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SC-10-06

# National Report of Japan (2025)

Delegation of Japan

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<b>Distribution</b>	Public <input checked="" type="checkbox"/> Restricted <sup>1</sup> <input type="checkbox"/> Closed session document <sup>2</sup> <input type="checkbox"/>
<b>Abstract</b>	
<p>This document describes following seven items requested by the National Report Template, i.e., 1. Fisheries, 2. Catch, effort and CPUE, 3. Fisheries data collection and research activities, 4. VME thresholds, 5. Biological sampling and length/age composition of catches, 6. Data verification mechanisms, and 7. Observer program. In the SIOFA convention area (CA), Japan has been operating two different types of fisheries discontinuously for 48 years (1977-2024), i.e., trawl fisheries targeting splendid alfonsino and bottom longline fisheries targeting Patagonian toothfish. Based on available information, seven items are described for trawl and bottom longline fisheries respectively, highlighting recent 5 years (2020-2024). Information through 2023 is compiled based on logbooks, and information for 2024 is tentatively compiled from scientific observer data and may be revised next year.</p>	

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**Recommendations**

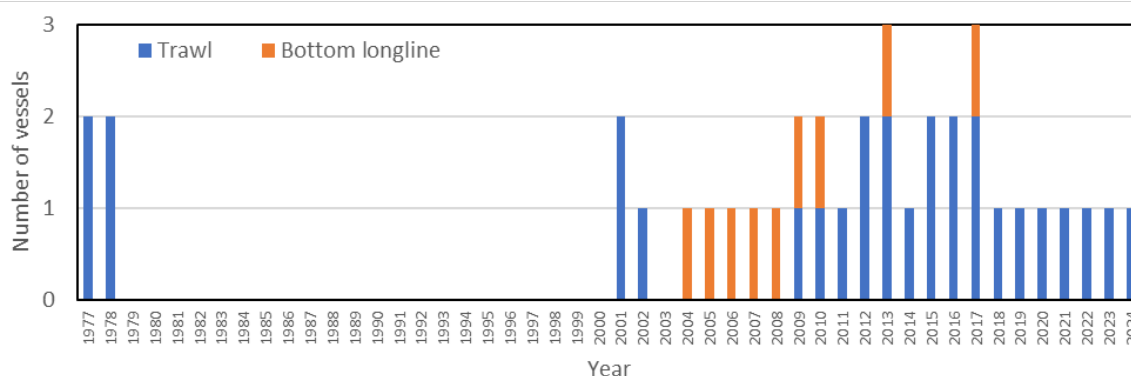
It is recommended that the Science Committee:

- Notes the National Report provided by Japan.
- Notes that Japan has complied with the annual reporting requirements of the SIOFA Scientific Committee.

# National Report of Japan (2025)

## 1. DESCRIPTION OF FISHERIES

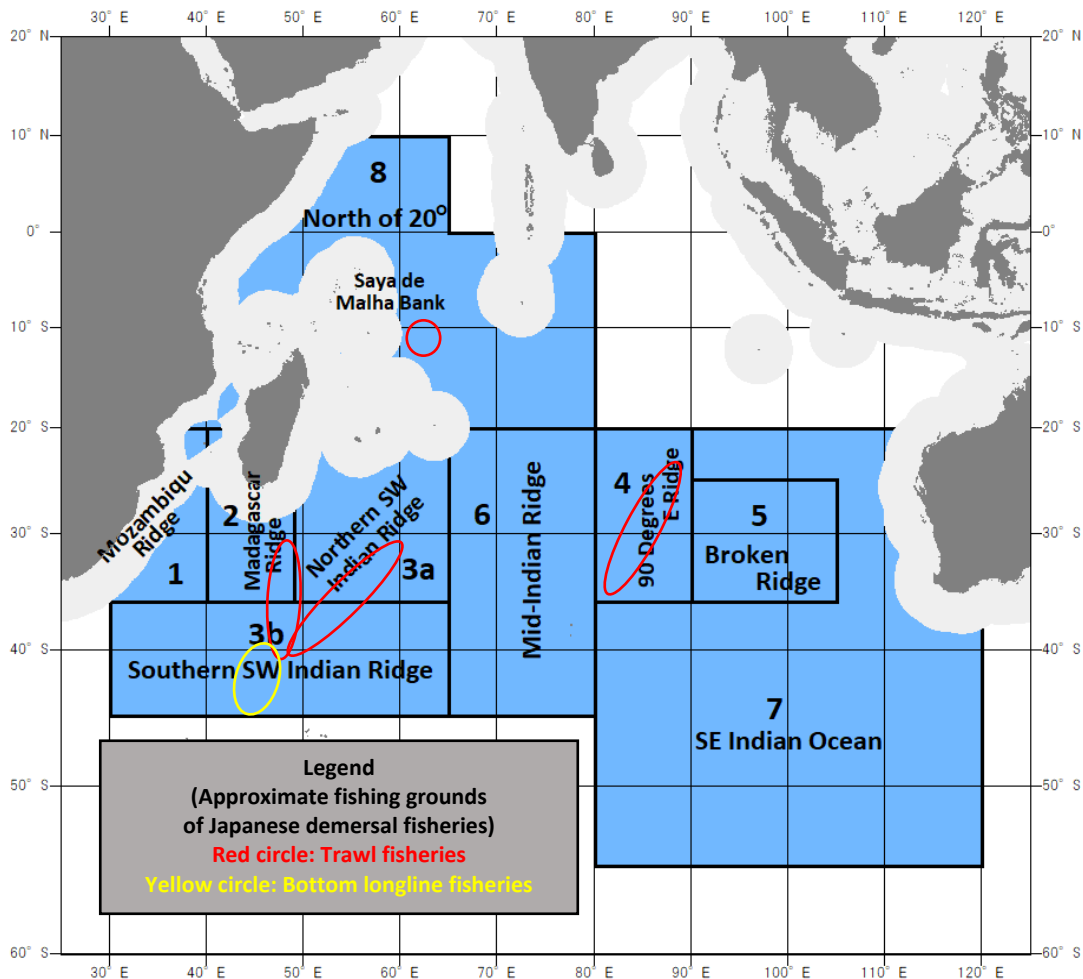
In the SIOFA convention area (CA), two different fishery types of Japanese vessels, i.e., trawl fisheries and bottom longline fisheries, have operated discontinuously for 48 years (1977-2024) (Fig. 1). Figure 1 shows the number of vessels (trawl and bottom longline fisheries) operated in the SIOFA CA during 1977-2024 (3 vessels maximum). There were no operations for 24 years (1979-2000 and 2003). Table 1 shows the number of vessels and their total tonnages (trawl and bottom longline fisheries) that operated in the SIOFA CA in recent 5 years (2020-2024). Figure 2 shows major fishing grounds of Japanese trawl and bottom longline fisheries.



