MT in 1971 to 18,000 MT in 1982. Exceptionally high catches were recorded in 1977 and 1978 by Korean longliners.

FIG. 4 CATCH COMPOSITION BY GEAR
(Area 51)



A feature of change in this area has been the introduction of industrial tuna purse seiners since around 1980. A purse seiner has been in operation in Mauritius since 1979. France began exploratory operations in 1982 and Spain in 1983. In 1984, 21 French purse seiners were operating in the Indian Ocean, of which 18 have fishing agreements with the Seychelles. Seven Spanish purse seiners were operating in the Indian Ocean, and about 11 other vessels are expected to come in at the end of 1984. All the landings are presently made in the Seychelles. The latest data available are shown in Table 2.

(Note) Gear codes used in this report are:

LL : Longline

BB : Pole and line

SUR : Surrounding net including purse seine and ring net

UNCL : Unclassified gears including gill net, trolling, etc.

Table 2 Purse seine operation in the Indian Ocean

<u>Country:</u>			<u>Catch by species (MT)</u>			
<u>Operation Period</u>	<u>No. of vessels</u>	<u>Total</u>	<u>SKJ</u>	<u>YFT</u>	<u>ALB</u>	<u>BET</u>
	<u>operated</u>					
France:						
Jan. to June 83	4	6,653	4,370	2,283	-	-
July to Oct. 83	5	4,209	1,839	2,370	-	-
November 83	12	3,481	1,249	2,242	-	-
December 83	13	4,095	2,617	3,878	-	-
Spain:						
Feb. to July 84	7	6,010	1,300	4,400	250	60

3.1.3 SKJ - Skipjack tuna

Unlike yellowfin tuna, skipjack tuna were mainly caught by surface fisheries i.e. pole and line, gill net and purse seine. Traditionally, major countries producing skipjack tuna in this area were the Maldives and Sri Lanka. The catch of skipjack tuna by both countries was 99.0% of the total in 1971 and declined to 72.2% in 1982. The Maldives maintained a catch level ranging between 12,000 and 23,000 MT per year for the recent 10 years with a high annual variability. The catch in Sri Lanka was ranged from 8,000 to 15,000 MT per year for the same period.

In India, there is a pole and line skipjack tuna fishery off the Lakshadweep islands. However, the catch statistics by species in India are available only since 1981. The catch of skipjack tuna was 2,300 MT in 1982.

The total catch trend of skipjack tuna in this area over the past 12 years (1971 - 1982) is as shown in Fig. 3. There was a decline in catch for 1971 - 1978 and a catch increase for 1979 - 1982. This implies that coastal countries as well as distant water countries, i.e. France, Mauritius, Pakistan, Seychelles and Spain, developed their fisheries for skipjack tuna in addition to those of the Maldives and Sri Lanka. The catch level is expected to increase in 1983 and 1984 as noted previously in section 3.1.2. on YFT.

3.1.4 BET - Bigeye tuna

Bigeye tuna in this area were caught by longliners with a few exceptions where they were caught in the surface fishery. The total catch was 31,000 MT in 1982, of which the catches of longliners from Japan, Korea and China (Taiwan) were 8,000, 18,000 and 3,000 MT respectively. Korean longliners target on bigeye tuna for the sashimi market in Japan. The catch trend was upward over the past 12 years (1971-1982) with high annual fluctuations.

In Kenya, two longliners operated since 1980, with a catch of bigeye tuna of 150 MT in 1982.

3.1.5 ALB - Albacore

Albacore were caught only by longliners in this area. The catch trend shows a slight decline in the past 12 years (1971 - 1982) with an exceptionally high catch by Chinese (Taiwan) longliners in 1982.

