

Japan's report on Paragraph 10, CMM2017-08

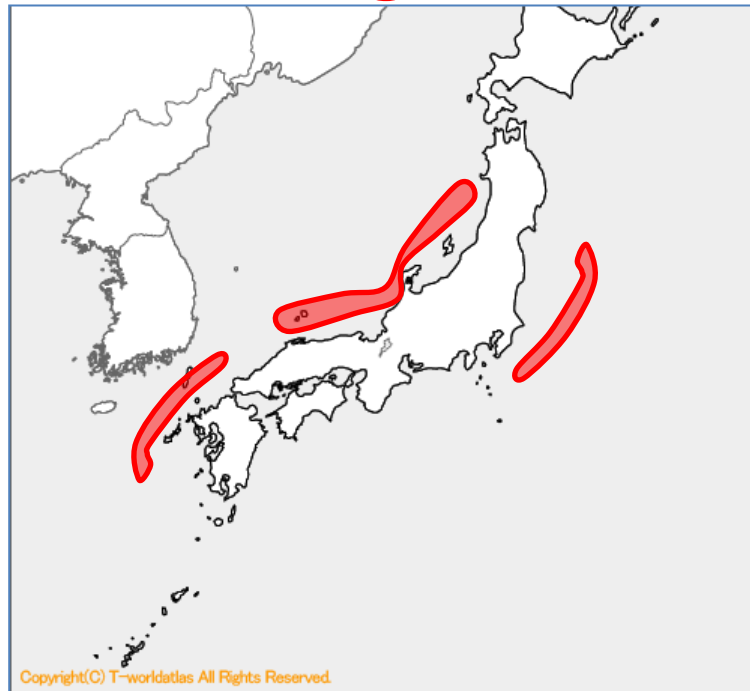


**Northern Committee Fourteenth Regular Session
September, 2018
Fukuoka, Japan**

I. General overview of Japan's PBF fisheries

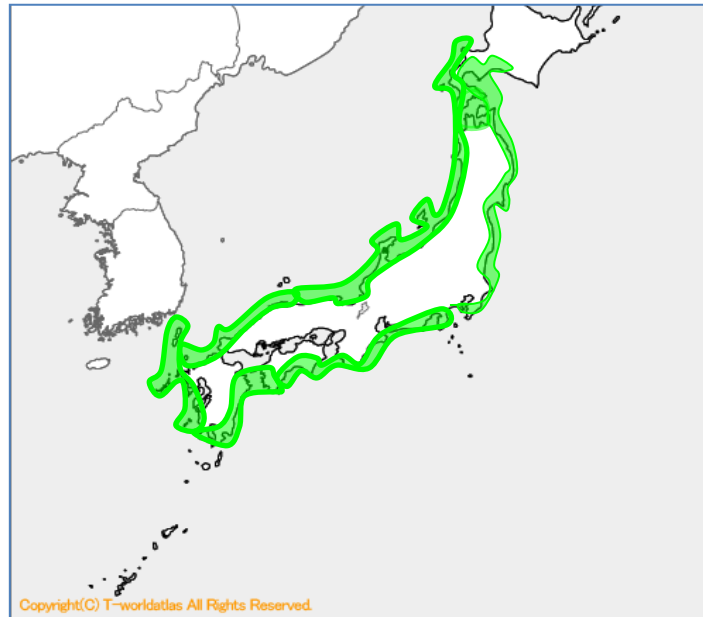
I-1. Purse seine fishery

- Managed under licensing system
- Main target species are jack mackerel and mackerel: PBF is caught only during its migration season
- An annual catch limit of **small fish** has been in place since 2011.
- An annual catch limit of **large fish** has been in place since 2015.



