



OCEAN OUTCOMES

## ETP Species Report

絶滅危惧種・絶滅危機種・保護対象種（ETP種）

レポート

Wakayama Longline Albacore Fishery FIP

和歌山延縄ビンナガ漁業改善計画 (FIP)

*July 2018 Draft*

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### ETP species in Fished Areas

#### 漁場のETP種

For the purposes of MSC assessment and certification, ETP (endangered, threatened, and protected) species fall into two broad categories:

- 1) Fish and shellfish species that are recognized by national threatened species legislation, or such species that are listed in binding international agreements such as the Convention on International Trade in Endangered Species (CITES)
- 2) Amphibians, reptiles, birds, and mammals that are listed in the International Union for Conservation of Nature (IUCN) Red List as vulnerable (VU), endangered (EN), or critically endangered (CE).

We identified these species by checking the IUCN Red List for FAO Major Fishing Area 61 (Pacific, Northwest), where the fishery happens, limiting the search scope as follows:

Location: Pacific northwest, Japan, and Palau (Native)

Habitat: Marine Neritic, Marine Oceanic

Conservation status: CR, EN, VU

We checked the 2017 Red List for Marine Species published by Japan's Ministry of the Environment (MOE)<sup>1</sup> for nationally recognized ETP species that may be susceptible to longline gear in the fished areas. In addition, we cross-checked our list against the ETP species list provided in the 2012 pre-assessment conducted by Scientific Certification Services.

The Kaioumaru targets albacore tuna in two areas: (1) waters within Japan's EEZ, generally south of Tokyo and (2) waters around Palau, via a permit agreement. Below is a list of pelagic marine species that may be encountered and impacted by longline vessels in these two areas. We checked geographic ranges of the species using the IUCN Red List website.

Table 1. ETP species that may occur in fished areas. Color categories are as follows: marine mammals = blue, turtles = green, seabirds = yellow, and sharks = purple.

Species	Common names	Red List status	Area (Japan, Palau, or both)
<i>Balaenoptera omurai</i>	Omura's whale,	DD	both
<i>Balaenoptera physalus</i>	Fin whale,	EN	Japan
<i>Berardius bairdii</i>	Baird's beaked whale,	DD	both
<i>Eubalaena japonica</i>	North Pacific right whale,	EN	both
<i>Physeter macrocephalus</i>	Sperm whale,	VU	both
<i>Caretta caretta</i>	Loggerhead turtle,	VU	both
<i>Chelonia mydas</i>	Green turtle,	EN	both
<i>Dermochelys coriacea</i>	Leatherback turtle,	VU	both
<i>Eretmochelys imbricata</i>	Hawksbill turtle,	CR	both
<i>Lepidochelys olivacea</i>	Olive ridley turtle,	VU	both
<i>Phoebastria albatrus</i>	Short-tailed albatross,	VU	Japan

<sup>1</sup> <http://www.env.go.jp/press/010bessi%EF%BC%91%E2%91%A0.pdf>

<i>Alopias pelagicus</i>	Pelagic thresher,	VU	both
<i>Alopias superciliosus</i>	Bigeye thresher shark,	VU	both
<i>Alopias vulpinus</i>	Common thresher shark,	VU	both
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark,	VU	both
<i>Carcharodon carcharias</i>	Great white shark,	VU	both
<i>Cetorhinus maximus</i>	Basking shark,	VU	Japan
<i>Manta alfredi</i>	Reef manta ray,	VU	both
<i>Manta birostris</i>	Giant manta ray,	VU	both
<i>Mobula japonica</i>	Spinetail devil ray,	NT	Japan
<i>Mobula tarapacana</i>	Sicklefin devil ray	VU	Japan
<i>Mobula thurstoni</i>	Bentfin devil ray	NT	Japan
<i>Rhincodon typus</i>	Whale shark,	EN	both
<i>Sphyrna lewini</i>	Scalloped hammerhead,	EN	Japan
<i>Sphyrna mokarran</i>	Great hammerhead,	EN	both
<i>Sphyrna zygaena</i>	Smooth hammerhead,	VU	Japan