3.1.6 SBF - Southern bluefin tuna

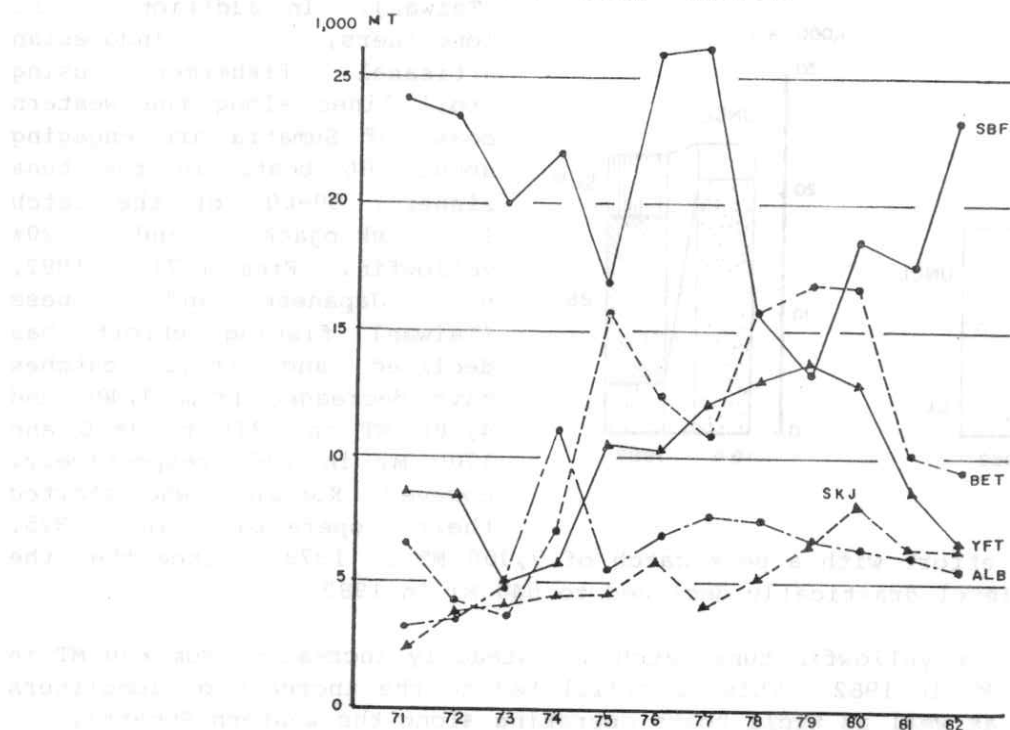
In this area, Southern bluefin tuna were predominantly caught by Japanese longliners. From 1971 - 1982, there was a peak catch of 8,200 MT in 1974. The catch then declined until 1977. From 1978, the catch increased and reached 4,000 MT in 1982.

3.2 Eastern Indian Ocean (Area 57)

3.2.1 General

In this area, Southern bluefin tuna resources were heavily exploited compared to other species. The catch levels of species like BET - bigeye tuna, YFT - yellowfin tuna, ALB - albacore and SKJ - skipjack tuna were comparatively low, between 5,000 and 10,000 MT per year for each species as indicated in Figure 5.

FIG-5 CATCH TREND OF TUNA IN EASTERN
INDIAN OCEAN (Area 57)



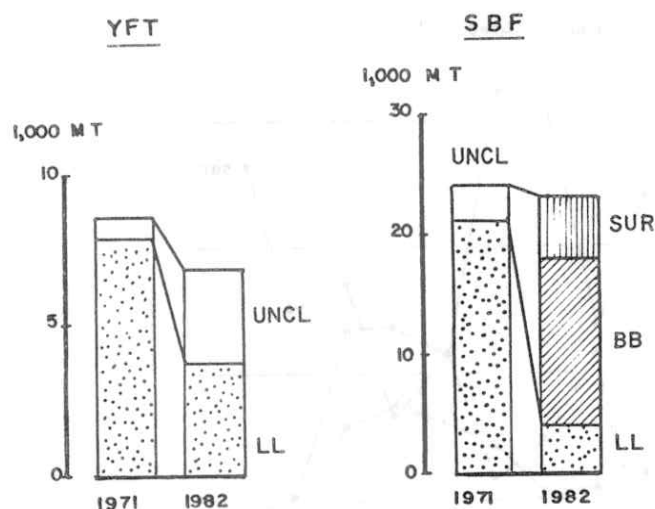
3.2.2 SBF - Southern bluefin tuna

In this area, only two countries, Australia and Japan, are operating in the fishery for southern bluefin tuna. The Japanese longline fishery began in the 1950's and its catch increased until around the beginning of the 1960's. Subsequently the catch declined slowly and reached 21,000 MT in 1971, further declining to 4,000 MT in 1982. Meanwhile, the Australian surface fishery with pole and line and purse seine, which started in the 1950's, has recently developed more rapidly. Its catch level has increased from 3,000 MT in 1971 to 19,000 MT in 1982.

For many years, Australia and Japan have exchanged annual catch, effort and size composition data, later including New Zealand when its domestic fishery commenced. In 1982, they initiated co-operative stock assessment studies of this species, and are maintaining close liaison to ensure that progressive updating of their analyses of the stock condition is undertaken as soon as each year's catch composition data become available. Regulatory measures controlling the fishing are currently being undertaken by each country to conserve the resources.