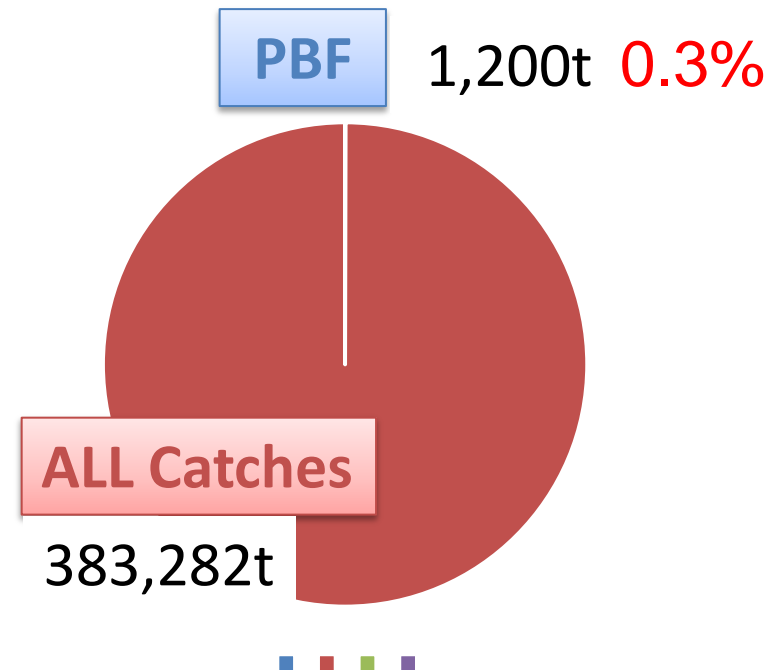
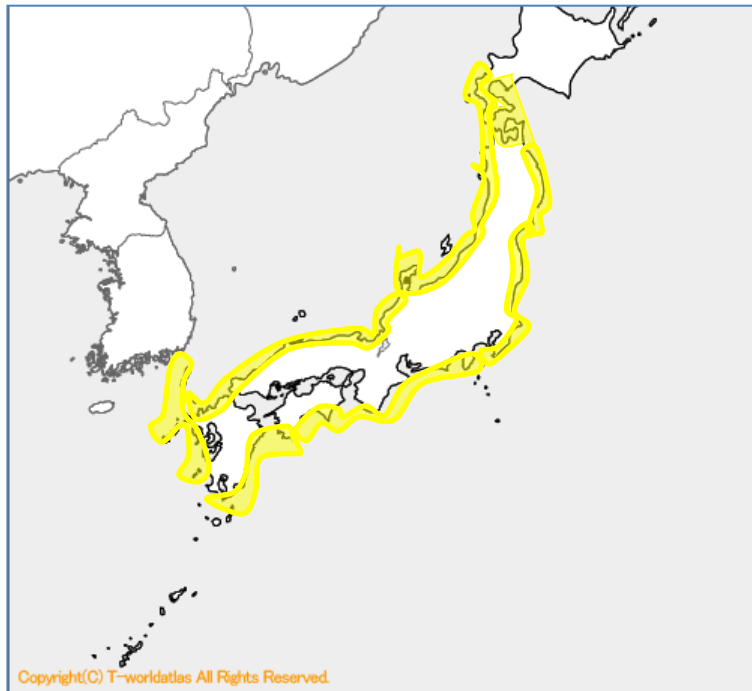
I-2. Artisanal Fisheries (Troll, Jigging, Handline, etc.)

- # of licenses: 24,044 vessels in 2015 to 22,511 vessels in 2018
- Mostly troll fishery:
 - Traditionally conducted throughout Japan, frequently in isolated islands and remote peninsulas
 - The typical period of fishing trip is one (1) day.
 - Most of the fishing grounds are within the territorial waters
 - The fishing season is a few months
- An annual catch limit of **small fish** has been in place since 2015



I-3. Set Nets (traps)

- Managed under licensing system: approximately 1,800
- **Passive fishing method waiting for any fish to swim into the net**
- **Catch depends on fish migration**
- **Not easy for fishermen to control the catch.**
- PBF catches are less than 1% of all catches.
- All the set nets are located in either internal waters or territorial waters.



Data: Agriculture, Forestry and Fisheries Statistics, 2016

II. Measure to implement Paragraph 2 & 3: Effort and Catch Control in 2017 fishing season

II-1. Small fish catch limit and allocation

	Initial catch limit (A)* ₁	Deduction of overage (B)	Final catch limit (A) - (B)
PS* ₂	1,500	0	1,500
Other offshore	106	0	106
Coastal	1885.3	146.1	1739.2
Reserve	265.7	187.4	78.3
Total	3,757	333.5* ₃	3423.5

*1. Japan's original limit for small fish was 4,007t.

*2 Purse seiners reduced its initial allocation from 2,000t to 1,500t. Out of 500t, 250t went to the catch limit for large fish, and the remaining 250t was reserved by the JFA.

*3. An overage of 333.5t was caused by coastal fisheries in 2nd period

II-2. Management of small fish catch by coastal fisheries

	1st management period Jan 2015 - Jun 2016	2nd management period Jul 2016 - Jun 2017	3rd management period Jul 2017 - Jun 2018
Management units	6 areas	6 areas, and a separate common management scheme for traps covering 17 prefectures	Each prefecture, and the separate common management scheme for traps covering 20 prefectures
Problems	Catch by traps in one area was so good, consuming large part of the area catch limit.	Large amount of catch caused overage of trap allocation for the common management scheme.	An extremely large amount of catches happened in one area in a short period (next slide)



II-3. The problem of traps in 3rd management period

1. Last September, more than 350mt of PBF was caught by traps during only 5 days. This caused overages of the allocation for the common management scheme for traps. (Allocation 581t vs. Catch 968t)
2. The fishermen monitored fish in their traps using fish finders and they assumed that fish in traps were yellow tails, not PBFs.
3. Why this happened;
 - a) Large amount of catch for the first day
 - b) They did not follow the request to refrain from fishing operation voluntarily.
 - c) They did not report their catch to the prefecture and JFA in a timely manner. (They should report everyday if the catch is larger than 1t.)