Other IUCN vulnerable species that occur in the fished areas and may be impacted by longline gear include shortfin mako shark (*Isurus oxyrinchus*, ), silvertip shark (*Carcharhinus albimarginatus*, ), blue marlin (*Makaira nigricans*, ), ocean sunfish (*Mola mola*, ), bigeye tuna (*Thunnus obesus*, ), and Pacific bluefin tuna (*Thunnus orientalis*, ). However, because these are fish species that are not otherwise recognized as threatened by Japanese legislation or protected under international agreements such as CITES, they are evaluated as MSC Principle 2 species rather than ETP species. The Kaioumaru captain reports occasional interactions with pilot whales, which are likely to be short-finned pilot whales (*Globicephala macrorhynchus*, ). This species is not considered in decline, although abundance data are limited,<sup>2</sup> and hence will not be evaluated as an ETP species here.

<sup>2</sup> <http://www.iucnredlist.org/details/9249/0>

## Interactions between the UoA vessel and ETP species

The fishing vessel within the Unit of Assessment (UoA) is the Kaioumaru, which is captained by Mr. Koji Nishida. The Kaioumaru crew keeps a logbook of operations, which includes information on fishing locations, longline casting times, and catches of tunas and billfishes, including Pacific bluefin tuna and Indo-Pacific blue marlin. They also submit catch report forms to their registered fishery cooperative association (the Hodo Jima branch of the Ooita Fishery Cooperative), which aggregates information and submits it to the prefectural government, which in turn submits data to the Fisheries Agency of Japan (JFA). The Kaioumaru crew provided catch logbook data from October 2013 through December 2017. The logbook sheets included space to record incidental catches of sharks and other species, and none were reported caught during that time.

The vessel does encounter potential ETP species such as sharks and turtles. The Kaioumaru captain also reported interactions with pilot whales, but not other marine mammals. In general, small toothed whales are more likely than larger baleen whales to interact with longlines because pelagic fish (including tuna) are their primary prey. The Kaioumaru crew cuts their fishing lines when marine mammals or sharks accidentally get caught in them. The vessel uses 30 m long tori-poles (also called *tori*, see Fig. 1) to scare seabirds away from the baited fishing lines. In past they used circle hooks that allowed turtles to be released alive, and turtles are released right after they are discovered. However, the Kaioumaru is not currently using circle hooks.