**Fig. 1:** Number of Japanese vessels (trawl and bottom longline fisheries) operated in the SIOFA convention area (1977-2024) including exploratory fishing.

**Table 1:** Fleet composition over the recent five years (number of vessels by gear type and size and how this has changed by year).

Year	Vessels that actively fished	
	Trawl	Bottom longline
2020	1 (1,204 tonnes)	0
2021	1 (1,204 tonnes)	0
2022	1 (1,204 tonnes)	0
2023	1 (1,204 tonnes)	0
2024	1 (1,204 tonnes)	0



**Fig.2:** SIOFA Statistical areas defined in the National Report Guideline (SIOFA, 2021) and approximate locations of Japanese trawl and bottom longline fisheries.

(1) Trawl fisheries

There were 20 years of trawl fisheries operations (including exploratory fishing) in three separate periods, i.e., 1977-1978, 2001-2002 and 2009-2024. The total catch of trawl fisheries (1977-2024) ranges 353-4,416 tonnes (1,616 tonnes in average) by 1-2 vessels. There are 4 major Japanese trawl fishing grounds in the SIOFA area, i.e., Area 2 (Madagascar Ridge), Area 3 (Southwestern Indian Ridge), Area 4 (90° E Ridge) and Saya de Malha Bank in Area 8 (North of 20°) (red-circled areas in Map 1). Tables 2 and 3 show the annual fishing effort and catches by sub-area of trawl fishery for recent 5 years, respectively. From the third cruise in 2024, Japanese trawler conducted with a mixture of midwater trawl and bottom trawl operation within a cruise.

**Table 2:** Summary table of trawl effort (hours trawled).

Year	Sub-areas for reporting catch and effort data								
	1	2	3.a	3.b	4	5	6	7	8
2020			205	482					
2021			170	419	159				
2022		9	234	545	136				
2023		73	122	291					
2024		114	102	243	41				

(Note 1) Blanks: no operations

(Note 2) Data sources: logbook (2020-2023) and scientific observer data (2024)

(Note 3) Trawl effort is defined as the time from “start fishing” to “end fishing” for midwater trawl fishery specified in CMM 02 (2023) Annex A and B.

**Table 3:** Summary table of trawl catches (tonnes).

Year	Sub-areas for reporting catch and effort data								
	1	2	3.a	3.b	4	5	6	7	8
2020			513	836					
2021			352	906	177				
2022		10	512	1,445	131				
2023		434	296	736					
2024		638	232	936	61				

(Note 1) Blanks: no operations

(Note 2) Data sources: logbook (2020-2023) and scientific observer data (2024)

(Note 3) Catch includes retained and discarded catch

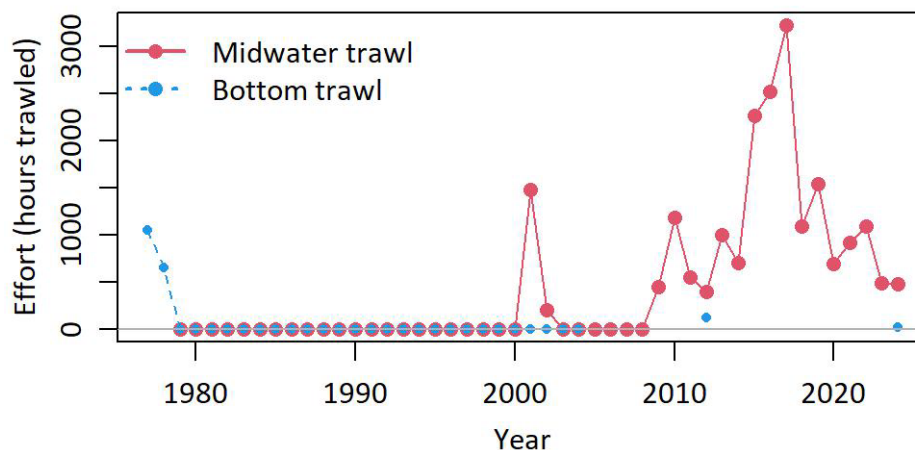
## (2) Bottom longline fisheries

As for bottom longline fisheries, there were 9 years of operations in 2004-2010, 2013 and 2017 by the same single vessel. The total catch ranges 5-87 tonnes (26 tonnes in average). This vessel mainly operates in the CCAMLR CA and occasionally operates in the SIOFA Area 3 (Southwestern Indian Ridge) adjacent to the northern part of the CCAMLR area (yellow-circled area in Map 1). Summary tables of the annual fishing effort and catches by sub-area of bottom longline fishery are not shown here since there were no operations in recent 5 years.

