





THAILAND NATIONAL REPORT TO THE SCIENTIFIC COMMITTEE OF THE INDIAN OCEAN TUNA COMMISSION 2023

Authors

Department of Fisheries, Ministry of Agriculture and Cooperatives, Thailand

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Thailand National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2023

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INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 15/02 (and	YES
other data related CMMs as noted below), final	
scientific data for the previous year were provided	30/06/2023
to the IOTC Secretariat by 30 June of the current	
year, for all fleets other than longline [e.g., for a	
National Report submitted to the IOTC Secretariat	
in 2023, final data for the 2022 calendar year must	
be provided to the Secretariat by 30 June 2023)	
In accordance with IOTC Resolution 15/02,	NO
provisional longline data for the previous year	
was provided to the IOTC Secretariat by 30 June	
of the current year [e.g., for a National Report	
submitted to the IOTC Secretariat in 2023,	
preliminary data for the 2022 calendar year were	
provided to the IOTC Secretariat by 30 June	
2023).	
REMINDER: Final longline data for the previous	
year are due to the IOTC Secretariat by 30 Dec of	
the current year [e.g., for a National Report	
submitted to the IOTC Secretariat in 2023, final	
data for the 2022 calendar year must be provided	
to the Secretariat by 30 December 2023).	
If no, please indicate the reason(s) and intended activ	
No Thai longline vessels operated in IOTC area of c	ompetence since 2016 to present.





Executive Summary

Thailand has advanced for implementing a comprehensive system to combat IUU fishing. It has taken a reform of legal framework and implementing regulations, the fisheries management limiting the fishing license issuance in compliance with the quantity of aquatic animals, the fleet management putting control over fishing vessels of all sizes and types, the monitoring, control and surveillance through port-in and port-out control since 2015 to present. In addition, for Thai overseas vessels, they are required to install vessel monitoring system (VMS), electronic reporting system (ERS) and electronic monitoring system (EM). Traceability system for catches from Thai-flagged vessel has been developed including introduction of fishing logbook and landing declaration.

In 2022, Thailand had no fishing vessel operated in the high sea of IOTC area of competence. Thailand had only domestic purse seiners in the Andaman Sea, the number of licensed fishing vessel was 219 vessels. In 2022, kawakawa is the main composition accounted for 31.82% of the total catch of tuna and tuna-like species, followed by skipjack tuna 22.25%, longtail tuna 20.86%, frigate tuna 18.93%, bullet tuna 4.60%, Indo-Pacific king mackerel 0.70%, narrow-barred Spanish mackerel 0.62%, Indo-Pacific sailfish 0.19% and yellowfin tuna 0.03%.

The recreational fishery for tuna and tuna-like species is rarely found in the Andaman Sea of Thailand. The measures for ecosystem and bycatch protection have been implemented, e.g., National Plan of Action for Conservation and Management of Sharks of Thailand, covering 5 years period of 2020 - 2024 and the national regulations following the FAO Guideline to Reduce Sea Turtle Mortality in Fishing Operation. Moreover, Thailand is in process to review the NPOA – Seabirds by the National Committee on Fisheries Policy and it will be implemented in the near future. There were no national research programs on non-target species, e.g., sharks and marine turtles, in 2022 because most of the specified stock described in the report are rarely found in Thai waters.





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1. BACKGROUND/GENERAL FISHERY INFORMATION

Since 2015, Thailand has implemented the monitoring, control and surveillance system to manage fishing activities at port and at sea through port-in/out control and vessel monitoring system, which applied to domestic and overseas fishing vessels. The Port State Measure, catch documentation via fishing logbook and landing declaration, and catch traceability system are also in place in fisheries management regime.