3.2.3 YFT - Yellowfin tuna

FIG. 6 CATCH COMPOSITION BY GEAR
(Area 57)



In this area, yellowfin tuna are mainly caught by longliners from Indonesia, Japan, Korea and China (Taiwan). In addition to the longliners, Indonesian artisanal fishermen using troll lines along the western coast of Sumatra are engaging about 500 boats in the tuna fishery; 50-60% of the catch is skipjack and 20% yellowfin. From 1971 - 1982, both Japanese and Chinese (Taiwan) fishing effort has declined and their catches have decreased from 3,400 and 4,600 MT in 1971 to 1600 and 1700 MT in 1982 respectively. However, Koreans, who started their operation in 1975,

increased the effort with a peak catch of 7,000 MT in 1979. Since then the Korean catch level drastically declined to 540 MT in 1982.

Indonesian yellowfin tuna catch has steadily increased from 600 MT in 1971 to 3,000 MT in 1982. This is attributed to the increase of longliners based at Bali as well as troll boats operating along the western Sumatra.

3.2.4 BET - Bigeye tuna

Bigeye tuna in this area were mainly caught by Japan, Korea and China (Taiwan) longliners. Japan and China (Taiwan) have strengthened their efforts to catch bigeye tuna because of high prices, and their catches have increased from 2,000 and 2,300 MT in 1972 to 3,700 and 5,000 MT in 1982 respectively. However, Korean's bigeye tuna catch has rapidly decreased from a peak catch of 10,800 MT in 1979 to 900 MT in 1982.

3.2.5 ALB - Albacore

Albacore were caught in this area by longliners especially those from China (Taiwan). The Chinese (Taiwan) catch in the past 10 years (1973 - 1982) was maintained at a level of 5,000 - 9,000 MT.

3.2.6 SKJ - Skipjack tuna

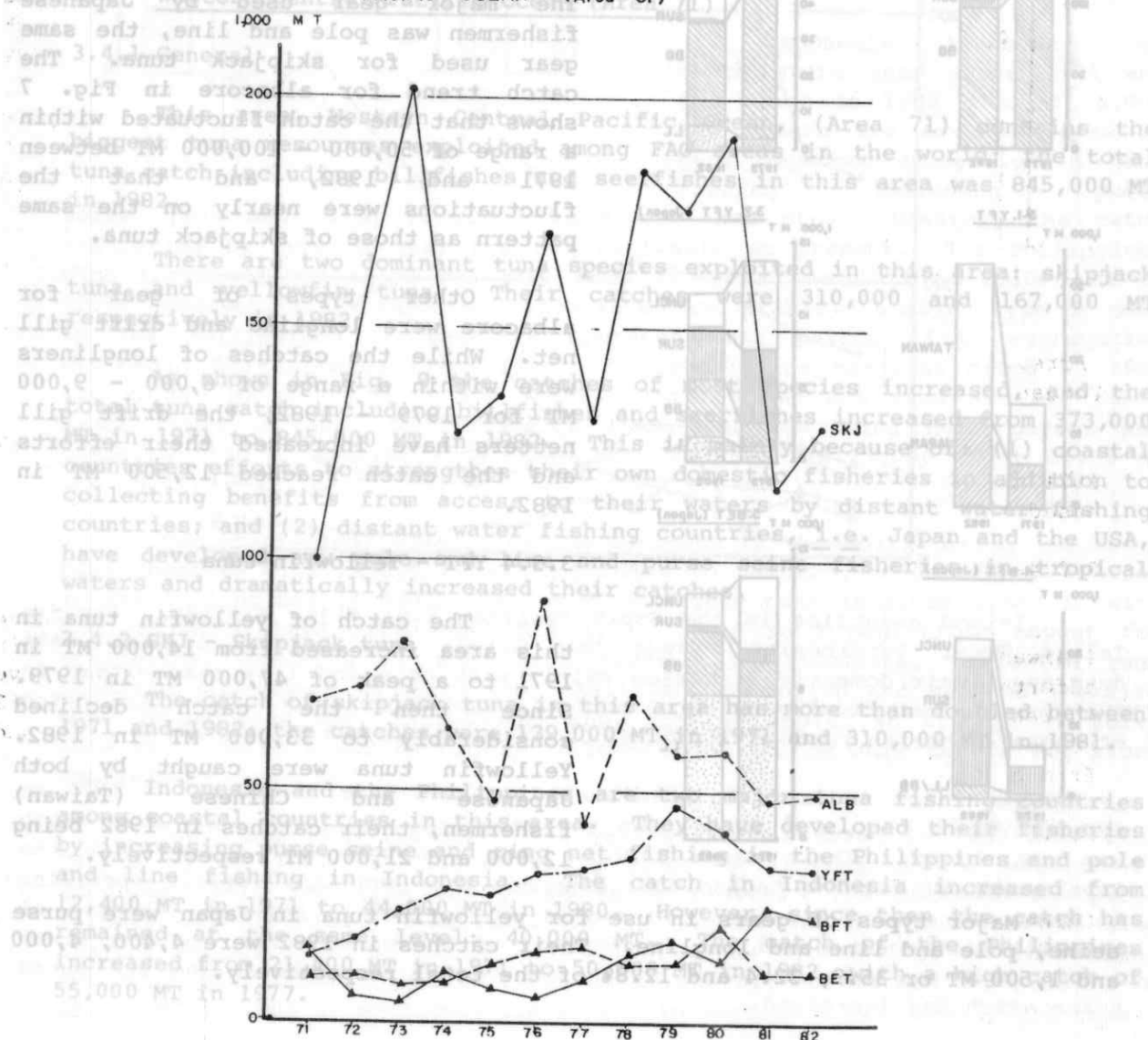
Skipjack tuna in this area were caught predominantly by Indonesian artisanal fishermen with purse seiners in north Sumatra, and trollers and gill netters in western Sumatra and West Java. The catch level increased from 2,400 MT in 1971 to 6,600 MT in 1982.