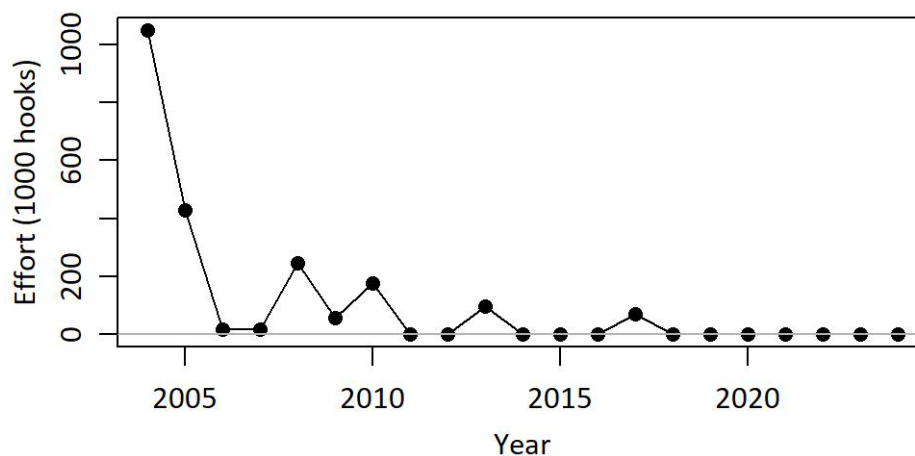
## 2. CATCH, EFFORT AND CPUE SUMMARIES

### (1) Fishing efforts

Figures 3 and 4 show the annual trends in nominal fishing effort for trawl and bottom longline fisheries operated in the SIOFA convention area during 1977-2024 and 2004-2024, respectively.



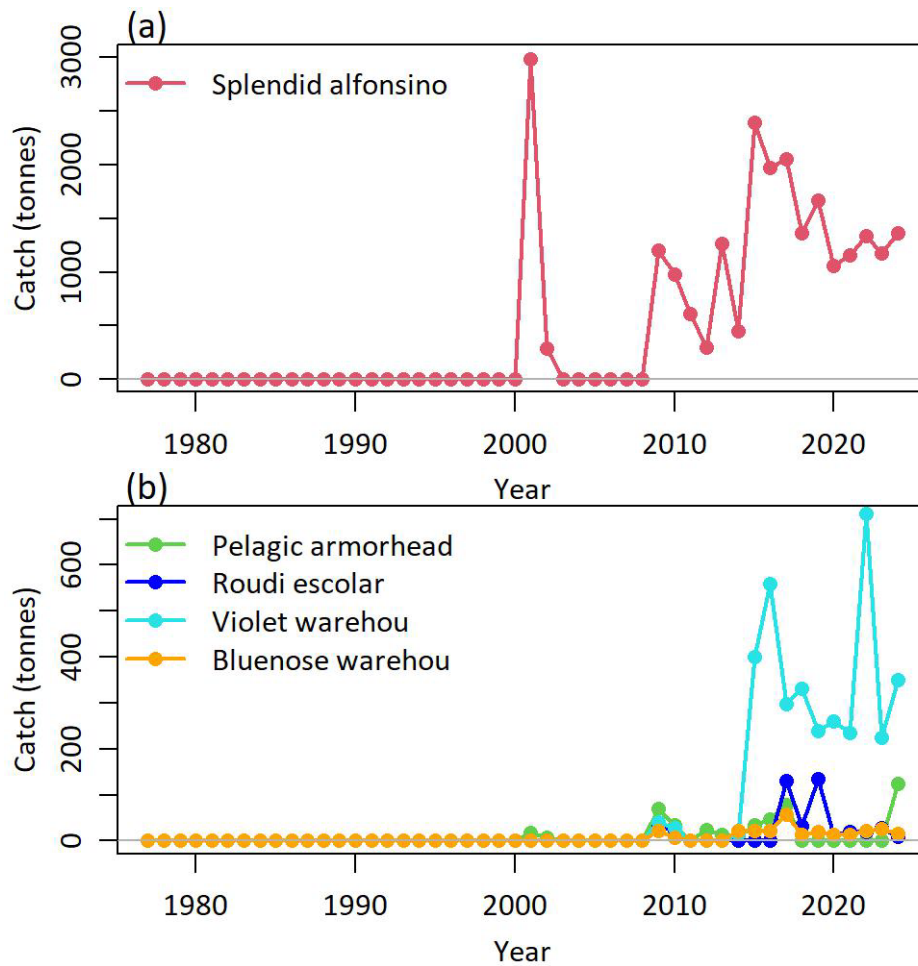
**Fig. 3:** Annual trend in fishing effort (hours trawled) for trawl fishery during 1977-2024 (Data sources: logbook (1977-2023) and scientific observer data (2024)).



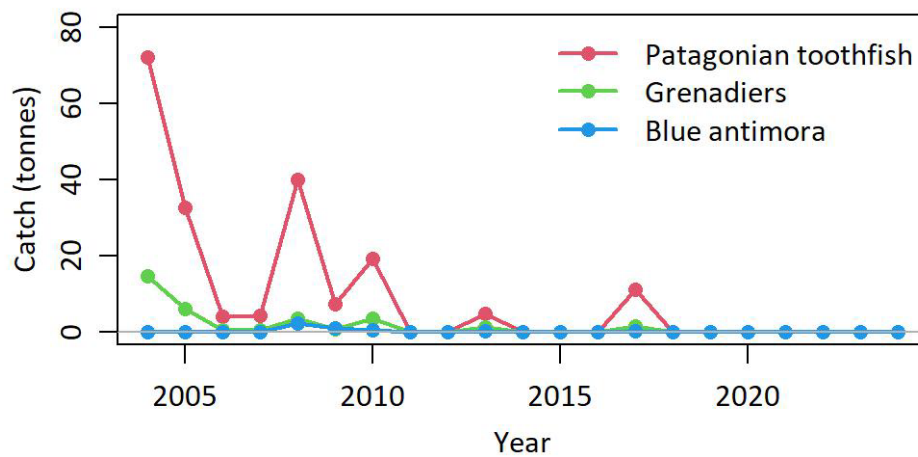
**Fig. 4:** Annual trend in fishing effort (1,000 hooks) for bottom longline fishery during 2004-2024 (Data sources: logbook).

### (2) Catch

Figures 5 and 6 show the annual trends in catch (including retained and discarded catch) of the main target and bycatch species for trawl and bottom longline fisheries, respectively. Table 4 shows the annual catch (retained and discarded) of main target and bycatch species for trawl fishery in recent 5 years. Table of the annual catches for bottom longline fishery is not shown here since there were no operations in recent 5 years.