Thai fisheries comprised of artisanal and commercial fisheries. Artisanal vessels use low-efficient fishing gears e.g., gillnets, traps, handline, etc., targeting high-valued invertebrates and coastal fishes. They are usually operated in coastal area around 3 nautical miles from shoreline. On the other hand, commercial vessels use high-efficient fishing gears e.g., purse seines and trawls, targeting small pelagic fishes and demersal faunas. Thai commercial vessels are limited to operate within Thai EEZ except the vessels which registered as overseas fishing vessels. Purse seine is the main fishing gear use to catch neritic tunas and other IOTC species in the Andaman Sea, located at eastern Indian Ocean.

In 2022, all purse seiners legally fished within Thai EEZ. They are considered as commercial vessels based on the Thai fisheries law and regulated under MCS scheme. However, they are classified as small purse seiners based on the IOTC classification. Purse seiners mainly target small pelagic fishes like scads, sardines, and mackerels using fish finders, e.g., echo sounder and sonar, to search for free swimming fish schools and/or fish luring objects, commonly made from coconut leaves. Neritic tunas are also caught by purse seine. No drifting fish aggregating devices (DFAD) are used in Thai fisheries.

2. FLEET STRUCTURE

2.1 Domestic Fishing Fleet

The number of purse seine vessels operating in the Andaman Sea of Thailand has decreased in the last 5 years. In 2022, the number of purse seine vessels operating in the Andaman Sea was 219 as presented in Table 1.

Vaar	Size of vessel (GT)						
Year	Total	10.00 - 19.99	20.00 - 59.99	60.00 - 149.99	≥150.00		
2018	238	6	67	146	19		
2019	236	6	66	146	18		
2020	228	1	60	147	20		
2021	227	1	59	147	20		
2022	219	2	54	144	19		

Table 1: Number of Thai domestic purse seine vessels operating in the IOTC area of competence by size in 2018 – 2022

2.2 Overseas Fishing Fleet

Thailand had only one (1) purse seine vessel operated in the IOTC area of competence during December 2016 – February 2017, however it was delisted from IOTC Record of Authorised Vessels List in April 2018. Currently, Thailand has three (3) authorized vessels to operate in the IOTC area of competence; all of them are research vessels. The number of overseas fishing fleet is presented in Table 2.

Table 2: Number of authorized Thai vessels operating in the IOTC area of competence, by gear type and size in 2018 - 2022

	Commercial vessels		Researc	ch vessels		
Year	Number of	Size of the	Number of	Size of the	Remark	
I cai	commercial	vessels (GT)	Research	vessels (GT)	Kennark	
	vessels	vessels (GT)	Vessels	vessels (G1)		
2018	1	199.78	3	1,178 - 1,424	In 2018 - present, Thailand	
2019	0	0	3	1,178 - 1,424	has not any fishing vessels	
2020	0	0	3	1,178 - 1,424	operated outside Thai	
2021	0	0	3	1,178 - 1,424	waters that target tuna and	
2022	0	0	3	1,178 - 1,424	tuna - like species in the	
					IOTC area of competence.	

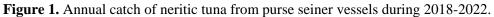


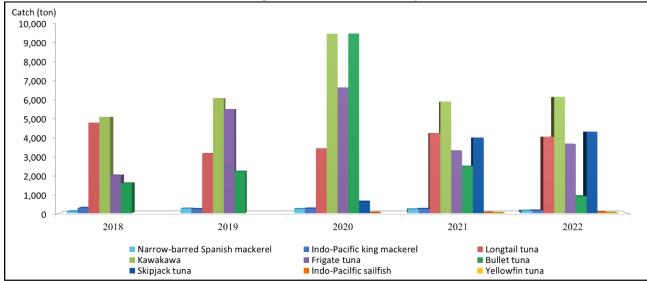


3. CATCH AND EFFORT (BY SPECIES AND FISHERY)

In 2022, Thailand had 219 purse seine vessels operating in the Andaman Sea of Thailand. The catch comprised the neritic tunas, skipjack tuna and yellowfin tuna with the total catch of 19,377 tons. (Table 3). The percentage of catch included kawakawa 31.82% of the total catch of tuna and tuna-like species, skipjack tuna 22.25%, longtail tuna 20.86%, frigate tuna 18.93%, bullet tuna 4.60%, Indo-Pacific king mackerel 0.70%, narrow-barred Spanish mackerel 0.62%, Indo-Pacific sailfish 0.19%, and yellowfin tuna 0.03%. Catch decreased from 2020 due to the decreasing of number of fishing vessel and fisher stopped operation due to the increasing of fuel price.