II-4. Stoppage of small fish fisheries

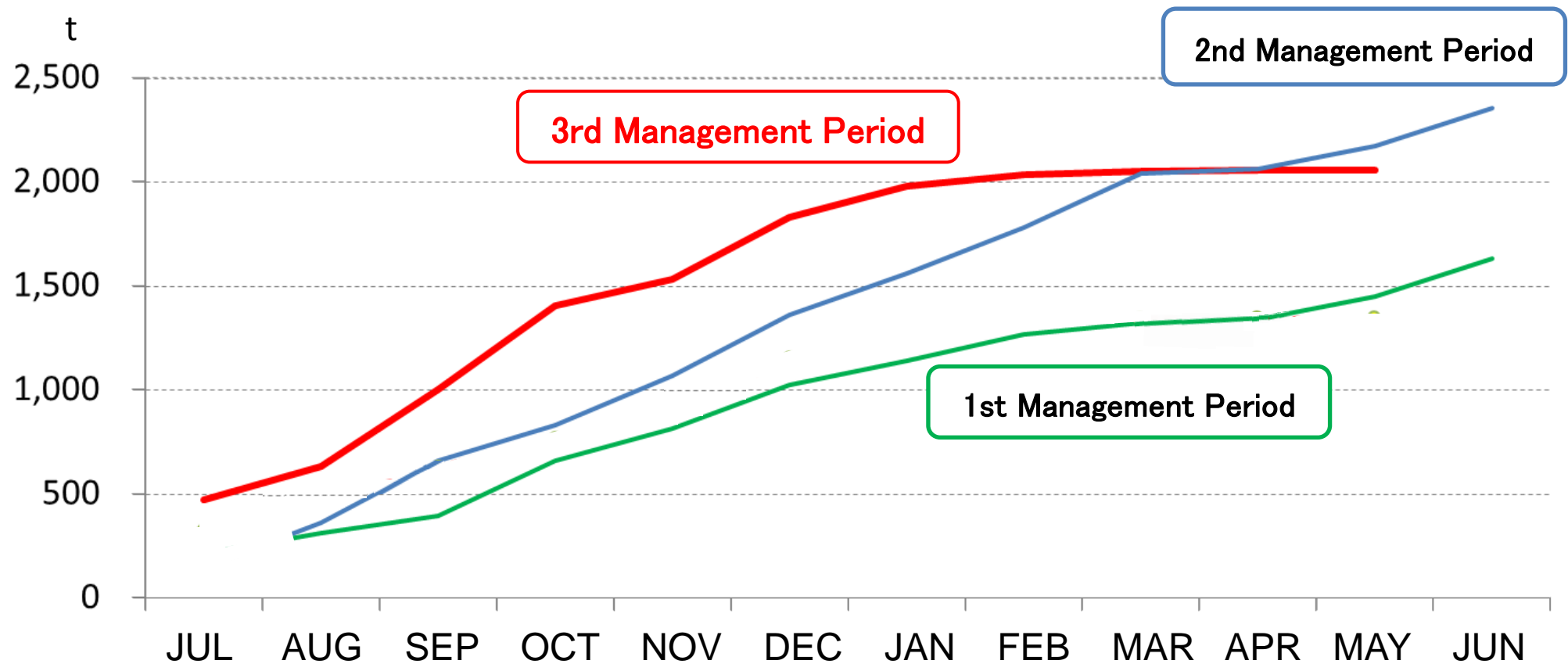
1. Due to the case of the traps (previous slide), on 23rd Jan. 2018, the small fish catches for coastal fisheries reached 93% of the quota and JFA requested coastal fishermen to refrain from fishing operation voluntarily.
2. After JFA's requests, the small fish catches for coastal fisheries grew very slowly, thanks to the efforts of all coastal fishermen.
3. Due to the overage of traps, other coastal fishermen had to refrain from fishing even when they still had unused allocation.
4. The total small PBF catch was contained within the limit of the 3rd Management Period

Catch of 3rd management period: 3,416.1t

Catch limit of 3rd management period: 3423.5t

II-5. Improved Fishing Condition in 2017 fishing season

The catch of small fish by coastal fisheries in the 3rd management period is increasing much faster than the previous period.



II-6. Challenges for coastal fisheries due to increasing migration

(1) Squid jigging

Squid jigging fishing boats use fishing lights to attract squid, but many PBFs aggregate to eat those squids and fisherman cannot catch squid.

(2) Yellowtail longline

PBF has not been incidentally caught by Yellowtail longline fishery for last 30 years, but recently, many PBFs (9-10kg) were hooked and some PBF cut the fishing line.