**Fig. 5:** Annual trends in catch (tonnes) of (a) main target and (b) bycatch species for trawl fishery during 1977-2024 (Data sources: logbook (1977-2023) and scientific observer data (2024)).



**Fig. 6:** Annual trends in catch (tonnes) of main target and bycatch species for bottom longline fishery during 2004-2024 (Data sources: logbook).

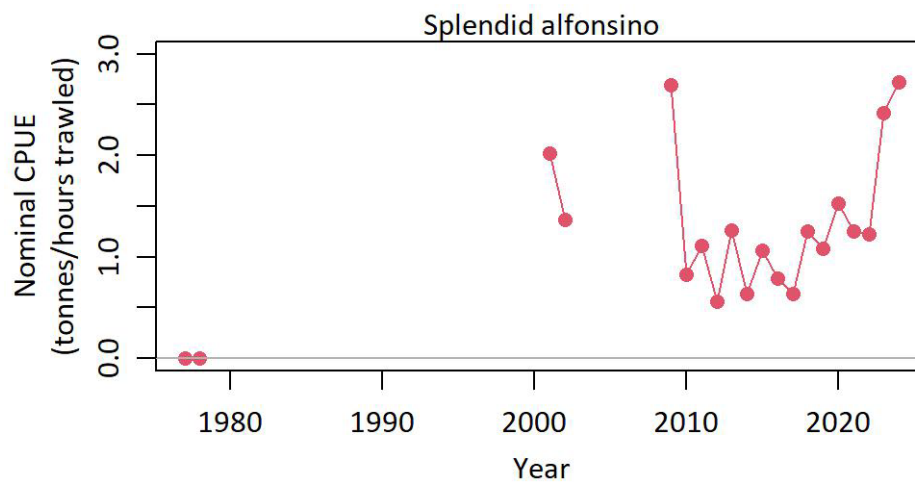
**Table 4:** Catch (tonnes) by species for main target, bycatch, associated and depended species for trawl fishery (R: retained, D: discarded).

Year	Splendid alfonso (BYS)		Pelagic armorhead (EDR)		Roudi escolar (PRP)		Violet warehou (SEY)		Bluenose warehou (BWA)		Others		Total	
	R	D	R	D	R	D	R	D	R	D	R	D	R	D
2020	1,056	2	0	0	14	0	261	0	12	0	2	4	1,344	6
2021	1,152	2	0	0	20	0	235	0	13	0	9	5	1,430	6
2022	1,330	4	0	0	20	0	712	0	22	0	1	10	2,085	14
2023	1,174	6	0	0	27	0	224	0	25	0	1	9	1,451	14
2024	1,353	7	125	0	9	0	350	0	14	0	1	20	1,850	27

(Note) Data sources: logbook (2020-2023) and scientific observer data (2024)

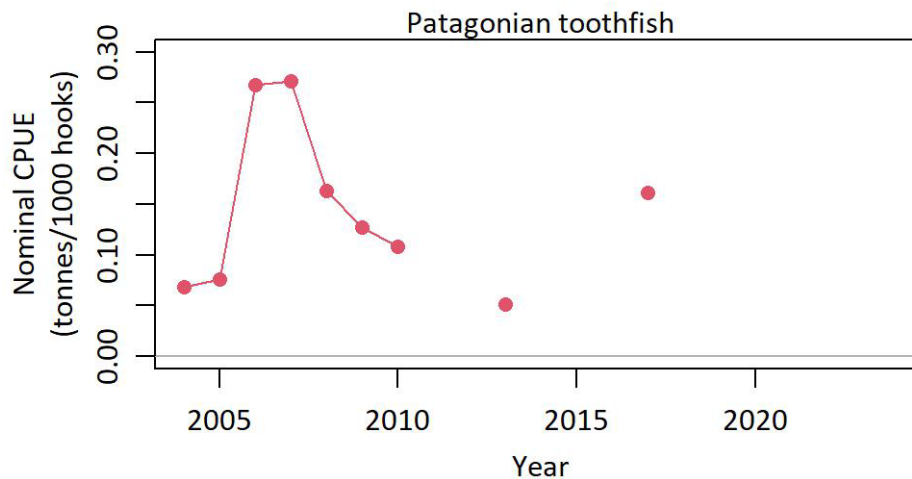
### (3) CPUE

Figures 7 and 8 show the annual trends in nominal CPUE of the main species over the history of the trawl and bottom longline fisheries, respectively.



**Fig. 7:** Annual trend in nominal CPUE of main species (Splendid alfonso) for trawl fishery during 1977-2024 (Data sources: logbook (1977-2023) and scientific observer data (2024)).





**Fig. 8:** Annual trend in nominal CPUE of main species (Patagonian toothfish) for bottom longline fishery during 2004-2024 (Data sources: logbook).

### 3. FISHERIES DATA COLLECTION AND RESEARCH ACTIVITIES

#### (1) Fishery data collection (logbook)

Commercial fishing vessels of both trawl and bottom longline fisheries collect information in each operation i.e., dates, locations, depth, catch/effort data and other relevant data. They are recorded in logbooks and submitted to Fisheries Agency of Japan.

#### (2) Scientific observer data collection

The SIOFA scientific observer program started in January 2017 and both trawl and bottom longline fishing vessels collect scientific information according to Annex B of the CMM, which specifies data collection for scientific observers (currently CMM 02(2023)).

#### (3) Research activities

Exploratory trawl fishing vessels operated for total of 4 years in the past (1977-1978, 2009 and 2012) in the SIOFA CA, and they collected both fisheries and scientific data such as fishing effort, catch/bycatch amount by species and biological information (size and other data).

#### (4) Resolution of the data

Table 5 shows tempo-spatial resolutions of the data for trawl fishery in recent 5 years. Table of the data resolution for bottom longline fishery is not shown here since there were no operations in recent 5 years.

