JOINT IATTC AND WCPFC-NC WORKING GROUP MEETING ON THE MANAGEMENT OF PACIFIC BLUEFIN TUNA
SIXTH SESSION (JWG-06)

ELECTRONIC MEETING
8am-11am, Japan Standard Time
27-29 July 2021

REPORT ON CMM 2020-02 (PACIFIC BLUEFIN TUNA)

IATTC-NC-JWG06-2021/DP-05

JAPAN

FISHERIES AGENCY
MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES, GOVERNMENT OF JAPAN
1-2-1, Kasumigaseki, Chiyoda-ku, Tokyo 100-8907, Japan

July 9, 2021

Feleti P. Teo
Executive Director
Western and Central Pacific Fisheries Commission
P.O. Box 2356, Kolonia,
Pohnpei, Federated States of Micronesia, 96941

Dear Mr. Teo,

In accordance with paragraph 11 of the conservation and management measure for Pacific bluefin tuna (CMM2020-02), Japan submits a report explaining measures and actions it has introduced and been implementing for Pacific bluefin tuna (PBF).

Sincerely yours,

Miwako Takase
Miwako TAKASE
Japanese Commissioner to WCPFC

I. Overview of Japanese PBF Fisheries

Japan caught 12,897t of PBF in its commercial fisheries on an annual average basis between 2002 and 2004, which is the reference year of CMM 2019-02. Almost all PBF catches were made in the areas under the Japanese jurisdiction and those of coastal fisheries were made primarily within the territorial waters and internal waters. Also, fishing activities targeting PBF are usually seasonal and those fishing vessels target other species outside the PBF fishing season.

II. Characteristics of each PBF fishery

1. **Purse seine**

Purse seine is managed under the licensing system by the Minister for Agriculture, Forestry and Fisheries. The main target species of purse seine are jack mackerel and mackerel, and PBF is caught only during its migration season in the following three fishing grounds:

(i) Western Japan ground: 1 year-old fish are caught by 23 vessels.
(ii) Pacific ground: mainly adult fish are caught by 25 vessels.
(iii) Northern Japan ground: mainly adult fish are caught by 10 vessels.

2. **Longline**

Longline is managed under the licensing system by the Minister for Agriculture, Forestry and Fisheries (Distant and Offshore LL) as well as Wide Sea-area Fisheries Adjustment Commissions (Coastal LL). The main target species of longline are bigeye, yellowfin, and albacore. Longline catches mostly adult PBF. PBF catches by about 437 vessels are seasonal.

3. **Artisanal (mostly Troll)**

Troll is managed under the licensing system by Wide Sea-area Fisheries Adjustment Commissions. It is conducted by small artisanal vessels (smaller than 5 GRT) with one or two fishermen on board. This fishery is traditionally conducted along the Japanese coastlines, frequently in isolated islands and remote peninsulas. Most of the fishing grounds are within the territorial waters. The fishing season is a few months and those vessels are engaged in other fisheries such as squid jigging or bottom longline when PBF does not migrate.

4. **Set net (trap)**

Set net is managed through the licensing system by the governors of prefectures. Set nets are located in territorial waters or internal waters. Since set net is a passive fishing method waiting for any fish to swim into the net, the amount of catch depends on fish migration and it is not easy for fishermen to control the catch. PBF catches are less than 1% of all catches by set nets. The catch of set nets fluctuates substantially year by year. The number of set net licensed was 1,784 in 2020.

In January 2011, the Ministry of Agriculture, Forestry and Fisheries issued an administrative guidance that requested relevant prefectural governments with the authority to manage this fishery not to increase the number of licenses of set nets whose main catch include PBF.

5. **Other fisheries**

Other fisheries include pole &line, hand line and drift net, and most of their PBF catches are by-catches.

III. Measures taken by Japan for PBF Management

The government of Japan has a policy of implementing a PBF conservation and management program applicable to the entire PBF fishing activities, based upon the WCPFC decisions and ISC advice.