(3) Pole and Line and trolling for skipjack

They have to change their fishing ground or quit their fishing frequently to avoid PBF bycatch.

II-7.Challenges for traps due to increasing migration

The problem was more serious for traps since more PBF came into the nets and the catch increased despite efforts of fishermen to reduce the catch such as:

- (1) releasing PBF alive;
- (2) reducing the number of net retrievals; and
- (3) no net retrieving or even closing the entrance of traps, which sacrificed other species for conservation of PBF.



II-8. Measures to alleviate problems faced by traps

1. Development of gear configurations to avoid bycatch of PBF
2. Installation of fish finders
3. Development of techniques for live release
4. Compensation for loss of income caused by catch limit

II-9. Project for finding trap gear configurations to avoid PBF bycatch

【FY2018 Budget : 241,000USD】

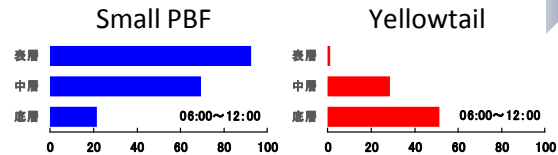
岩手県釜石(平成29年度)

To release PBF during net retrieval

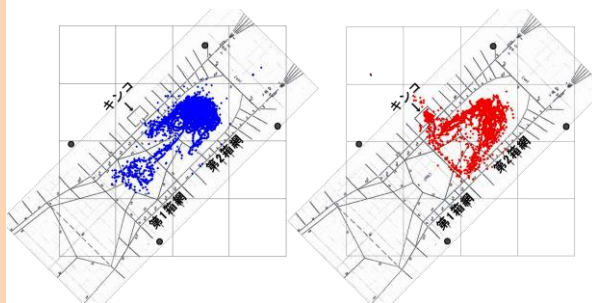
Difference of depth between small PBF and yellowtail