**Table 5:** Details on the scales and resolutions of the fishery data collection for trawl fishery.

Year	Trawl fishery data collection items							
	Tow/set (Individual or some aggregation)		Time scale (Set-tow hauling time, daily, etc.)		Spatial scale (Tow/set exact position or grid, please provide grid resolution)		Species details (Any aggregation or species grouping)	
	Commercial (logbook)	Observer	Commercial (logbook)	Observer	Commercial (logbook)	Observer	Commercial (logbook)	Observer
2020	Set by set	Set by set	Set-tow hauling time (minute)	Set-tow hauling time (minute)	Tow/set (second)	Tow/set (second)	*	*
2021	Set by set	Set by set	Set-tow hauling time (minute)	Set-tow hauling time (minute)	Tow/set (second)	Tow/set (second)	*	*
2022	Set by set	Set by set	Set-tow hauling time (minute)	Set-tow hauling time (minute)	Tow/set (second)	Tow/set (second)	*	*
2023	Set by set	Set by set	Set-tow hauling time (minute)	Set-tow hauling time (minute)	Tow/set (second)	Tow/set (second)	*	*
2024	Set by set	Set by set	Set-tow hauling time (minute)	Set-tow hauling time (minute)	Tow/set (second)	Tow/set (second)	*	*

(Note) \* means that non-reported species are aggregated as “Other species” in both logbook & the observer data.

## 4. VME THRESHOLDS (FOR BOTTOM FISHING ACTIVITY ONLY)

### 4.1 Progress of the VME thresholds values

#### (1) 2017 or before

Japanese trawl fisheries operated in the mid-water, and no threshold levels nor move-on-rule had been established.

#### (2) 2018

Japanese mid-water trawlers had operated under voluntary measures using temporarily established VME encounter threshold (50kg for corals) and the move-on rule (1 nautical miles) in accordance with Article 11, CMM 2018/01 (currently CMM 01(2023)). When the observer recognizes that the trawl operations touch seafloor and bycatches of VME indicator species are caught, then the observer records such information. As for the bottom longline fisheries, Japan temporarily applied those used in CCAMLR.

## (3) 2019 and after

From the middle of 2019 fishing season, Japanese fishing vessels have applied Article 12, CMM 01(2023), which establishes thresholds for bycatches of VME indicator species and move-on-rule in the encounter protocol, i.e., for trawl fisheries, 60 kg of live corals and 300 kg of sponges and for bottom longline fisheries, 10 or more VME-indicator units. If by-catch amount of VME indicator species reach the threshold level, Japanese fishing vessels will follow the protocols stipulated in Articles 12 to 19, CMM 01(2023), i.e. fishing vessels move away 2 and 1 nm for trawl and longline fisheries respectively then report it to the Secretariat.

## (4) Summary

Table 6 shows summary of the progress on VME species encounter threshold values and the move-on-rules applied in Japan in 2024 for trawl and bottom longline fisheries.

**Table 6:** Threshold levels for encounters with VMEs and move-on protocols.

Gear/fishery	Thresholds	Move-on protocols description
Trawl	60 kg of live corals and/or 300 kg of sponges	Move 2 miles
Bottom longline	10 or more VME-indicator units	Move 1 mile

## 4.2 VME species bycatch

Table 7 shows a summary of VME Taxa (wet) weight (kg), exceeding thresholds in trawl fishery in recent 5 years. Table 8 shows VME taxa bycatch quantities caught by trawl fishery in 2024. Tables 7 and 8 for bottom longline fishery are not shown here since there were no operations in recent 5 years. From the third cruise in 2024, Japanese trawler conducted with a mixture of midwater trawl and bottom trawl operation within a cruise. It is noted that, the fishing ground where Japanese trawler has been operating is a sharp seamount, so the tow time is short, about 5 minutes, and the ground rope is not contacted strongly to the seafloor. It is presumed that the VME indicator species bycatch is low because the fishing gear is not towed to explore the fishing ground, but rather follow a similar course of previous operations.

**Table 7:** Summary VME Taxa (wet) weight (kg), operations exceeding thresholds and effort for trawl fishery.

Year	VME taxa	Unit	Sub-areas for reporting catch and effort data								
			1	2	3.a	3.b	4	5	6	7	8
2020	All VME indicators	Weight (kg)			0	0					
		No. of sets/hauls			0	0					
		Effort (hours trawled)			200	487					
2021	All VME indicators	Weight (kg)			0	0	0				
		No. of sets/hauls			0	0	0				
		Effort (hours trawled)			164	425	159				
2022	All VME indicators	Weight (kg)		0	0	0	0				
		No. of sets/hauls		0	0	0	0				
		Effort (hours trawled)		9	230	549	136				
2023	All VME indicators	Weight (kg)		0	0	0					
		No. of sets/hauls		0	0	0					
		Effort (hours trawled)		73	109	304					
2024	All VME indicators	Weight (kg)		0.1	0	0	0				
		No. of sets/hauls		1	0	0	0				
		Effort (hours trawled, Table 2)		114	102	243	41				

(Note 1) Data sources: Scientific observer data

(Note 2) Blank cells mean no operations.

(Note 3) Trawl effort is defined as the time from “start fishing” to “end fishing” for midwater trawl fishery of specified in CMM 02 (2023) Annex B. Effort by subarea during 2020-2023 is not consistent with Table 2, which is based on logbooks.