			Catch by species (Tons)								
Year	Effort (Day)	Total catch	Narrow- barred	Indo- Pacific	Longtail tuna	Kawakawa	Frigate tuna	Bullet tuna	Skipjack tuna	Indo- Pacific	Yellowfin tuna
	(,) /		Spanish mackerel	king mackerel						sailfish	
2018	35,411	13,864	95	272	4,798	5,104	2,010	1,585	-	-	-
2019	36,303	17,450	235	212	3,162	6,101	5,523	2,217	-	-	-
2020	39,901	30,176	213	238	3,415	9,509	6,664	9,521	605	11	-
2021	38,238	20,365	194	217	4,234	5,916	3,304	2,485	3,997	17	1
2022	42,461	19,377	120	136	4,041	6,166	3,667	892	4,312	37	6









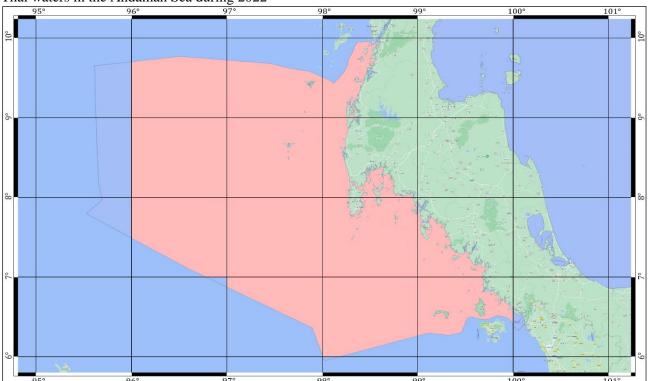
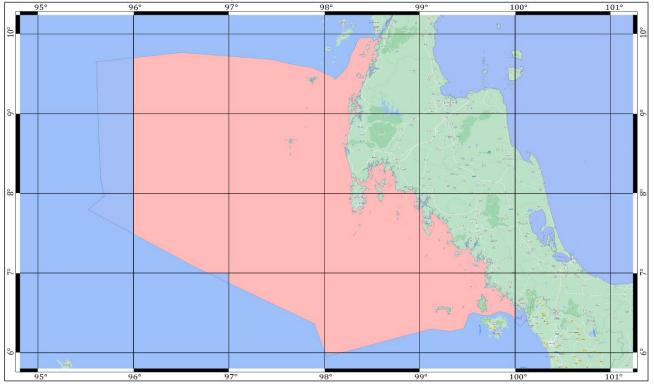


Figure 2. Map of the distribution of <u>catch and fishing effort</u>, by domestic purse seine vessels operated in the Thai waters in the Andaman Sea during 2022

Figure 3. Map of the distribution of <u>catch and fishing effort</u>, by domestic purse seine vessels operated in the Thai waters in the Andaman Sea during 2018-2022



Note Fishing map of catch and effort distribution are combined into a single map. Thai purse seine fishery targets multispecies, not specific ones. Therefore, the data cannot be categorized by individual species.





4. **RECREATIONAL FISHERY**

Recreational fishery for tuna and tuna - like species is not popular in Thailand, and has not regulated under fisheries regime. The sport fishing in the Andaman Sea is rarely found.

5. ECOSYSTEM AND BYCATCH ISSUES

5.1 Sharks

Shark landing catch is found very low percentage in purse seine fishery. The common species found are spot-tail shark (*Carcharhinus sorrah*), and small demersal sharks in Family Hemiscylliidae such as brown banned bamboo shark (*Chiloscyllium punctatum*) in case that vessels fished in shallow areas.