3.3 Northwest Pacific Ocean (Area 61)

3.3.1 General

There were four countries i.e. China, China (Taiwan), Japan and Korea which operated fisheries for the tuna and tuna-like species in this area. China and Korea were, however, harvesting only Japanese Spanish mackerel (*Scomberomorus nipponius*) among the many tuna and tuna-like species, although they caught tuna incidentally in small quantities.

FIG 7 CATCH TREND OF TUNAS IN NORTHWEST PACIFIC OCEAN (Area 61)

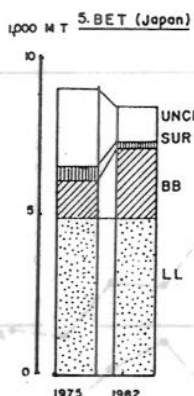
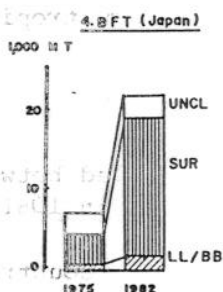
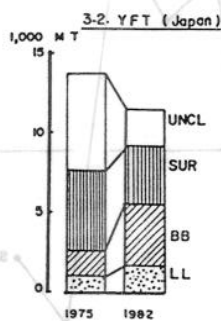
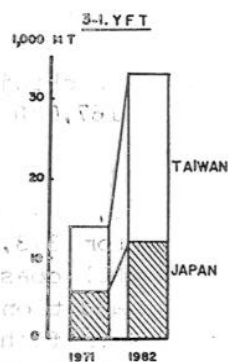
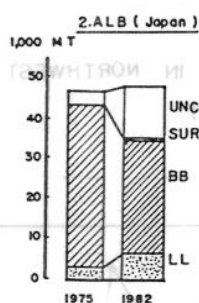
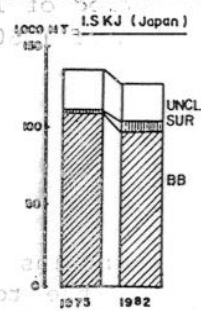


Thus, the substantial tuna fishing countries in this area were Japan and China (Taiwan). Between these two countries, Japan caught about 80% of the total catch of tunas and billfishes.

3.3.2 SKJ - Skipjack tuna

The skipjack tuna catch was over 100,000 MT annually with large fluctuations ranging from 100,000 - 200,000 MT from 1971 - 1982. Skipjack tuna were mainly caught by Japanese fishermen in this area: 99% of the total in 1971 and 97.8% in 1982. Their major type of gear was pole and line with about 80% of the total catch taken by this type of gear. Purse seine was another type of gear used to catch skipjack tuna, with a catch of 7,000 MT or 5.8% of the total in 1982.

Fig. 3 CATCH COMPOSITION BY GEAR (Area 61)



3.3.3 ALB - Albacore

Albacore were caught in this area mainly by Japanese fishermen who caught 98.6% of the total in 1982. The major gear used by Japanese fishermen was pole and line, the same gear used for skipjack tuna. The catch trend for albacore in Fig. 7 shows that the catch fluctuated within a range of 50,000 - 100,000 MT between 1971 and 1982, and that the fluctuations were nearly on the same pattern as those of skipjack tuna.