**Table 8:** VME taxa bycatch quantities recorded by trawl fishery in 2024

Year	FAO code	Scientific name	Bycatch weight (kg)
2024	GGW	<i>Gorgonians</i>	0.1

(Note) Data sources: Scientific observer data

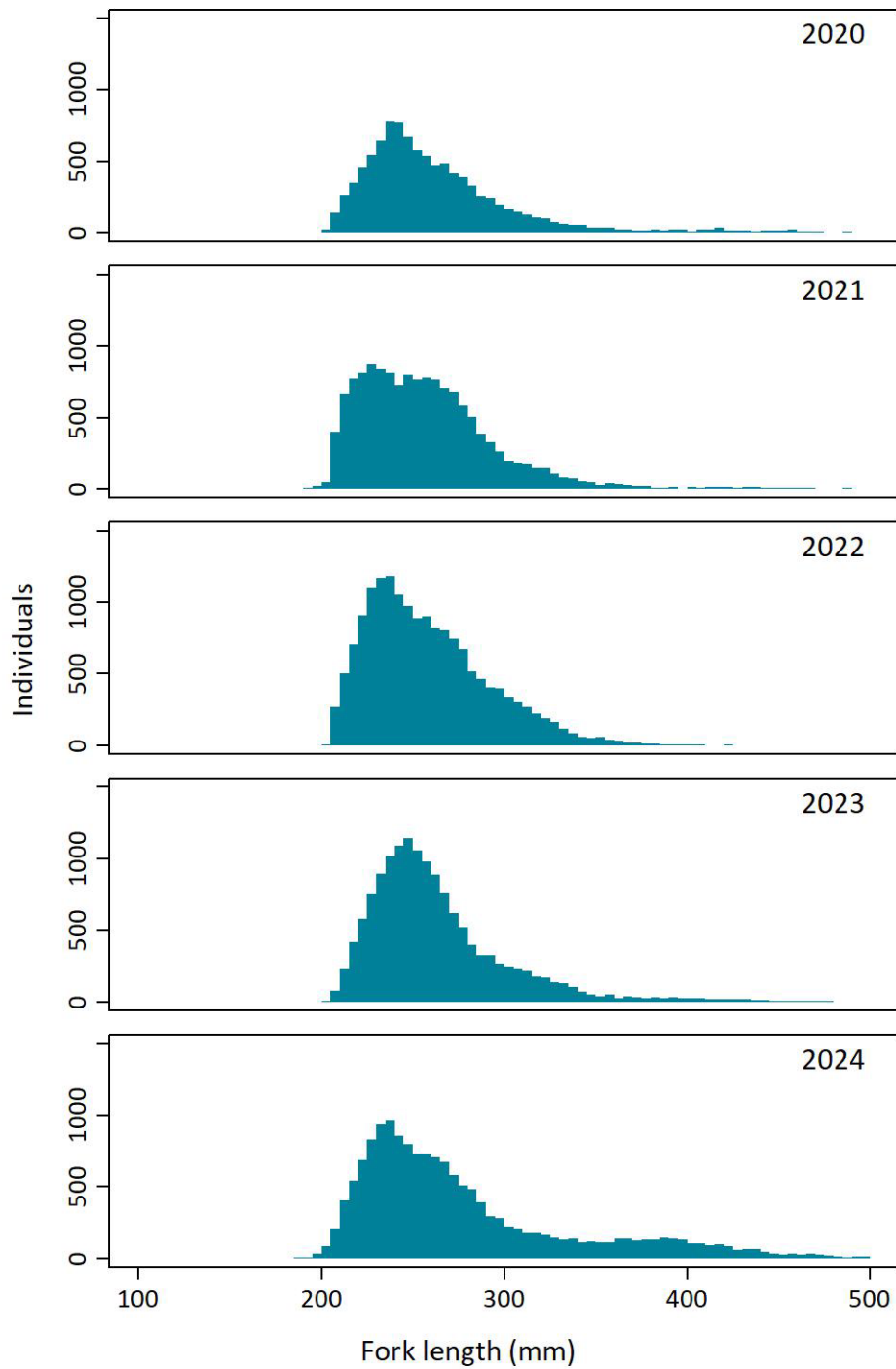
## 5. BIOLOGICAL SAMPLING AND LENGTH/AGE COMPOSITION OF CATCHES

### (1) Trawl fisheries

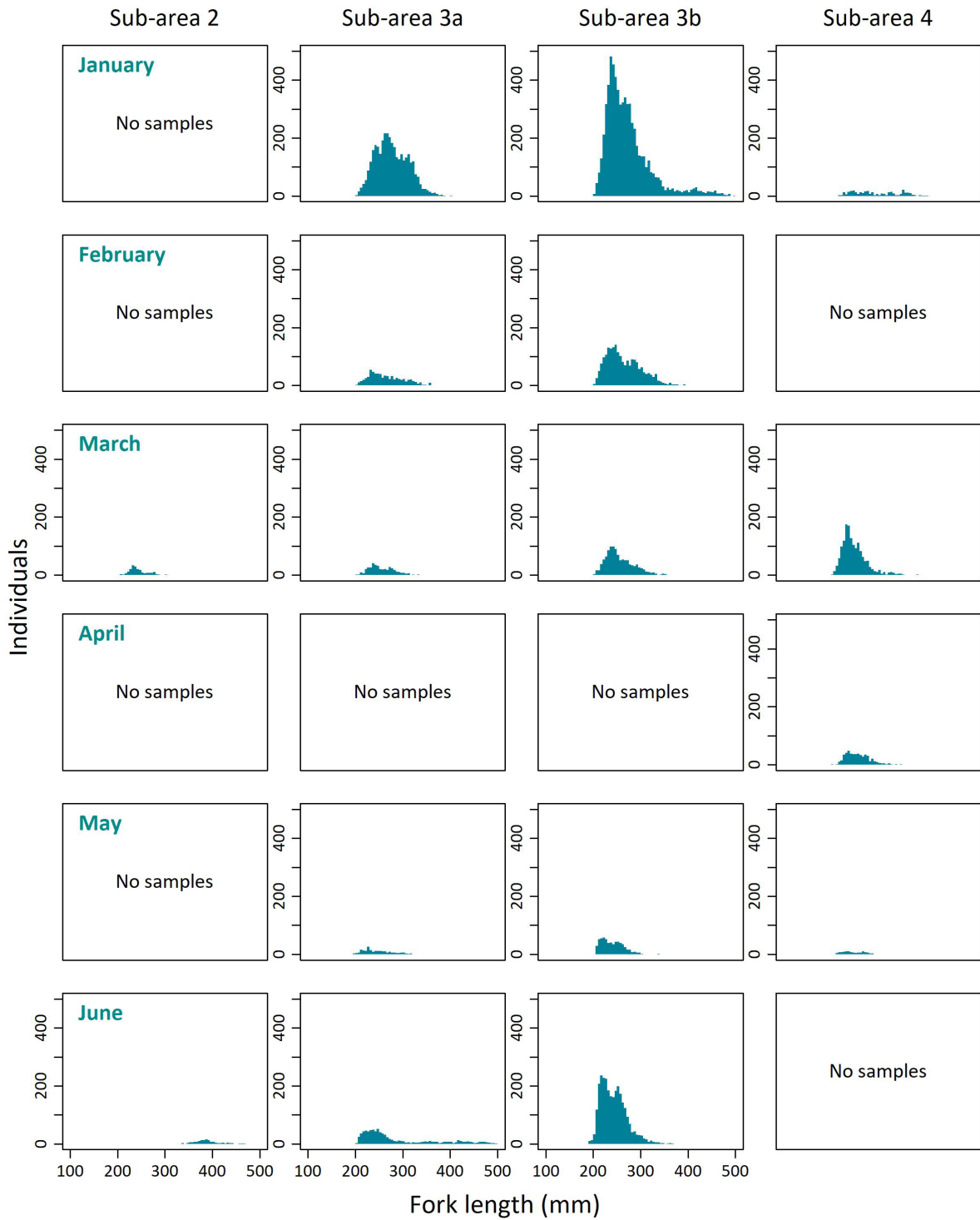
Biological samples and length/age composition of catches were collected under exploratory fishing operations. In addition, biological and size data of main target species (i.e., splendid alfonsino and pelagic armorhead) have been collected since January 2017 under the newly launched observer program.