As sharks are imperative species in marine ecosystem, the concern of shark declining is reflected in country's legislation. For example, based on the current measures under the Royal Ordinance on Fisheries B.E. 2558 (2015) and its amendment B.E. 2560 (2017), whale shark and guitarfish are prohibited to catch which is corresponding with the National Plan of Action on Sharks.

5.1.1. NPOA sharks

The first National Plan of Action for Conservation and Management of Sharks of Thailand (NPOA Sharks) was implemented in 2020, covering 5 years period of 2020 - 2024. This NPOA has implemented by the Department of Fisheries in collaboration with related government agencies and academic institutes. The plan focuses on;

1) Study and develop a database on biological information of sharks, ecology, fisheries, and utilization of sharks in Thai waters

2) Systematically and regularly assess status and threats on shark resources

3) Develop knowledge and enhance capability related to shark management for relevant officers

4) Establish shark conservation and management measures and trade regulation on sharks in commensurate with international laws

5) Establish and strengthen stakeholder network engaging in shark resource management

The current NPOA Sharks is subjected to be reviewed in 2024 and the second NPOA Sharks will be implemented in the following year.

5.1.2. Sharks finning regulation

Thailand currently follows international obligations on shark conservations and always complied with management measures of the RFMOs as its member i.e., the Code of Conduct for Responsible Fisheries (CCRF), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Biological Diversity (CBD), and the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and NPOA Sharks.

The shark finning regulation is reflected in the Notification of the Department of Fisheries on Requirement and Regulations of Fishing Vessels Operating Outside Thai Waters in IOTC Area of Competence (IOTC) B.E. 2566 (2023) on Clause 13, which regulate on retain of all parts of the shark excepting head, guts and skins, to the point of first landing. For fresh preservation, whole body of the shark shall be preserved until the vessel arrives the point of first landing. Or by using frozen method, vessels are prohibited to store shark fins more than 5% of the total weight of sharks onboard until the vessel arrives at the point of first landing. Additionally in case of juveniles or pregnant sharks are caught, they shall be released into the sea.

Thailand fishery statistic demonstrates that majority of shark finned products sell in Thailand produced from rays and skates which mostly from domestic fleet, and the rest are imported from overseas. All domestic shark catches are utilized by locals, mainly for fresh consumption and are processed as salted or dried products.

5.1.3. Blue shark

There is no record of blue shark catch from Thai fishing vessels until now. However, the monitoring of the shark catch is in place as stated in the NPOA Sharks.





5.2 Seabirds

All Thai fishing vessels operated in the Andaman Sea recorded no interaction with seabirds in 2022. Some purse seiner captains noticed seabirds flying around during fishing operation, however, there were no interaction with fishing gears or be caught in fishing.

Thailand is aware that seabirds are opportunistic feeders and may interact with purse seine and other fishing gears. Thus, the development of national plan of action for minimizing the incidental seabird bycatch (NPOA-seabird) was started in 2022. The NPOA aims to apply to all Thai overseas fishing vessels that fished under regional fisheries management organizations as first priority. The mitigation measures described in the NPOA follows the international seabird mitigation practices.

The NPOA is currently in reviewing process of the National Committee on Fisheries Policy and will be implemented in the near future.

5.3 Marine Turtles

Marine turtles are treated as conservational species and protected by Thai laws. Several measures are implemented to conserve marine turtles and its habitats which followed the FAO Guideline to Reduce Sea Turtle Mortality in Fishing Operation. The followings are some mitigation measures on marine turtles;

1. Royal Ordinance on Fisheries B.E. 2558 (2015) and its amendment B.E. 2560 (2017) in section 66; Turtle and marine mammals are not allowed to be fished, disturbed or taken onboard, except for rescue purpose. The turtles and marine mammals that are accidentally caught alive have to be released immediately, or if injured they must have emergency treatments before releasing to the sea.