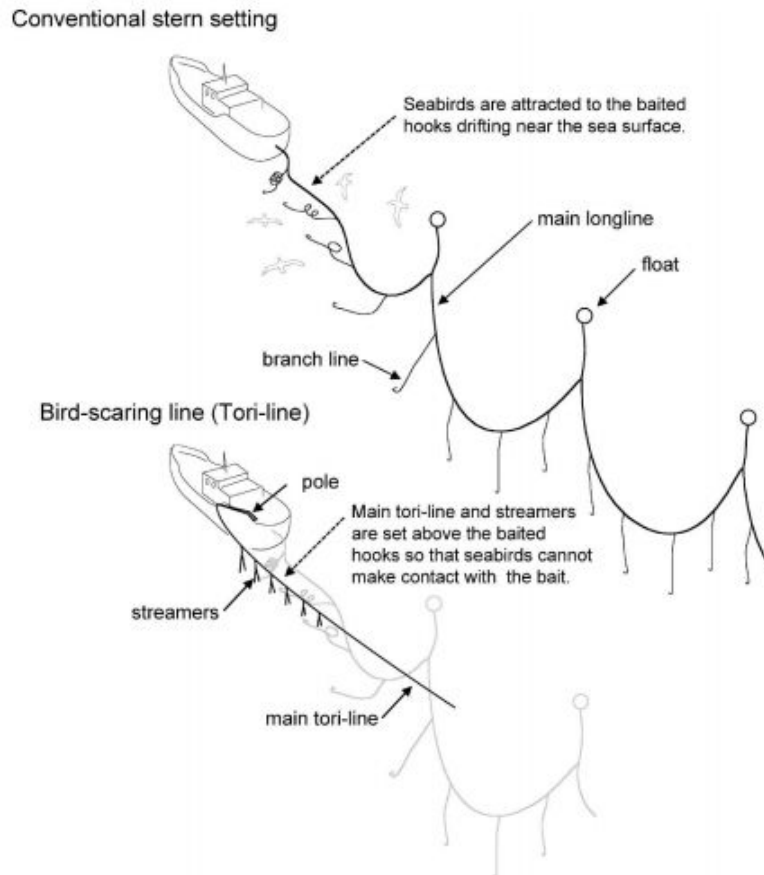


Figure 1. Diagram showing two methods for reducing incidental seabird bycatch in longline fishing: baited hooks used to lure seabirds away from the main longline (upper diagram) and tori-poles used to scare birds away from the main longline (lower diagram).<sup>3</sup>

The fishing vessel is required to have an onboard observer for one month during the year, every two years, with the observer typically being assigned by JFA. It is not clear who issues the observer requirement, whether it is voluntary or a top-down order from the government. The Western and Central Pacific Fisheries Commission (WCPFC) does not specify the observer coverage requirement. JFA has told us that observers are required to record data on catches of both retained and discarded species. Aggregated data are submitted to the relevant regional fisheries management organization (RFMO), but data from individual vessels cannot be shared directly with the public. Observer requirements and management measures for sharks, turtles, and seabirds essentially originate from conservation management measures (CMMs) issued by the WCPFC.

<sup>3</sup> 清田雅史, and 横田耕介. "まぐろ延縄漁業における混獲回避技術." 日本水産学会誌 76.3 (2010): 348-361.

## Review of relevant ETP species regulations

### ETP種に関連する規則の調査

#### Japan legislation

Japan has domestic legislation relating to species conservation and participates in international agreements such as the United Nations Convention on Biological Diversity (1992). At the 2010 Conference of Parties (COP) to the Convention on Biological Biodiversity held in Nagoya, Japan, parties to the convention established the Aichi Biodiversity Targets. The targets are part of 10-year strategic plan and include a goal to eliminate significant fishery impacts on threatened species and vulnerable ecosystems by 2020 (Target 6).<sup>4</sup> At the domestic level, the Act on the Protection of Fishery Resources ( ; 1951) gives MAFF and prefectural governors the ability to close specific fisheries (Article 4) and MAFF the ability to set annual catch limits (Article 13), as deemed necessary for protection of resources. However, we have found few examples of capture limits for threatened species within Japanese legislation.

United Nations Convention on Biological Diversity		
22		10
COP10	Aichi Biodiversity Targets	
		6
2020		

In terms of national legislation, there is a Law for the Conservation of Endangered Species of Wild Fauna and Flora (Law No. 75) that aims to conserve endangered species and contribute to conservation of the natural environment (Ministry of the Environment 2016).

#### Palau legislation

Palau implemented a law on 5 September, 2003 banning retention of sharks (and their fins) and use of wire leaders.<sup>5</sup> The nation then went another step further by banning commercial fishing for sharks within its territorial waters in 2009.

On 28 October, 2015, Palau signed its National Marine Sanctuary into law. The sanctuary, which covers 500,000 square km, will protect 80% of Palau's EEZ. By 2020, all extractive activities will be prohibited in the reserve, while fishing in the remaining 20% of Palau's EEZ will

<sup>4</sup> <https://www.cbd.int/sp/targets/>

<sup>5</sup> Palau OEK. 2003. To amend Chapter 1 of Title 27 of the Palau National Code. Republic of Palau Public Law No. 6-36. Sixth Olbiil Era Kelulau, Fourth Regular Session, October, 2001. Olbiil Era Kelulau, Koror, Republic of Palau.

be restricted to domestic fishing and a few small commercial operations.