- PBF swim near surface
- Yellowtail swim deeper

応用



Difference of swimming pattern



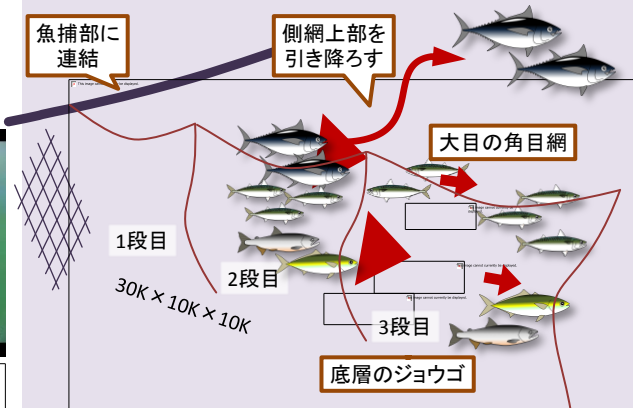
Small PBF swim away from net

Yellowtail swim close

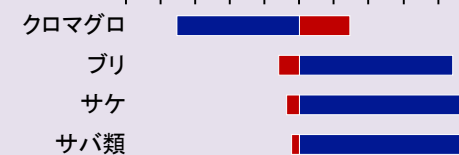


映像の例

Development of new net for separation

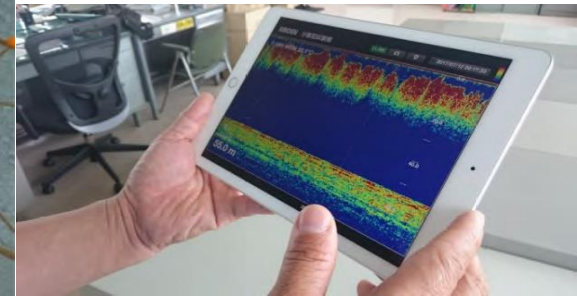
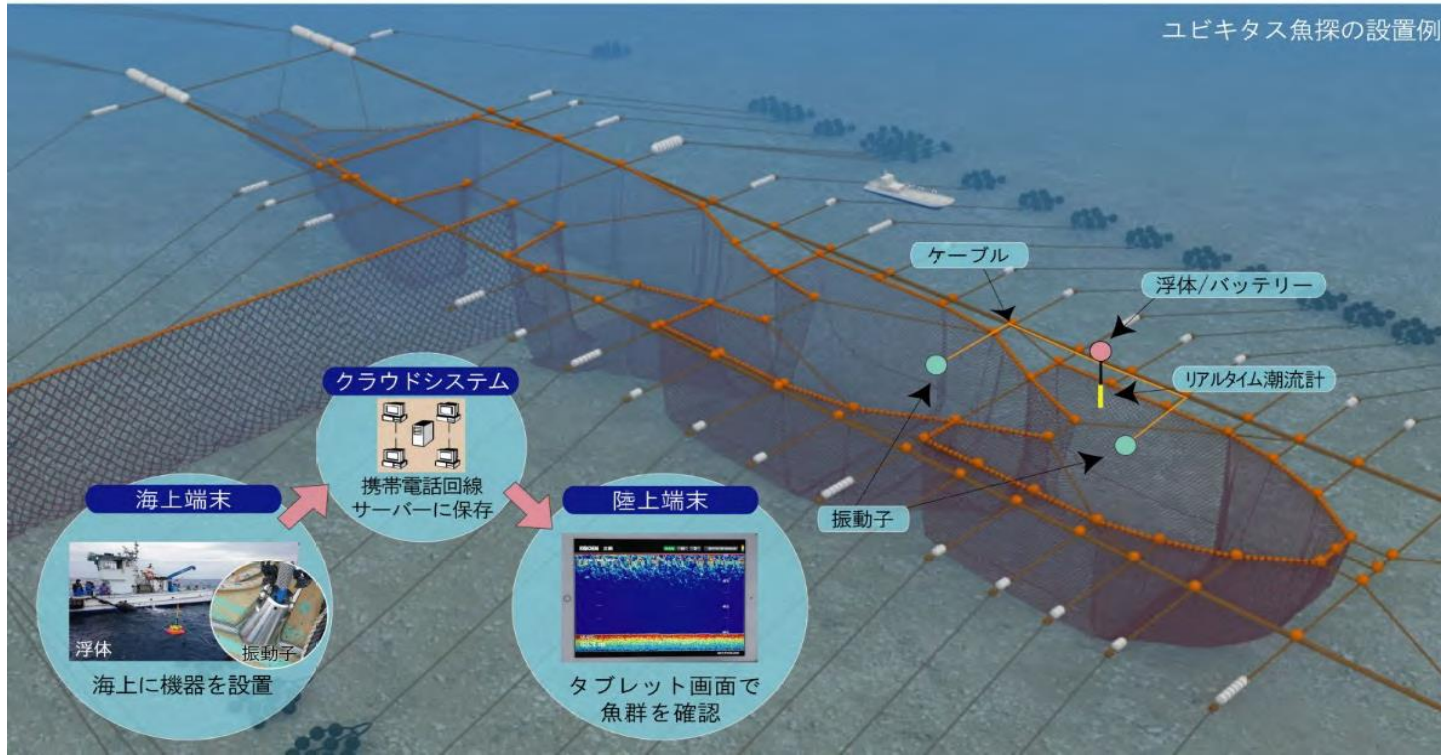


[2段目] 分離割合(%) [3段目]

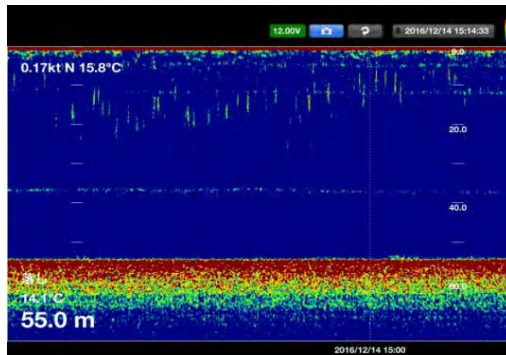


(Movie)

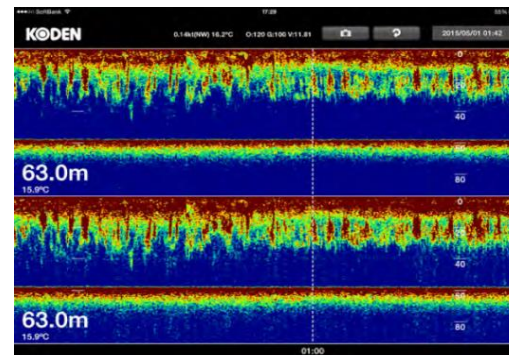
II-10. Fish finders to detect PBF before retrieving net



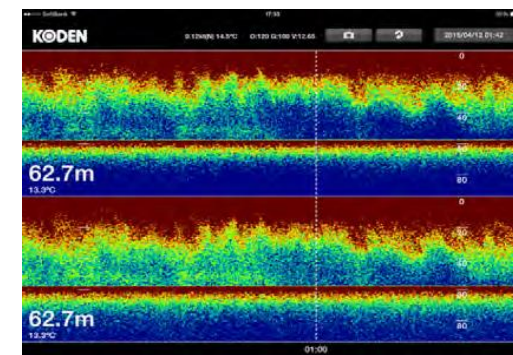
魚探画像の例



PBF



Yellowtail



Sardine

II-11. Large fish in 3rd Management Period

Jan 2017 – Dec 2017 for purse seine fisheries

Jun 2017 – Jul 2018 for coastal fisheries

The large PBF catch was contained within the limit of the 3rd Management Period.