2. Notification of the Department of Fisheries on Requirement and Regulations of Fishing Vessels Operating Outside Thai Waters in IOTC Area of Competence (IOTC) B.E. 2566 (2023);

Clause 14 Purse seiners are prohibited setting a purse seine net around a cetacean, marine

mammal, marine turtles or whale shark, if the animal is sighted prior to the commencement of the set.

Clause 16 Fishing vessel using purse seine shall carry and employ dip nets for rescuing marine turtles.

Clause 18 In case of fishing vessel has incidental bycatch such as marine mammal, dolphin, whale, dugong, marine turtle, mobulid rays, oceanic whitetip sharks, thresher sharks, blue shark, scalloped sharks, whale shark, sea bird, the master of the vessel shall release and record in the format of incidental catch logsheet of IOTC and submit to the Fishing Operation and Fleet Management Division, the Department of Fisheries when conducted the transshipment or landing the catch.

Clause 19 In case that the marine turtle is caught from fishing and it looks weak or getting injuries, it should be brought up to the vessel and take care of it until healthy and release to the sea in accordance with handling guidelines in the Marine Turtle save life and Identification as appended to this Notification.

Clause 20 All longline vessels shall carry line cutters and de-hookers in order to facilitate the appropriate handling and prompt release of marine turtles caught or entangled.

3. Notification of Ministry of Agriculture and Cooperatives, prescribes to install the Turtle Excluder Devices (TED) for shrimp trawler in the fishing area dated 16 September 1996.

4. Wild Animal Preservation and Protection Act B.E. 2562 (2019). Marine turtles are also protected under this regulation.

5. Ministerial Regulation Prescribing Species of Protected Wildlife that May Be Bred in Captivity B.E. 2546 (2003).

5.4 Other ecologically related species (e.g., cetaceans, mobulid rays, whale sharks)

Thailand has the legislations related to other ecologically related species measures as follows:

1. Notification of the Department of Fisheries on Requirement and Regulations of Fishing Vessels Operating Outside Thai Waters in IOTC Area of Competence (IOTC) B.E. 2566 (2023)

2. Wildlife Preservation and Protection Act B.E 2562 (2019), Section 12 No person shall hunt the wildlife preservation and protection, and;





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3. Ministerial Regulation Prescribing some Wild Animal Species to Became Wildlife Protection (No. 4) B.E. 2561 (2018), identified the species of wildlife protection including Mobulidae as follows; *Mobula thurstoni*, *Mobula kuhlii*, *Mobula eregoodootenkee*, *Mobula japanica*, *Manta alfredi*, *Manta birostris*, *Himantura chaophraya*, *Rhina ancylostoma*, *Pristis zijsron*, *Anoxypristis cuspidata*, *Pristis pectinata* and *Pristis pristis*.

6. NATIONAL DATA COLLECTION AND PROCESSING SYSTEMS

6.1. Logsheet data collection and verification

For commercial fishing vessels operating inside Thai waters, logbook data are collected at landing sites. Catch data in logbook are verified with the actual landing weight at port. Both logbook and landing data has been recorded in the "Thai-flagged Catch Certification" database system for the purpose of domestic catch traceability system. In 2022, there were 23,892 purse seine vessel trips and 1,418 trips monitored the offloading at port and crosschecked data with logbook accounted more than 5% of the total trips.

Data collection of Thai overseas fisheries has been categorized into two methods. The first method is collecting information from daily report while vessels were fishing or having transhipment activity outside Thai waters. This data was transmitted via satellite system. Another method is collecting data from landing sites.

6.2. Vessel Monitoring System

Since 2015, Thailand has implemented the VMS (Vessel Monitoring System) on all fishing vessels larger than 30 gross tonnages. The VMS must be active at all times and transmit a signal every hour. VMS information can be monitored through an online application. This information can be used to trace the navigation of fishing vessels and analyse individual fishing behaviour. Overseas fishing vessels are required to carry an approved spare VMS set. If the main VMS is malfunction, vessels must inform the Fisheries Monitoring Center (FMC) and, if necessary, can replace the spare VMS within twelve hours of notifying the FMC.