## Species-specific measures

Following recommendations from FAO International Plans of Action (IPOAs), Japan has developed National Plans of Action (NPOAs) for sharks and seabirds, which were most recently revised in 2016 and 2009, respectively.<sup>6,7</sup> These NPOAs describe conservation and management measures for these species, including those that have been recommended by RFMOs. The NPOAs are a positive development from a conservation perspective, although implementation and associated reporting (e.g. reporting of shark catches) are essentially voluntary.<sup>8</sup>

### PewTrusts

The NPOA-Sharks specifies the following:

- For longline fisheries, all parts of captured sharks (excluding the head, internal organs and skin) must be possessed on the vessel to the point of landing, unless some shark parts were landed outside of Japan. Incidental catches are also supposed to be reported even if the shark is not possessed on board.
- Catches of oceanic whitetip shark and silky shark are prohibited in the WCPFC managed area.
- Distant-water and offshore tuna longline fishing vessels are prohibited to possess wire as branch lines and leaders, or to use branch lines running directly off the longline floats or drop lines (also known as shark lines).

### PewTrusts

The NPOA-Seabirds states that in the Western and Central Pacific (north of 23 degrees North and south of 30 degrees South), pelagic longline vessels must use at least two types of the following mitigation measures, including at least one out of (i)-(iv):

- (i) Side setting with weighted branch lines using a side streaming device (tori-pole/tori-line). If streaming devices are set on both sides of the vessel, that is considered using two types of mitigation measures.
- (ii) Line setting at night
- (iii) Streaming device (tori-pole/tori-line)
- (iv) Weighted branch lines
- (v) Blue-dyed bait
- (vi) Line shooting machine

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<sup>6</sup> <http://www.fao.org/3/a-bt662e.pdf>

<sup>7</sup> <http://www.fao.org/fishery/docs/DOCUMENT/IPOAS/national/japan/NPOA-seabirds.pdf>

<sup>8</sup>

<http://www.pewtrusts.org/~media/legacy/uploadedfiles/peg/publications/report/the20future20of20sharkspdf.pdf>

- (vii) Underwater line shooting machine
- (viii) Offal disposal management

In a similar vein, to help protect seabirds that breed in Japan's coastal and offshore waters, the NPOA-Seabirds requires use of at least one mitigation measure within 20 miles of Torishima Island during the seabird breeding season (October to May). Allowable mitigation measures overlap with those listed above and include an additional measure, 'use of automatic bait feeding machine or properly defrosted bait.'

### Sea turtles

It is illegal to retain sea turtles, so they are avoided or released as much as possible. Encounters are minimized when longlines are set in deep water, because sea turtles tend to occur in shallower areas. According to WCPFC management measure CMM-2008-03, fishermen need to bring any unconscious sea turtles on board and attempt to resuscitate them before returning them to the water. In addition, vessel owners are required to have dip nets and de-hookers to release turtles as safely as possible. Fishermen may also use larger hooks and bait to reduce turtle capture, because large baits are more difficult for them to eat.

### Marine mammals

Japan has protections in place for some endangered marine mammals such as blue whales, which are supposed to be released alive if accidentally caught or found stranded.<sup>9</sup> However, some domestic harvest or specified mortality levels (e.g. by incidental bycatch) are allowed for other species. For example Baird's beaked whales and sperm whales can be harvested commercially, while fin whales can be harvested for scientific study.<sup>10</sup> There are limits on the numbers, body sizes, and times of year when these whales can be harvested.<sup>11</sup>

## Evaluation

According to general reports and bycatch research relating to longline tuna vessels, we would expect potential ETP species impacts from the Wakayama fishery to involve sharks, turtles and marine mammals. The Kaioumaru crew provided catch logbooks with quantitative data on catches, including records of incidental catches of sharks and other species. There were no reports of sharks, turtles, or marine mammals caught from October 2013 through 2017. Although vessel does not target these species, it does occasionally encounter them. The crew employs some measures, such cutting fishing lines and using specially designed hooks, to reduce accidental catches and release animals alive. The Kaioumaru also uses tori-poles to scare seabirds away from the baited fishing lines, in accordance with the NPOA-Seabirds for Japan.