Since the peak of the fishing season, in general, was toward the end of year, coastal PBF fisheries had been managed by initially setting a management period from July 1 to June 30. However, since

it turned out that catches in April had been lowest between 2015 and 2017, the government decided to change the management period to April 1 through March 31 beginning in 2019.

On the other hand, the fisheries managed under the licensing system by the Minister of Agriculture, Forestry and Fisheries use a calendar year as the management period.

These management periods are stipulated in the footnote of CMM 2019-02.

1. Regulation (Paragraph 2, 3 and 4 of CMM 2019-02)

(1) Effort Limitation in terms of fishing vessel

a. Artisanal fisheries

Registration system (ended in March 31, 2014)

For artisanal fishery – mostly troll fishery– operating in the Northern and Western area of Japan, a registration scheme was introduced instead of the registration system, as of April 1, 2011, under which all small-scale fishing vessels fishing for PBF were required to register. Such registration was accompanied by mandatory reporting of their catch. This registration scheme was introduced to small scale fishing vessels operating in the Pacific side in April 1, 2012.

Licensing system (commencing on April 1, 2014)

While the registration system provided useful information on artisanal fisheries for PBF, the system itself could not control the fishing effort of those fisheries. Therefore, from April 2014, the licensing system has been introduced to regulate the effort. All the vessels fishing for PBF are now obliged to obtain a license issued by the Wide Sea-area Fisheries Adjustment Commission which is responsible for rational use of fishing grounds. The Wide Sea-area Fisheries Adjustment Commission can regulate the fishing effort under the supervision of the national government. This revision also corresponds to the agreement at WCPFC10 on elimination of the exemption for those fisheries on the fishing effort control. In 2020, 18,138 vessels were licensed.

b. Other fisheries

As stated above, fishing efforts of purse seine fisheries, longline fisheries and other fisheries are managed to be below the target level through the licensing system.

(2) Catch limit

a. Catch limit for small fish

In accordance with 50% small fish (fish less than 30kg) catch reduction commencing in 2015, Japan set its initial catch limit for small fish at 4,007t. In the 2020 management year, Japan's total catch limit for small fish was 4,238.1 tons (4,007 tons - 450 tons (transfer of catch limit for small fish to that for large fish in accordance with paragraph 3 of CMM 2019-02) + 681.1 tons (carry over from the previous management year in accordance with footnote 1 of CMM 2019-02)).

b. Catch limit for large fish

In accordance with paragraph 3 of the CMM2019-02, Japan set its initial catch limit for large fish – fish 30kg or larger – at 4,882t. In the 2020 management year, Japan's total catch limit for large fish was 6,159.5 tons (4,882 tons + 450 tons (transfer of catch limit for small fish to that for large fish in accordance with paragraph 3 of CMM 2019-02) + 527.5 tons (carry over from the previous management year in accordance with footnote 1 of CMM 2019-02) + 300 tons (transfer from Chinese Taipei in accordance with footnote 3 of CMM 2019-02)).

c. Major actions to improve management of catch limit

(i) A legally binding Total Allowable Catch (TAC) system that imposes penalties on violators has been introduced since 2018.

(ii) Improved monitoring and more frequent reporting as described in "4. Data collecting system".

(iii) Pilot projects to avoid bycatch in set nets have been conducted, such as development of gear configurations to avoid bycatch of PBF, installation of fish finders at set nets to detect PBF in nets and development of techniques for live release from set nets.

(3) Aquaculture

A registration system and mandatory reporting

Fries used for PBF farming in Japan are mainly caught by troll and purse seine fisheries. As a first step towards better management of PBF farming, starting in April 2011, all PBF aquaculture sites are required to register and report their farming activities, including information on caging and harvest. As of December 2020, 186 aquaculture sites were on the registration.