Other types of gear for albacore were longline and drift gill net. While the catches of longliners were within a range of 6,000 - 9,000 MT for 1979 - 1982, the drift gill netters have increased their efforts and the catch reached 12,500 MT in 1982.

3.3.4 YFT - Yellowfin tuna

The catch of yellowfin tuna in this area increased from 14,000 MT in 1971 to a peak of 47,000 MT in 1979. Since then the catch declined considerably to 33,000 MT in 1982. Yellowfin tuna were caught by both Japanese and Chinese (Taiwan) fishermen, their catches in 1982 being 12,000 and 21,000 MT respectively.

Major types of gears in use for yellowfin tuna in Japan were purse seine, pole and line and longline. Their catches in 1982 were 4,400, 4,000 and 1,500 MT or 35.9, 32.4 and 12.8% of the total respectively.

3.3.5 BFT - Northern bluefin tuna

Northern bluefin tuna in this area were mainly caught by Japanese fishermen: 99% of the catch was caught by them in 1982. Their major fishing gear was the purse seine, its catch being 17,000 MT or 77% of the total in 1982.

As shown in Fig. 7, the catch has increased over the past 12 years (1971 - 1982) from 4,800 MT in 1973, when the catch was the lowest, to 22,200 MT in 1982, with some fluctuations.

3.3.6 BET - Bigeye tuna

Bigeye tuna were caught in this area by both Japanese and Chinese (Taiwan) fishermen, but mainly by Japanese. Their main gear was the longline. Pole and line and purse seine gears were also used for bigeye tuna. The catch trend is shown in Fig. 7. There was a peak period of 1976 and 1977 and since then the catch has declined with the exception of 1980.

3.4 Western Central Pacific Ocean (Area 71)

3.4.1 General

This area, Western Central Pacific Ocean, (Area 71) contains the biggest tuna resources exploited among FAO areas in the world; the total tuna catch including billfishes and seerfishes in this area was 845,000 MT in 1982.

There are two dominant tuna species exploited in this area: skipjack tuna and yellowfin tuna. Their catches were 310,000 and 167,000 MT respectively in 1982.

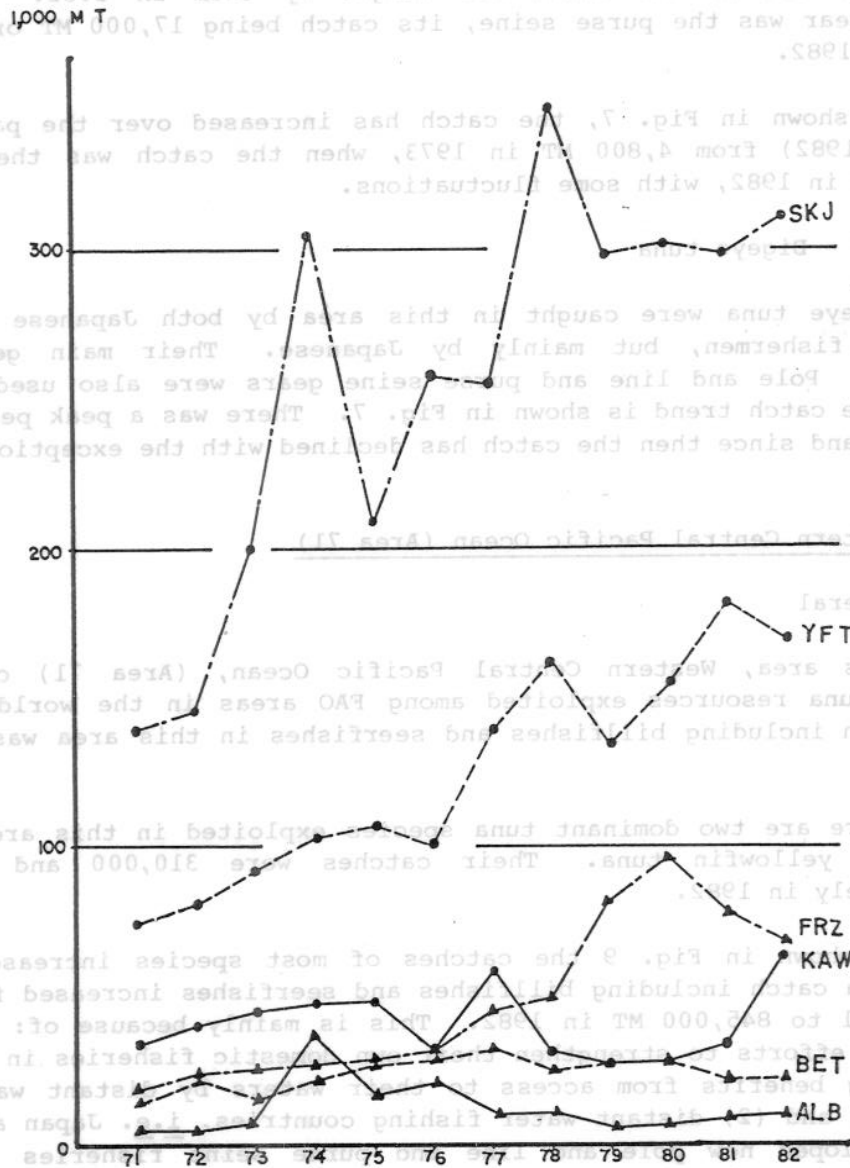
As shown in Fig. 9 the catches of most species increased, and the total tuna catch including billfishes and seerfishes increased from 373,000 MT in 1971 to 845,000 MT in 1982. This is mainly because of: (1) coastal countries efforts to strengthen their own domestic fisheries in addition to collecting benefits from access to their waters by distant water fishing countries; and (2) distant water fishing countries, i.e. Japan and the USA, have developed new pole and line and purse seine fisheries in tropical waters and dramatically increased their catches.