6.3. Observer scheme

Electronic Observer programme

Electronic Monitoring (EM) is a crucial tool used to monitor fishing activities, transshipment, and seaman transfers. It is a component of the Electronic Observer program that is required to be installed on overseas and transshipment vessels. Closed-circuit television (CCTV) systems continuously record activities at sea for subsequent analysis. Electronic sensors are affixed to fishing gear and transshipment equipment, including winches, cranes, and storage compartments. Any usage or movement of these gears and equipment will activate cameras to capture a photo and automatically transmit the data to the Fisheries Monitoring Center (FMC) via satellite.

Human Observer programme

In compliance with IOTC Resolution 22/04 on a Regional Observer Scheme, DOF mandates that authorized fishing vessels operating within the IOTC area of competence must adhere to specific criteria for having observers on board, as outlined below:

Scientific observer coverage:

(a) During transshipment at sea within the IOTC area of competence, such activities are permitted solely for large-scale longline tuna fishing vessels, which must have a regional observer present at all times during transshipment.

(b) For other fishing vessels operating in the IOTC area of competence, compliance with a minimum observer coverage of 5% is required, as defined by the number of operations/sets.





Transhipment Observer

The Royal Ordinance on Fisheries B.E. 2558 (2015), and its amendment B.E. 2560 (2017) in Sections 50 and 51, outlines the provisions concerning the requirement of fisheries observers. Observers are mandated to be qualified and approved by the Director General of the Department of Fisheries (DOF), Thailand, following their training based on the FAO Guidelines for Developing an At-Sea Fisheries Observer Programme.

For vessels requiring transshipment at sea within the IOTC area of competence, longline vessels must have a transshipment observer present throughout 100% of the transshipment period.

Presently, Thailand operates six carrier vessels within the IOTC area of competence, conducting loading activities at the ports of Maldives. As these operations occur at the port and involve loading alone, they do not necessitate a human observer onboard, given the Port Authority officers' capability to oversee and inspect all activities at the port.

6.4. Port sampling programme

Scientific sampling survey is carried out monthly by Marine Fisheries Research and Development Division, Department of Fisheries. Landed fishing vessels are sampled at ports on accidental sampling basis. The fishery data are collected by two methods; 1) interviewing for fishing information from captains, assistant captains, or vessel owners for fishing day, number of hauls, fishing grounds, catch, and other relevant information, and 2) sampling the catch for its composition and measure the length of economic species.

The length of IOTC species is collected during the scientific sampling. Measured fishes were sampling from domestic purse seiners which all fished within Thailand's EEZ. Total of 19,775 fishes were measured in 2022. The numbers of measured fish are presented in Table 5.

Coord	Andaman Sea				
Gears	Number of vessel trips notified to port in	Number of vessel trips sample			
Purse seine	23,876	1,418			

 Table 4. Number of vessel trips or vessels active monitored in 2022

Species	Code	No. of measured fish
Auxis rochei	BLT	2,468
Auxis thazard	FRI	2,312
Euthynnus affinis	KAW	6,214
Istiophorus platypterus	SFA	42
Katsuwonus pelamis	SKJ	1,012
Scomberomorus commerson	COM	471
Scomberomorus guttatus	GUT	146
Thunnus albacares	YFT	7
Thunnus tonggol	LOT	3,029
Total		15,701

Table 5. Number of fish measured, by species from purse seine in 2022

6.5. Unloading/Transhipment of flag vessels

In 2022, two Thai carrier vessels were unloaded and transshipped at Vitoria port, Seychelles with the total weight of 1,418,640 kilograms and 7,416,170 kilograms respectively as presented in Table 6. There is no unloading and transshipping activities located in port of Thailand in the IOTC area of competence.