Catch of 3rd management period: 4,815.0t

Catch limit of 3rd management period: 5,132t

Base limit: 4,882t

Transfer from the small fish limit: 250t

II-12. Regulation of Aquaculture

- 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 2017, 177 aquaculture sites were on the registration.
- 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.



III. Management of PBF fisheries in the 4th management period

III-1. Actions to improve management of small fish catch in 4th management period

1. From a voluntary system to a legally binding TAC system that imposes penalties on violators
 - Purse seine fisheries: from 1st January, 2018
 - Coastal fisheries: from 1st July, 2018
2. More accurate and faster reporting systems
3. Better monitoring of landing by prefectures and JFA
4. More coordination among fishermen in the same area about how to use the catch limit
5. Better communication with buyers and wholesalers to strengthen monitoring
6. More meetings with fishermen
7. More reserve to respond to contingencies
8. Change of the management period for coastal fisheries

III-2. Change of management period from 4th management period

Coastal Fisheries:

1st July to 30th June



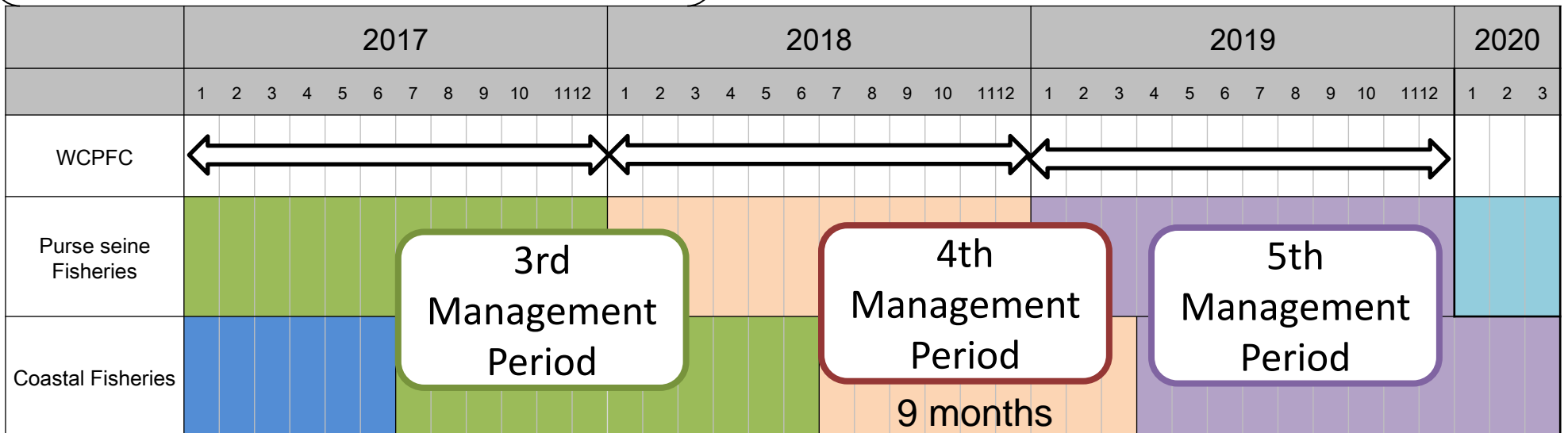
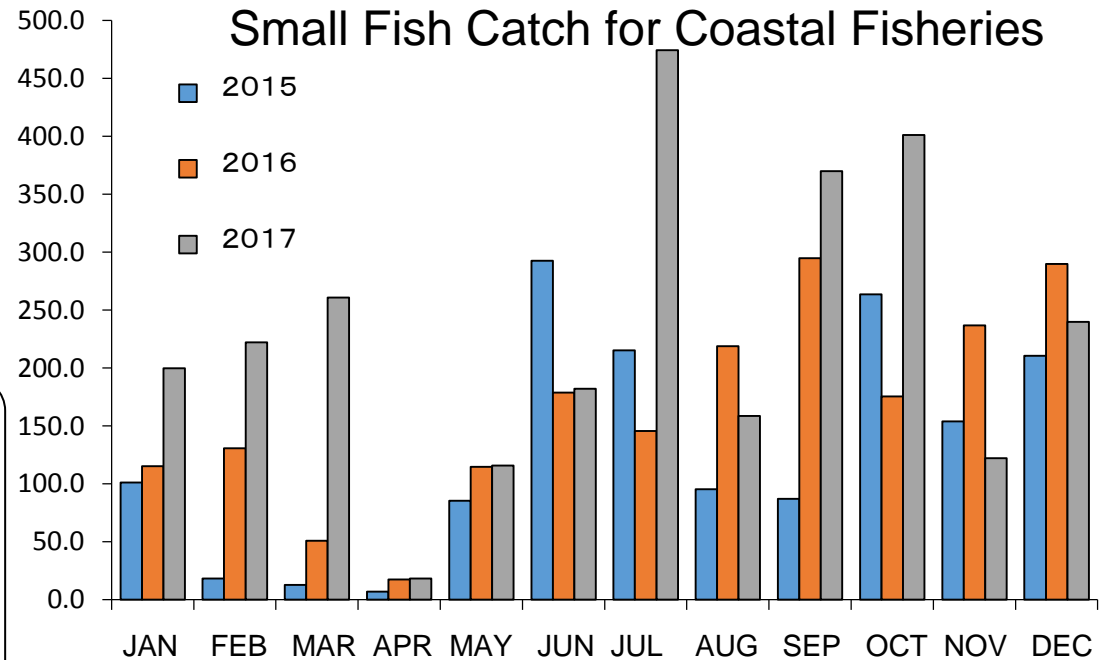
1st April to 31st March