Administrative instruction on PBF aquaculture

As stated above, wild seeds for aquaculture are mainly caught by troll and purse seine fisheries. To prevent an increase in fry catches, the Minister of Agriculture, Forestry and Fisheries instructed prefectural governments in October 2012 not to increase the capacity of PBF farms which use wild seeds.

2. Monitoring of recruitment of juveniles (Paragraph 7 of CMM 2019-02)

In order to monitor recruitment abundance of age-0 fish in a timely manner, a monitoring survey using commercial troll fishing boats has been conducted since 2011 by the Fisheries Resources Institute (FRI) of Japan. In the 2020 survey, the data logger and transmitter were installed on 77 troll fishing boats in six prefectures (Mie, Wakayama, Kochi, Miyazaki, Nagasaki and Shimane) and data from 67 boats were available. Once the fishermen input their catch in number of fish and species into the data logger during the fishing operation, the catch information with geographic position and Sea Surface Temperature (SST) data are sent to the FRI via a cellular network on a real-time basis. Additionally, the researchers in FRI conduct hearing survey for fishermen directly during the fishing season to understand details of fisheries, for example, main target, body size and so on. These surveys can provide the preliminary recruitment abundance originating from each of two spawning periods and grounds such as May-June in the waters of Nansei Archipelago and July-August in the Northern area of Japan before the main fishing season of winter to spring. Based on the recruitment information, including that obtained through these surveys, the FRI reported the preliminary recruitment indices, which was standardized CPUE obtained through this monitoring system, to the Pacific Bluefin tuna working group of the International Scientific Committee for tuna and tuna-like species in the North Pacific (ISC) for their consideration to use the stock assessment.

3. Commercial Transaction (Paragraph 8 of CMM 2019-02)

(1) International Trade of Products derived from Pacific Bluefin tuna

- PBF Import in 2020

  According to the trade statistics of Japan, Japan imported 2,455t of PBF; 1,914t (78%) of products imported from Mexico followed by Korea (505t,21%), NZ (32t), Chinese Taipei (2t), U.S.A (1t) and Australia (0.7t). (Table1 and Figure1)

- PBF Export in 2020

  373t of PBF were exported from Japan in 2020; 83% of product was exported to China and 5% of product was exported to Thailand. (Table2 and Figure2)

Table1 and Figure1: The amount of import of PBF (Jan.-Dec. 2020) (unit: t)

	Fresh	Frozen	Total
Mexico	1913.5	0.0	1913.5
Korea	346.7	158.8	505.4
New Zealand	32.0	0.0	32.0
Chinese Taipei	1.7	0.0	1.7
U.S.A	1.1	0.0	1.1
Australia	0.7	0.0	0.7
Total	2295.8	158.8	2454.5