Table 6. Quantities by species and fishery landed in ports located in the IOTC area of competence

Γ	Trip No.	Port of landing	Flag		Unloaded weight species (kg)			
т				Fishing gear	Skipjack	Yellowfin	Bigeye tuna	Total
-					tuna	tuna		weight
a	1	Victoria Port,	Thailand	Carrier vessel	1,418,640	-	-	1,418,640
b		Seychelles						

¹

e 7. Quantities by species and fishery transhipped in ports located in the IOTC area of competence

Trip No.	Port of	Fishing	Flag	Fishing	Tra	nshipped wei	ght species	(kg)
	transshipping	Vessel Name		gear	Skipjack	Yellowfin	Bigeye	Total
					tuna	tuna	tuna	weight
1	Victoria Port,	CAP SAINT	France	PS	405,717	96,353	23,720	525,790
	Seychelles	VINCENT						
	Victoria Port, Seychelles	DONIENE	Spain	PS	174,470	-	-	174,470
	Victoria Port,	DRENNEC	France	PS	369,385	69,987	24,968	464,340
	Seychelles	DIGLIGICE	Tunee	15	507,505	0,,,07	24,900	-10-1,5-10
	Victoria Port,	BLUE	Korea	PS	852,240	42,420	145,210	1,039,870
	Seychelles	OCEAN	Horeu	15	052,210	12,120	113,210	1,009,070
	Victoria Port,	GLENAN	France	PS	141,604	77,198	5,868	224,670
	Seychelles				ŕ			
2	Victoria Port,	BERNICA	France	PS	535,638	214,907	79,755	830,300
	Seychelles							
	Victoria Port,	AVEL VAD	France	PS	359,690	60,144	27,446	447,280
	Seychelles							
	Victoria Port,	TREVIGNON	France	PS	155,366	86,947	7,017	249,330
	Seychelles							
	Victoria Port,	EUSKADI	Seychelles	PS	424,143	95,420	12,085	531,648
	Seychelles	ALAI						
	Victoria Port,	BELOUVE	Mauritius	PS	413,688	71,710	36,432	521,830
	Seychelles							
	Victoria Port,	CAP SAINTE	France	PS	449,341	28,833	6,776	484,950
2	Seychelles	MARIE		D.C	152 524	(2) 2 20	20 50 6	5 <1 07 0
3	Victoria Port,	BELLE RIVE	Mauritius	PS	453,534	68,230	39,506	561,270
	Seychelles Victoria Port,	BERNICA	France	PS	442.951	66.004	21.005	540 750
	Seychelles	BEKNICA	France	PS	442,851	66,094	31,805	540,750
	Victoria Port,	IZARO	Seychelles	PS	421,516	_	_	421,516
	Sevchelles		Seychenes	15	421,510	_	-	+21,510
	Victoria Port,	EUSKADI	Seychelles	PS	391,728	6,085	343	398,156
	Seychelles	ALAI	20yenenes	1.5	371,720	0,000	515	570,150
			1		1	Tot	al weight	7,416,170

6.6. Actions taken to monitor catches & manage fisheries for Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish

Billfish are accidentally caught by purse seiners. Thailand has been monitoring billfish catch through logbook and catch declaration document and do sampling in the scientific sampling survey as described in 6.4. Billfish are aggregated and managed as pelagic fish group in the current management regime. MSY of pelagic fish group is assessed every year and fishing licenses are issued based on the MSY.

6.7. Gillnet observer coverage and monitoring

Thailand does not have gill net vessels targeting tunas and tuna – like species operated in the IOTC area of competence, only purse seiners are operated in the Andaman Sea.





6.8 Sampling plans for mobulid rays

Thailand does not have a specific plan for mobulid rays sampling. The scientific sampling program as described in 6.4 is applied for all cartilaginous fishes which includes mobulid rays.

7. NATIONAL RESEARCH PROGRAMS

There were no research programs in 2022.