4th period:

from 1st July 2018 to 31st March 2019,

5th period:

from 1st April 2019 to 31st March 2020



III-3. Small fish catch limit in 4th period

1. Abolishment of the common management system for traps
2. For coastal fisheries catch limit was set for each prefecture.
3. Purse seine fisheries 1,500t
 - Other offshore fisheries 82.7t (106 – 23.3 (overage))
 - Coastal fisheries 1,505t (2,007t x 9/12)
 - Reserve by the JFA 167.3t

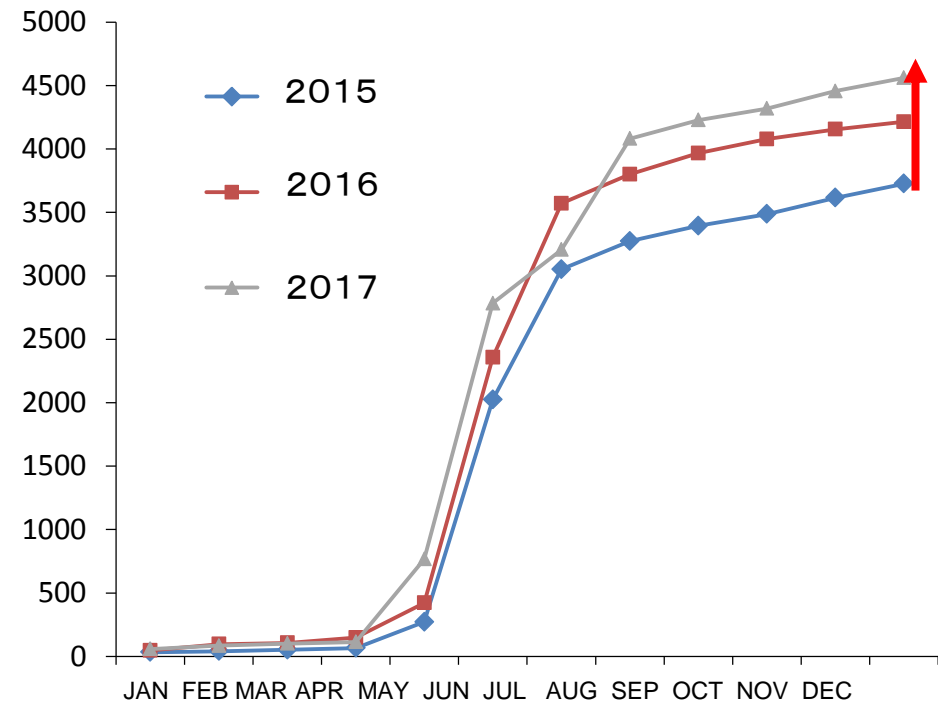
III-4. Recruitment and Age of Fish Caught

Birth Year	Recruitment (x1000)	2014	2015	2016	2017	2018	2019
2014	3,561	Age 0	Age 1	Age 2	Age 3		
2015	7,765		Age 0	Age 1	Age 2	Age 3	
2016	15,988			Age 0	Age 1	Age 2	Age 3
2017	larger than 2016				Age 0	Age 1	Age 2
2018						Age 0	Age 1

*The assumed recruitment in future projection is 8,200 thousand fish

III-5. Large fish management in the 4th management period

1. In the past, catch limit for large fish was managed under an Olympic system, while setting catch limit only for offshore fisheries.
2. An increasing catch trend forced JFA to introduce catch limit for large fish to each prefecture.
3. Large fish catch is now managed by a similar system as that for small fish.