Figures 9 and 10 show length frequency distribution of splendid alfonsino (*Beryx splendens*) collected during 2020-2024. In the current scientific observer program, the fork length (FL) of 100 alfonsino individuals is recorded on board. For armorhead, FL and body height of 30 individuals are measured on board. These measurements are conducted for one haul a day. Splendid alfonsino and pelagic armorhead are randomly sampled from one haul.

In addition, liver, gonad, otolith, scale, muscle tissue and stomach contents for both species are collected for 30 individuals per month. Aging of alfonsino and pelagic armorhead otolith has been conducted in Fisheries Resources Institute (FRI) (re-named from National Research Institute of Far Seas Fisheries (NRIFSF) in 2020) in Japan Fisheries Research and Education Agency (FRA). The preliminary results of otolith aging for splendid alfonsino were presented in the SIOFA SERA-WG2 (2020) after a certain progress has been accomplished.



**Fig. 9:** Annual length frequency distribution of splendid alfonsino (*Beryx splendens*) observed by scientific observers during 2020-2024 trawl fishery.



**Fig. 10:** Monthly and subarea-specific length frequency distribution of splendid alfonsino (*Beryx splendens*) observed by scientific observers during 2020-2024 trawl fishery (January to June).

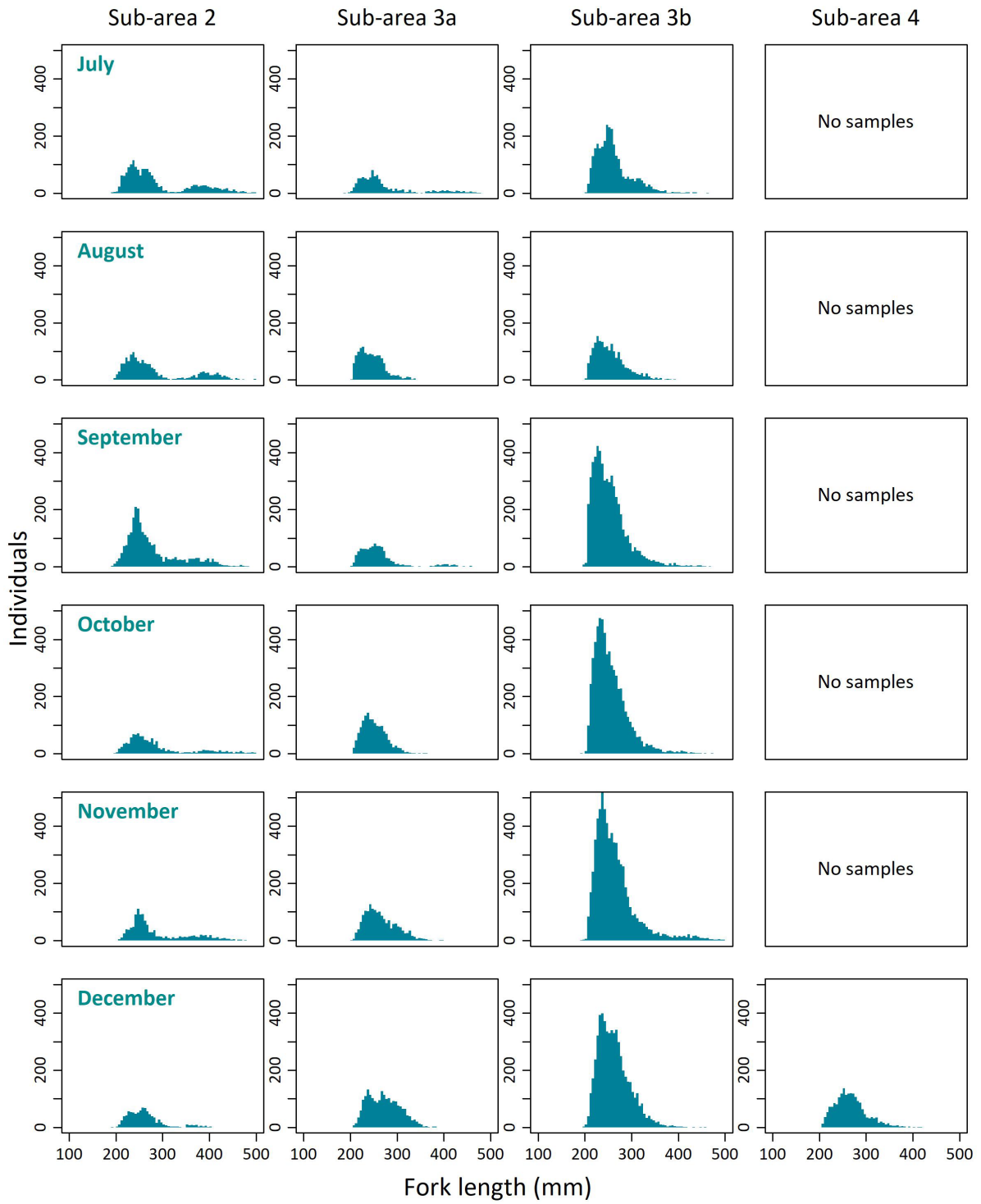


Fig. 10: continued (July to December)



## (2) Longline fisheries

One bottom longline fishing vessel has been operating since 2004. The scientific observer on board has collected various biological information (size and other data) using the CCAMLR observer data forms since 2013. For every longline operation, catch and effort data are recorded and reported by following CCAMLR Conservation Measures. All individual fish are identified to the species level where possible, including those lost at the sea surface.

For all individuals of Patagonian toothfish caught, species and sex are identified then body length (mm) and weight (kg) are measured and recorded. The length frequency distribution of Patagonian toothfish collected in 2013 and 2017 is shown in the previous national report of Japan (SC-07-13-Annual-National-Report-JAPAN-rev1). In addition, gonad stage is determined by visual inspection on board. If possible, all retained toothfish up to 40 per haul are sampled to measure their gonad weights. Physical and hooking conditions of fish are checked. Toothfish otolith is sampled up to 30 fish for each haul.

## 6. DESCRIPTION OF DATA VERIFICATION MECHANISMS

### (1) Trawl fisheries data

Commercial fisheries data (logbook) are verified by Japan Overseas Fishing Association (JOFA) and Fishery Agency of Japan. Fisheries Agency of Japan also verifies locations of vessels through Vessel Monitoring System (VMS). Scientific observer data started in 2017 are verified by Fisheries Agency of Japan and FRI in FRA. Exploratory fishing data are verified by Japan Marine Fishery Resources Research Centre (JAMARC), whose current name is Marine Fisheries Research and Development Centre (also JAMARC) in FRA.

### (2) Bottom longline fisheries data

Both fisheries logbook and observer data are verified by Fishery Agency of Japan and FRI. Fisheries Agency of Japan also verifies locations of vessels through VMS.