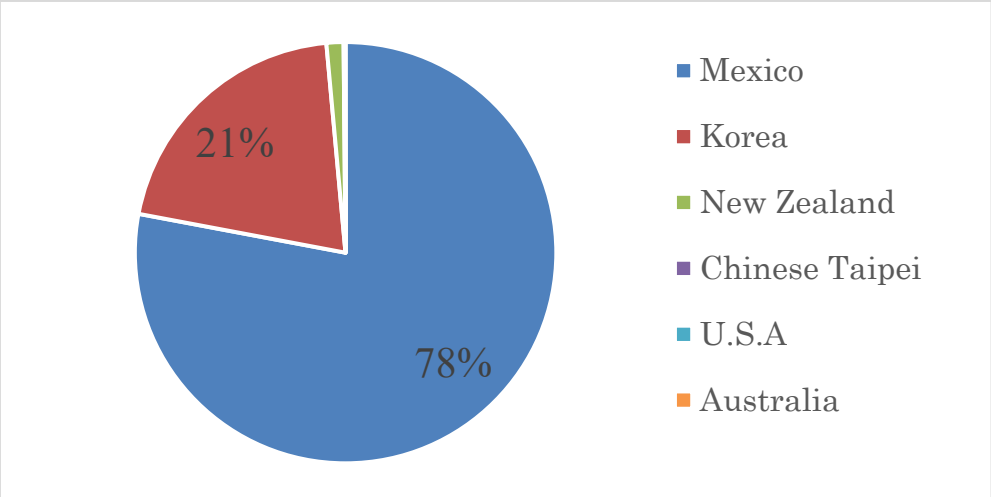
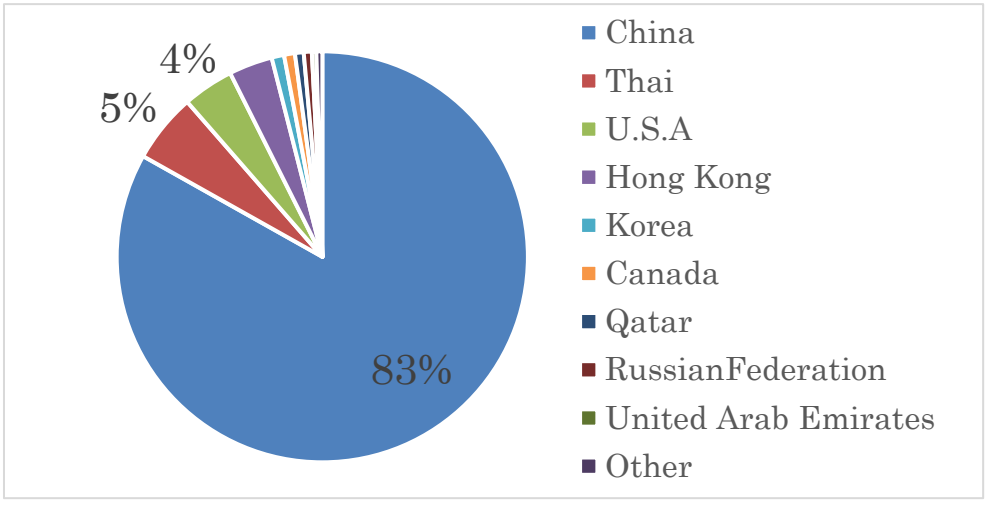


Table2 and Figure2: The amount of export of PBF (Jan.-Dec. 2020) (unit: t)

	Fresh	Frozen	Total
China	302.9	7.6	310.5
Thailand	20.2	0.1	20.3
U.S.A	15.0	0.0	15.0
Hong Kong	12.8	0.0	12.8
Korea	3.6	0.0	3.6
Canada	3.2	0.0	3.2
Qatar	2.6	0.0	2.6
Russian Federation	2.4	0.0	2.4
United Arab Emirates	1.3	0.0	1.3
Other	1.7	0.1	1.7
Total	365.7	7.8	373.4



● PBF Import in 2021 (As of April 31)

As of April 31, a total of 1,338t of PBF was imported in 2021; 1,081t (81%) of products imported from Mexico followed by Korea (243t, 18%).

(2) Strengthened data collection for import

a. Korea

In January 2010, a data collection system was established to require importers to make mandatory reporting for each import transaction when they import PBF from Korea. From March 2011, the number of size categories in the reporting format has been expanded from 5 categories to 7 categories in order to acquire more detailed data on import of juvenile fish:

Before February 2011:

smaller than 2kg, 2 - 3kg, 3 - 5kg, 5 - 50kg, over 50kg

After March 2011:

smaller than 2kg, 2 - 3kg, 3 - 5kg, 5 - 10kg, 10 - 30kg, 30 - 50kg, over 50kg

b. Mexico

Starting in February 2011, the same mandatory reporting has been applied to importers that import PBF from Mexico.

4. Data collecting system (Paragraph 10 of CMM 2019-02)

(1) Artisanal fisheries, set nets and other local fisheries

Prefectural governments monitor and collect the catch information from regional fisheries (including artisanal fisheries, set nets and other small fisheries) at least every month (daily reporting when more than 1 tons of PBF is harvested) and submit the data to the Japan Fisheries Information Service Center (JAFIC). The Japanese Fisheries Agency (JFA) monitors the data.