IV. Measures to implement Paragraph 6: Monitoring of Recruitment of Juvenile

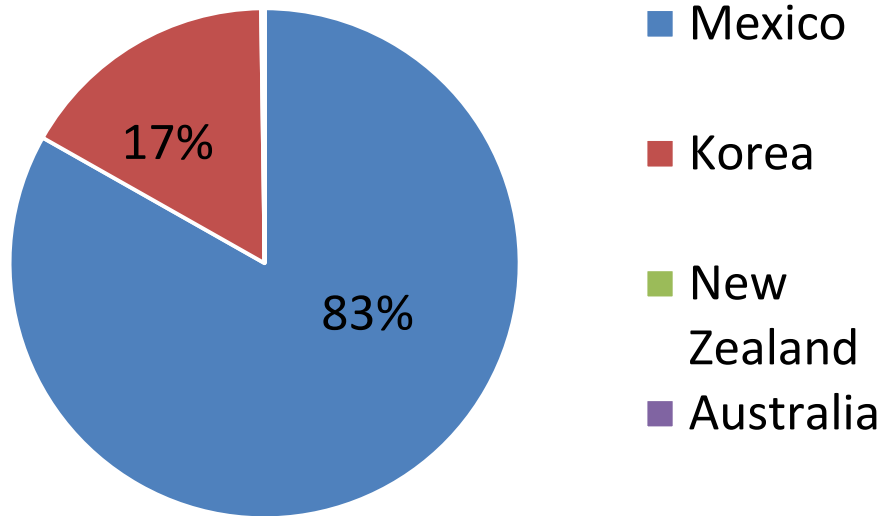
IV-1. Recruitment Monitoring in a Timely Manner

- A monitoring survey using troll fishing boats has been conducted since 2011 in order to monitor recruitment abundance of age-0 fish in a timely manner.
- In 2017, 76 troll boats equipped with data logger and transmitter were monitored in 6 monitoring sites.
- The preliminary results indicated that the recruitment in 2017 is better than those of 2016.

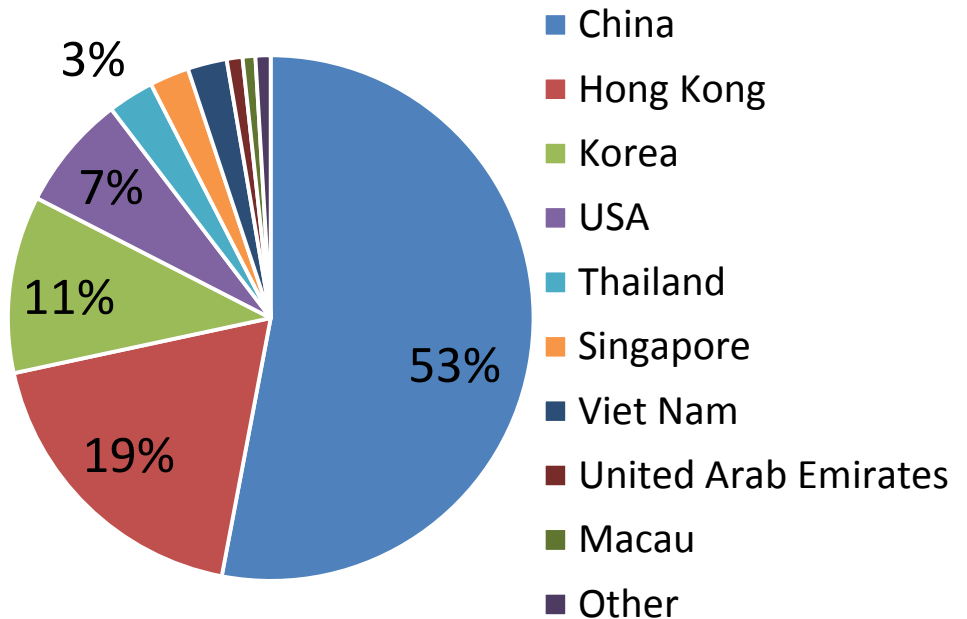
V. Measures to implement Paragraph 7:
Commercial Transaction
&
Report of the monitoring of the PBF trade

V-1. PBF Import & Export in 2017

Import: 4,116 t



Export: 153 t



A data collection system was established to require importers to make mandatory reporting for each import transaction when they import PBF from Korea since 2010, and from Mexico since 2011.

VI. Measures to implement Paragraph 9: Data Collection

VI-1. Collection and Compilation of Catch Data

Purse seine fishery:

- Every time of landing, purse seine associations compile sales slips of designated landing ports and send them to Japan Fisheries Information Service Center (JAFIC).

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 scale fisheries, at least every month. When more than 1 t of PBF is harvested, daily reporting is required.
- Compiled data is submitted to the JAFIC.

The data submitted to the JAFIC is monitored by JFA.

VI-2. Collection and Compilation of aquaculture data

- The 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.
- Fries from wild are harvested by purse seine and troll fisheries. The number of fries put into aquaculture pond from purse seine fishery is monitored by stereo video cameras. Regarding fries from troll fishery, troll fishermen directly sell them to aquaculture farmers, and sometimes brokers involved in the transaction. In any cases, the number of fries to be sold is reported to the fishery cooperative association.