3.4.2 SKJ - Skipjack tuna

The catch of skipjack tuna in this area has more than doubled between 1971 and 1982; the catches were 139,000 MT in 1971 and 310,000 MT in 1981.

Indonesia and the Philippines are two major tuna fishing countries among coastal countries in this area. They have developed their fisheries by increasing purse seine and ring net fishing in the Philippines and pole and line fishing in Indonesia. The catch in Indonesia increased from 12,400 MT in 1971 to 44,000 MT in 1980. However, since then the catch has remained at the same level: 40,000 MT. The catch of the Philippines increased from 21,400 MT in 1971 to 50,000 MT in 1982, with a high catch of 55,000 MT in 1977.

FIG-9 CATCH TREND OF TUNAS IN WESTERN CENTRAL
PACIFIC OCEAN (Area 71)

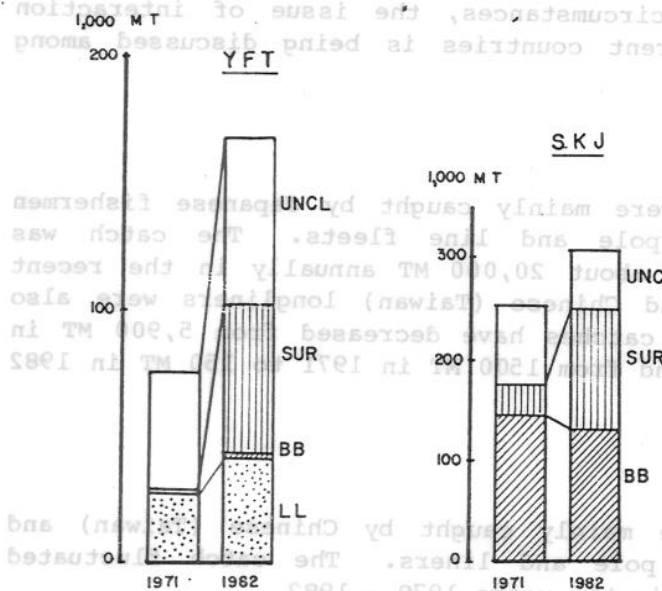


Island countries in the South Pacific, *i.e.* Fiji, Kiribati, Pacific Island Trust Territories, Papua New Guinea and Solomon Islands have developed their domestic fisheries mainly with pole and line gear either in the form of domestically-owned companies or joint ventures. The total catch of these countries reached 53,000 MT or 17.2% of the total in 1982.

The catch of Japan in this area increased from 79,000 MT in 1971 to 197,000 MT in 1978, and since then the catch has declined. The 1982 catch was 128,000 MT. Their major fishing gear was pole and line. With the development of fishing technology, Japanese pole and line vessels operating in tropical waters increased in number up to 1975. However, because of economic difficulties and the development of the purse seine fishery, since around 1978 the pole and line catch has tended to decline, and the purse seine catch has increased.