(2) Purse Seine

Fisheries associations collect the fishing report from purse seines every time of landing and report the information to JAFIC.

(3) Aquaculture

JFA collects the data about PBF aquaculture, including size and number of cages, the number of fries to be input, the sources of fries, the date of input and the amount of final products. The data about fries are treated separately divided into wild seeds and artificial seeds from hatcheries. JFA annually publishes the compiled data about PBF aquaculture.

Fries from wild are caught by purse seine and troll fisheries. In accordance with instruction by JFA, the number of fries put into aquaculture ponds from the purse seine fishery is monitored by stereo video cameras. Regarding fries from the troll fishery, troll fishermen directly sell them to aquaculture farmers, and sometimes to brokers who then sell them to farmers. In any case, the number of fries to be sold is reported to the fishery cooperative association by fishermen.

(4) Other fisheries

Other fisheries report the catch data directly to JFA. JFA checks the data and the aggregated catch volume is posted on the JFA's web-site and updated monthly.

5. Work with other IATTC members (Paragraph 13 of CMM 2019-02)

(1) In May 2011, the NC chair held a meeting with IATTC members who have fisheries for PBF in the eastern Pacific. Japan assisted the NC Chair's work and joined the meeting.

(2) During the 82nd IATTC meeting held in July 2011 at La Jolla, the Director General of JFA sent a letter to the Commissioner of Mexican Fisheries Agency (CONAPESCA) calling on Mexico to cooperate in establishing sound conservation and management measures for PBF in the eastern Pacific.

(3) During the 83rd IATTC meeting held in June 2012 at La Jolla, the Japanese delegation cooperated with IATTC member countries so that Conservation and Management Measures for PBF during 2012 and 2013 was adopted.

(4) During the 85th IATTC meeting held in June 2013 at Veracruz (Mexico), the Japanese delegation cooperated with IATTC member countries so that Conservation and Management Measures for PBF during 2014 was adopted.
(5) During the 87th IATTC meeting (Resumed) in October 2014 at La Jolla California (USA), the Japanese delegation consulted with major stakeholders, Mexico and US, so that Conservation and Management Measure for PBF between 2015 and 2016 was adopted.
(6) During the 90th IATTC meeting Japanese delegation cooperated with IATTC member countries so that IATTC agreed to hold the joint meeting with NC on Pacific Bluefin Tuna management during NC12.
(7) During the 90th IATTC meeting (Resumed) in October 2016 at La Jolla California (USA), the Japanese delegation consulted with major stakeholders, Mexico and the US, so that Conservation and Management Measure for PBF between 2017 and 2018 was adopted.
(8) During the 93th IATTC meeting held in August 2018 at San Diego (USA), the Japanese delegation consulted with major stakeholders, Mexico and the US, so that Conservation and Management Measure for PBF between 2019 and 2020 was adopted.
(9) During the 95th IATTC meeting held in November to December 2020 by videoconference, the Japanese delegation consulted with major stakeholders, Mexico and the US, so that Conservation and Management Measure for PBF during 2021 was adopted.

Reporting template for the CMM 2019-02 (Pacific bluefin tuna)

Table 1. Fishing effort by vessels fishing for Pacific bluefin tuna *in the area north of 20° N in the Convention Area*

Fishery	Unit of fishing effort (e.g., sets, fishing days, vessels)	2016	2017	2018	2019	2020
Purse Seine	Number of vessels	37	42	37	35	45
Longline Dist.&Off.	Number of vessels	536	514	484	439	437
Longline Coastal	Number of vessels	316	325	335	337	311
Artisanal fisheries	Number of vessels	24,044	22,557	18,147	18,127	18,138
Set Net	Number of licenses	1,816	1,816	1,784	1,784	1,784