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<sup>9</sup> Act on the Protection of Fishery Resources, Act No. 313 (1951), MAFF Ordinance No. 44, (1952)

<sup>10</sup> <https://www.env.go.jp/chemi/report/h14-06/57-80.pdf>

<sup>11</sup> <http://extwprlegs1.fao.org/docs/pdf/jap170073.pdf>



Based on the information provided by the Kaioumaru captain, it appears that the vessel has limited negative impacts on ETP species. The crew should continue to apply the measures that they currently use to reduce accidental captures and release entangled animals. They should also continue monitoring and recording of ETP species impacts, ideally including records of entanglements. Although the information obtained is encouraging, we lacked independent observations or observer data to confirm the findings. We are also uncertain whether other tuna longline vessels in this fishery have similar impact levels on ETP species. Continued information collection is therefore important.

# 絶滅危惧種・絶滅危機種・保護対象種（ETP種）レポート

## 和歌山延縄ビンナガ漁業改善計画 (FIP)

July 2018 7

( )

### 漁場のETP種

MSC	ETP	2
1.	CITES	
2.	(IUCN) (CE)	(VU) (EN)
ETP	IUCN	FAO
61		
•	CR	EN VU
•		
•		
ETP	MOE	2017
2012	SCS	ETP
O2		
1		2
		2
		IUCN
1	ETP	

種	通称	レッドリストの分類	地域（日本、パラオ、または両国）
<i>Balaenoptera omurai</i>	Omura's whale,	DD	
<i>Balaenoptera physalus</i>	Fin whale,	EN	
<i>Berardius bairdii</i>	Baird's beaked whale,	DD	
<i>Eubalaena japonica</i>	North Pacific right whale,	EN	
<i>Physeter macrocephalus</i>	Sperm whale,	VU	
<i>Caretta caretta</i>	Loggerhead turtle,	VU	
<i>Chelonia mydas</i>	Green turtle,	EN	
<i>Dermochelys coriacea</i>	Leatherback turtle,	VU	
<i>Eretmochelys imbricata</i>	Hawksbill turtle,	CR	
<i>Lepidochelys olivacea</i>	Olive ridley turtle,	VU	
<i>Phoebastria albatrus</i>	Short-tailed albatross,	VU	
<i>Alopias pelagicus</i>	Pelagic thresher,	VU	
<i>Alopias superciliosus</i>	Bigeye thresher shark,	VU	
<i>Alopias vulpinus</i>	Common thresher shark,	VU	

<i>Carcharhinus longimanus</i>	Oceanic whitetip shark,	VU	
<i>Carcharodon carcharias</i>	Great white shark,	VU	
<i>Cetorhinus maximus</i>	Basking shark,	VU	
<i>Manta alfredi</i>	Reef manta ray,	VU	
<i>Manta birostris</i>	Giant manta ray,	VU	
<i>Mobula japonica</i>	Spinetail devil ray,	NT	
<i>Mobula tarapacana</i>	Sicklefin devil ray	VU	
<i>Mobula thurstoni</i>	Bentfin devil ray	NT	
<i>Rhincodon typus</i>	Whale shark,	EN	
<i>Sphyrna lewini</i>	Scalloped hammerhead,	EN	
<i>Sphyrna mokarran</i>	Great hammerhead,	EN	
<i>Sphyrna zygaena</i>	Smooth hammerhead,	VU	

*oxyrinchus*) (Carcharhinus albimarginatus) IUCN (Isurus  
(Mola mola) (Thunnus obesus) (Makaira nigricans,) (Thunnus orientalis)  
ETP MSC 2 CITES  
( Globicephala  
macrorhynchus ) ETP