FIG-10 CATCH COMPOSITION BY GEAR

(Area 71)



The USA joined in the purse seine fishery around 1980 and strengthened their efforts in this area. The 1982 USA catch was 27,000 MT. The USA purse seine fleet reportedly increased its fishing efforts markedly in 1983. A reported 60 USA purse seiners operated in the Western Pacific Ocean in 1983 and landed 104,000 MT of skipjack and 49,000 MT of yellowfin tuna.

3.4.3 YFT - Yellowfin tuna

The catch of yellowfin tuna increased from 73,800 MT in 1971 to 180,000 MT in 1981 and decreased slightly to 167,000 MT in 1982.

Indonesia increased its catch every year since 1971 and the catch in 1982 reached 16,000 MT. There are several types of gear employed in yellowfin tuna fishing including purse seine, pole and line, longline, hook and line etc. However, the catch statistics by type of gear are not available at present. The Philippines also increased its catch markedly from 35,000 MT in 1971 to 69,000 MT in 1978. However, since then the catch level was stable. A major type of gear in the Philippines is handline operated near payaos (fish aggregating devices), and catching large fish. The Philippine handline catch in 1982 was 28,000 MT or 54.5% of the total. Purse seine and ring net are other major types of gear for yellowfin tuna, and operating near payaos and catching fish of smaller size: the catch in 1982 was 17,000 MT or 34.0% of the total.

For statistical classification purposes in the Philippines, yellowfin tuna combines with bigeye tuna. According to sampling conducted at 5 sites in the Philippines in 1982, the ratio of bigeye tuna landings mixed in with the yellowfin tuna catch was only 1.7%. This is a negligible amount for statistical analysis of the catch trend. In Indonesia, yellowfin tuna combines with tunas (*Thunnus* spp), sailfish, swordfish and marlins (*Makaira* spp, *Tetrapturus* spp, *Istiophorus* spp, *Xiphias* spp). An attempt to solve this shortcoming would be highly recommendable in the near future for stock analysis.

Japan has also increased its yellowfin tuna catch in this area from 24,000 MT in 1971 to 71,000 MT in 1982 by increasing the efforts of longline, pole and line and purse seine fleets. The increase by purse seiners was especially remarkable in the recent years. The USA has also started an operation of purse seine fleet since around 1980 in this area. The catch of yellowfin tuna in 1982 was 14,000 MT, and it was reported to be 49,000 MT in 1983 as mentioned previously in section 3.4.2 on skipjack tuna.

Eleven Korean purse seine vessels were reported to have operated in this area in 1983. Island countries i.e. Fiji, Kiribati, Papua New Guinea, Solomon Is., etc have also increased their efforts in fishing for yellowfin tuna.

Under the above mentioned circumstances, the issue of interaction between different gears and different countries is being discussed among scientists.

3.4.4 BET - Bigeye tuna

Bigeye tuna in this area were mainly caught by Japanese fishermen with longline, purse seine and pole and line fleets. The catch was maintained at a constant level of about 20,000 MT annually in the recent years for 1978 - 1982. Korean and Chinese (Taiwan) longliners were also fishing for bigeye tuna and their catches have decreased from 5,900 MT in 1977 to 690 MT in 1982 for Korea and from 1500 MT in 1971 to 150 MT in 1982 for China (Taiwan).

3.4.5 ALB - Albacore

Albacore in this area were mainly caught by Chinese (Taiwan) and Japanese longliners and Japanese pole and liners. The catch fluctuated within a range of 5000 - 10,000 MT in the years 1978 - 1982.

3.5 Southwestern Pacific Ocean (Area 81)

3.5.1 General

As previously observed in Fig. 2, the Southwestern Pacific Ocean, Area 81, has not had high catches of tuna resources as compared with other areas. The biggest tuna catch including billfishes and seerfishes in this area was 73,000 MT in 1973. Since then the catch has decreased to 47,000 MT in 1982.

Major tuna species exploited in this area are albacore and southern bluefin tuna.