## 7. SUMMARY OF OBSERVER AND PORT SAMPLING PROGRAMS

### (1) Trawl fisheries

In accordance with Article 30, CMM 2016/01 (SIOFA interim observer program), Japan started the observer program from January 2017 (for details, see National Report of Japan in 2017, SIOFA-2017-SC02-04 (05)). This program is based on the Japanese scientific observer program for bottom trawl fisheries in North Pacific Fisheries Commission (NPFC) CA. The scientific observers have collected items listed in Annex B of the CMM (currently CMM 02 (2023)), which specifies data collection for catch by species, effort, biological data, bycatch

information by species including VME indicator species, non-target species (sharks, sea-bird, marine mammals, reptiles and other species of concern) and other requested information. The scientific observers are deployed to all operating vessels, and they cover all activities in fishing operations (100% coverage) since 2017.

The scientific observer trainings have been held annually since 2016. The scientific observer scheme and manuals are updated based on the feedbacks from the scientific observers through the debriefing taking place during the scientific observer trainings.

There are no port sampling programs in Japan.

### (2) Bottom longline fisheries

One bottom longline vessel operating primarily in the CCAMLR area, occasionally moves up to the SIOFA CA. Hence, the same scientific observer collects scientific data in both CCAMLR and SIOFA CAs.

The scientific observer in 2017 collected items listed in Annex B, CMM2017/02 (currently CMM 02 (2023)), i.e., catch by species, effort, biological data, bycatch information by species including VME indicator species, non-target species (sea birds, marine mammals, reptiles and other species of concern) and other requested information. The scientific observer covered all activities of fishing operations (100% haul coverage rate) with the CCAMLR data collection forms in 2017, because it is not efficient to use different data collection forms in both CCAMLR and SIOFA CAs.

There are no port sampling programs.

### (3) Summary

Table 9 is a summary of the scientific observer program coverages for trawl fishery in recent 5 years (2020-2024). Table 10 is a summary of the bycatch information for trawl fishery in 2024. Table 11 is a summary of numbers of fish sampled in trawl fishery in recent 5 years. Note that there were no bottom longline operations since 2018.

**Table 9:** Scientific observer program design and coverage summary table.

Year	Trips coverage (%)	Total No. of sets/hauls	No. of sets/hauls covered	Within set/haul coverage (%)	Incidental bycatch (bird, mammal) observation coverage (% set/haul)
2020	100	200	200	100	100
2021	100	254	254	100	100
2022	100	318	318	100	100
2023	100	343	343	100	100
2024	100	590	590	100	100

**Table 10:** Reporting of observed bycatch in 2024.

bycatch	Trawl fishery
seabirds	0
mammals	0
sharks	1
All VME indicators (kg)	0.1
other	1

**Table 11:** Summary numbers of fish sampled per species and year.

Species (FAO code)	Years				
	2020	2021	2022	2023	2024
BYS	L/F: 9897 BS: 119	L/F: 14102 BS: 210	L/F: 16509 BS: 268	L/F: 14410 BS: 270	L/F: 15501 BS: -

(Note 1) L/F: total number of fish measured length frequency, BS: number of individual biological sampling  
 (Note 2) Biological sampling for 2024 has not been completed. The results will be shared in the annual data submission

## 8. RELEVANT SOCIAL AND ECONOMIC INFORMATION (OPTIONAL)

No information is prepared for this time.