Table 2-1. Catches (mt) in calendar year basis, including discards, of Pacific bluefin tuna *in the Convention Area* (include all the fisheries in the previous table, plus all other fisheries that catch any Pacific bluefin tuna)

Fishery		2016		2017		2018		2019		2020	
		<30 kg	≥30 kg	<30 kg	≥30 kg	<30 kg	≥30 kg	<30 kg	≥30 kg	<30 kg	≥30 kg
Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries	Purse Seine	1,938	3,027	1,219	3,273	1,006	3,033	1,328	3,131	783	3,165
	Longline Dist.&Off.	2	191	1	287	17	184	56	415	31	585
Other fisheries	Longline Coastal	180	339	271	389	85	447	112	440	118	725
	Artisanal fisheries	755	23	571	35	307	63	677	42	687	73
	Set Net	654	574	1,686	535	260	385	686	255	858	376
	Others	423	254	382	349	184	234	178	180	184	288
Total		3,951	4,407	4,131	4,868	1,859	4,347	3,037	4,463	2,660	5,212

Table 2-2. Catches (mt) in management year[*1] basis, including discards, of Pacific bluefin tuna *in the Convention Area* (include all the fisheries in the previous table, plus all other fisheries that catch any Pacific bluefin tuna)

Fishery		2016		2017		2018		2019		2020	
		<30 kg	≥30 kg	<30 kg	≥30 kg	<30 kg	≥30 kg	<30 kg	≥30 kg	<30 kg	≥30 kg
Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries	Purse Seine	1,938	3,027	1,219	3,273	1,006	3,033	1,328	3,131	783	3,165
	Longline Dist.&Off.	2	191	1	287	17	184	56	415	28	577
Other fisheries	Longline Coastal	152	377	270	487	83	232	111	466	118	755
	Artisanal fisheries	648	32	466	45	588	60	565	72	687	86
	Set Net	1140	512	1071	522	430	129	719	348	1,222	378
	Others	442	242	367	359	145	177	164	173	181	297
Total		4,321	4,382	3,395	4,974	2,270	3,815	2,943	4,604	3,019	5,257
Catch limit[*2]		4,007	4,882	3,424	5,132	3,757	5,132	3,757	5,132	4,238	6,160

[*1] Management year is as follows.

- 1st management period: January 2015 - December 2015 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries,
  January 2015 - June 2016 for Other fisheries.
- 2nd management period: January 2016 - December 2016 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries,
  July 2016 - June 2017 for Other fisheries.
- 3rd management period: January 2017 - December 2017 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries,
  July 2017 - June 2018 for Other fisheries.
- 4th management period: January 2018 - December 2018 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries,
  July 2018 - March 2019 for Other fisheries.
- 5th management period: January 2019 - December 2019 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries,
  April 2019 - March 2020 for Other fisheries.
- 6th management period: January 2020 - December 2020 for Fisheries licensed by the Ministry of Agriculture, Forestry and Fisheries,
  April 2020 - March 2021 for Other fisheries.

[*2] Catch limit is as follows.

- 2016 small fish: 4,007 tons
  large fish: 4,882 tons
- 2017 small fish: 4,007 tons - 250 tons (transfer from small fish to large fish) - 333.5 tons (overage in 2016 fishing year)
  large fish: 4,882 tons + 250 tons (transfer from small fish to large fish)
- 2018 small fish: 4,007 tons - 250 tons (transfer from small fish to large fish)
  large fish: 4,882 tons + 250 tons (transfer from small fish to large fish)
- 2019 small fish: 4,007 tons - 250 tons (transfer from small fish to large fish)
  large fish: 4,882 tons + 250 tons (transfer from small fish to large fish)
- 2020 small fish: 4,007 tons - 450 tons (transfer from small fish to large fish) + 681.1 tons (carry over from the previous management year)
  large fish: 4,882 tons + 450 tons (transfer from small fish to large fish) + 527.5 tons (carry over from the previous management year)
  + 300 tons (transfer from Chinese Taipei)