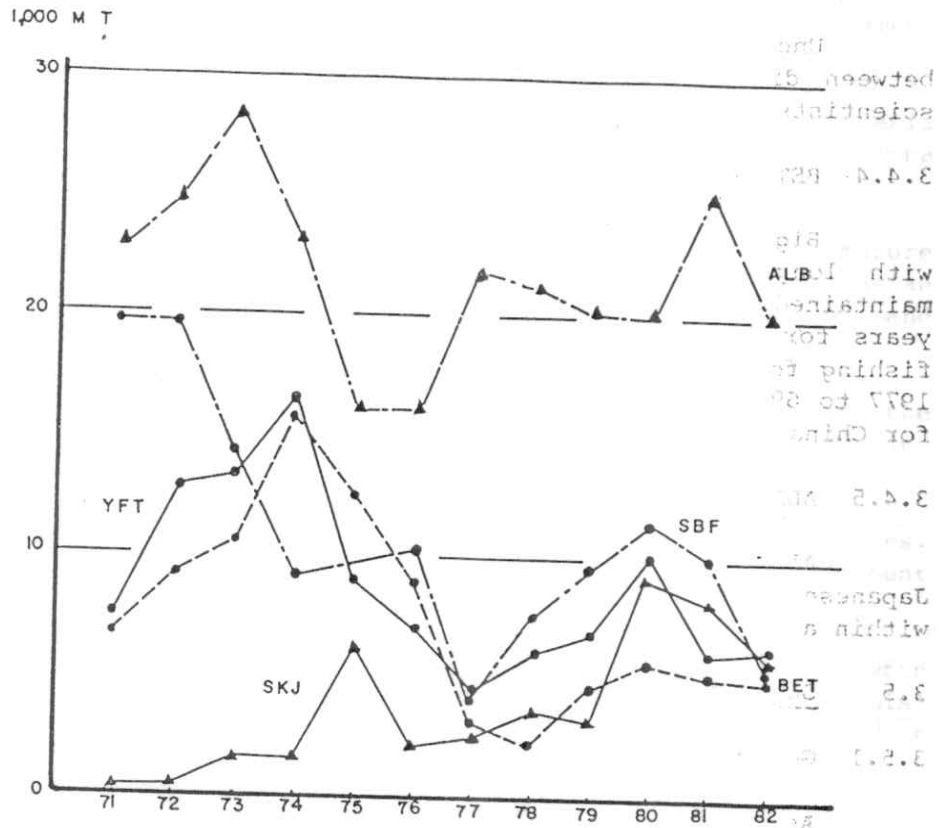
3.5.2 ALB - Albacore

The catch level of albacore in this area was stable at over 20,000 MT annually from 1971 to 1982 except for 1975 and 1976. In this area, Korean and Chinese (Taiwan) longliners were major producers of albacore. Their catches were 11,000 and 4,600 MT respectively in 1982. Japanese longliners also operated in this area, but their production was not high compared to Korea and China (Taiwan); the catch was 1,700 MT in 1982. New Zealand started a troll fishery for albacore in the 1960's. The catch has increased and was 2,400 MT in 1982.

3.5.3 SBF - Southern bluefin tuna

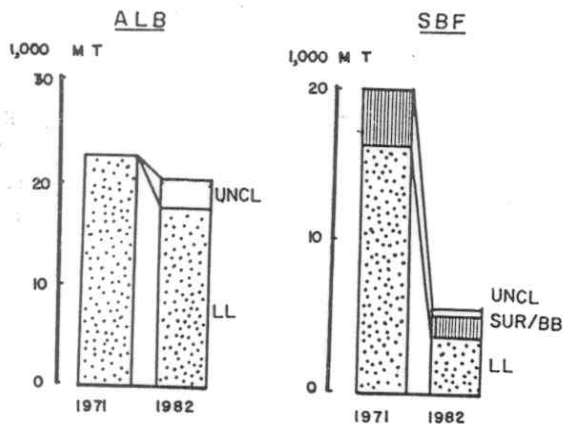
Southern bluefin tuna in this area are traditionally caught by Japanese fishermen with longline for large fish, and by Australian fishermen with purse seine and pole and line for smaller fish. New Zealand fishermen started fishing with handline since 1980. The catch has decreased in the past 12 years from 19,600 MT in 1971 to 5,400 MT in 1982.

FIG-11 CATCH TREND OF TUNAS IN SOUTHWEST
PACIFIC OCEAN (Area 81)



This is mainly due to the decline in the Japanese catch. The Japanese longline catch has decreased from 12,800 MT in 1971 to 3,500 MT in 1982.

FIG-12 CATCH COMPOSITION BY GEAR
(Area 81)



The Australian catch level fluctuated within a range of 1500 - 5000 MT in the years 1971 - 1982 with some exceptions.

As mentioned in the section on the Eastern Indian Ocean (Area 57), scientists of Australia, Japan and New Zealand exchange catch and effort and size frequency data and hold meetings to discuss the stock situation annually. Consequently, southern bluefin tuna fisheries are currently operated under regulations taken by each country to conserve the resources.

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