# 審査単位漁船とETP種との遭遇/混獲

UoA

JFA

2013 10

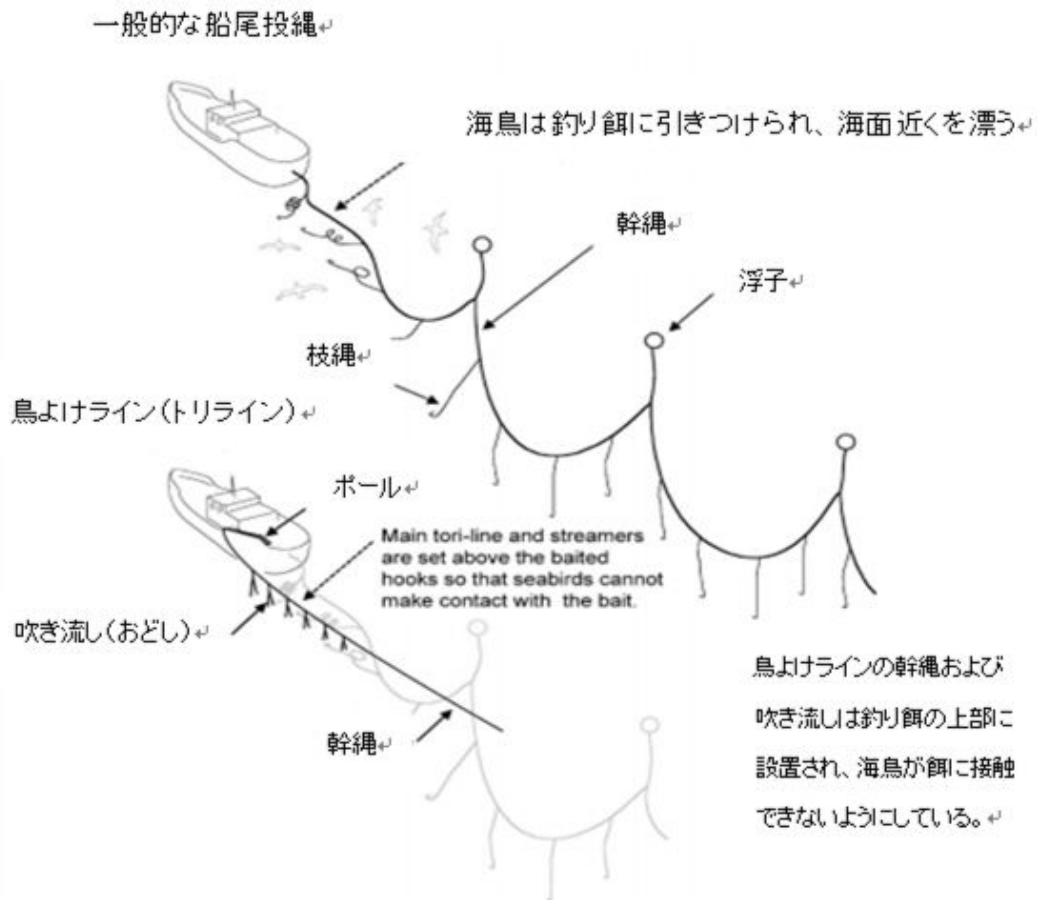
2017

12

ETP

30m

1



1

2

2

1

1

1

O2

RFMO

WCPFC

WCPFC

CMMs

## ETP種に関連する規則の調査

### 日本の法令

United Nations Convention on Biological Diversity

22

10

COP10

Aichi Biodiversity Targets

6

2020

2016

### パラオの法令

2003 9 5

2009

2015 10 28

National Marine Sanctuary

80

500,000

20

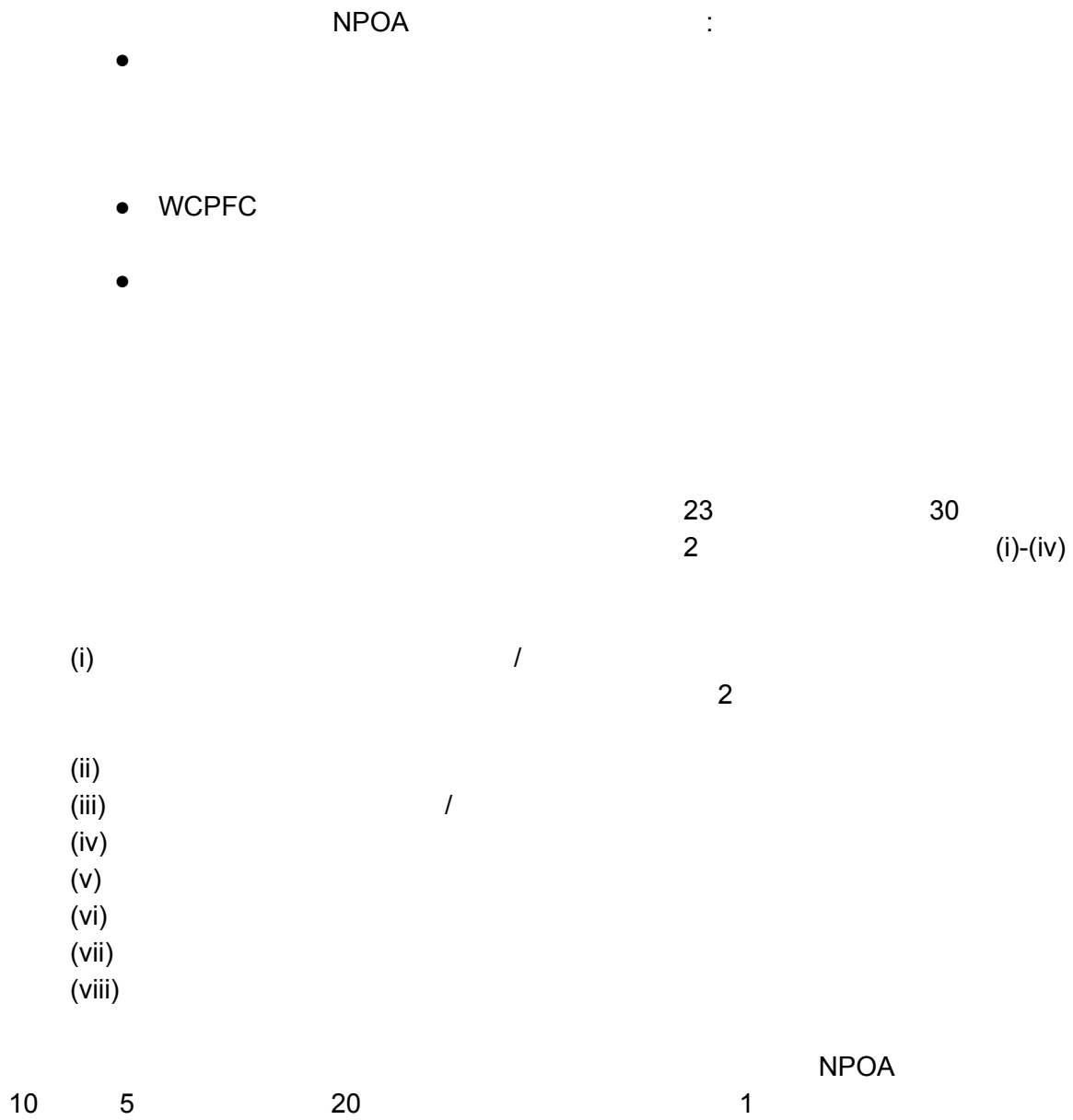
2020

# 種ごとの方策

FAO  
NPOAs

IPOAs

2016 2009



WCPFC

CMM-2008-03

## 評価

ETP

2013 10 2017

NPOA

ETP

ETP

3

ETP