7.1. National research programs on blue shark None

7.2. National research programs on Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish

None

- **7.3. National research programs on sharks** None
- **7.4. National research programs on oceanic whitetip sharks** None
- **7.5. National research programs on marine turtles** None.
- **7.6. National research programs on thresher sharks** None
- 8. IMPLEMENTATION OF SCIENTIFIC COMMITTEE RECOMMENDATIONS AND RESOLUTIONS OF THE IOTC RELEVANT TO THE SC.

Thailand is compliant with IOTC resolutions relevant to the Scientific Committee. Table 8 details the resolutions and how they have been implemented.

Res. No.	Resolution	Scientific requirement	CPC progress
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels.
12/06	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels.
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels.

Table 8. Scientific rec	quirements contained in R	esolutions of the Comm	mission, adopted between	n 2012 and 2022.





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Res. No.	Resolution	Scientific requirement	CPC progress
13/04	On the conservation of cetaceans	Paragraphs 7– 9	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels.
			Moreover, Thailand has implemented the National Action Plan for Marine Mammal Conservation and Management 2023 – 2027. The National Action Plan aims to reduce the impact that causes death or severe injury to marine mammals such as dolphins, whales, dugongs, etc.
13/05	On the conservation of whale sharks (<i>Rhincodon typus</i>)	Paragraphs 7– 9	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels.
			Thailand enforces the Royal Ordinance on Fisheries B.E. 2558 (2015) and its amendment B.E. 2560 (2017) in section 66; Turtle and marine mammals are not allowed to be fished, disturbed or taken onboard, except for rescue purpose. The turtles and marine mammals that are accidentally caught alive have to be released immediately, or if injured they must have emergency treatments before releasing to the sea.
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels. The scientific data collection and management of shark resources are followed the NPOA Sharks.
15/01	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–10	Thailand collected fisheries information including catch and effort from fishing logbook, landing declaration, and the Electronic Report System.
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	Thailand collected fisheries information in the IOTC area of competence and submitted the reports to IOTC secretariat in accordance with Resolution 15/02.
17/05	On the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 6, 9, 11	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels. The data are submitted to IOTC secretariat in accordance with Resolution 17/05.
18/02	On management measures for the conservation of blue shark caught in association with IOTC fisheries	Paragraphs 2-5	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels. The data are submitted via annual report as required in the Resolution.
18/05	On management measures for the conservation of the Billfishes: Striped marlin, black marlin, blue marlin and Indo-Pacific sailfish	Paragraphs 7 – 11	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine





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Res. No.	Resolution	Scientific requirement	CPC progress
			species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels. The data are submitted to IOTC secretariat in accordance with Resolution 18/05.
18/07	On measures applicable in case of non- fulfilment of reporting obligations in the IOTC	Paragraphs 1, 4	Thailand submitted the annual report as required in the Resolution. And Thailand has been enforced the law which has designed incidental bycatch logbook.
19/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (<i>If not provided under</i> <i>Res 21/01 below</i>)	Paragraph 22	Not applicable.
19/03	On the Conservation of Mobulid Rays Caught in Association with Fisheries in the IOTC Area of Competence	Paragraph 11	Thailand has implemented the regulations on recording fishing activities via fishing logbook which appoint the vessel masters to record interaction of conservative marine species, including cetaceans, whale shark, sea turtles, seabirds, and other conservative IOTC species, during fishing in the logbooks. The regulations are applied to domestic vessels and overseas vessels. The data are submitted to IOTC secretariat in accordance with Resolution 19/03.
21/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (<i>If not provided under</i> <i>Res 19/01 above</i>)	Paragraph 23	All Thai fleets fully implemented Resolution 21/01 by reporting yellowfin tuna catch every year.
22/04	On a regional observer scheme	Paragraph 12	All Thai fleets operating within the IOTC's area of competence have completely implemented Resolution 22/04, specifically addressing the Electronic Monitoring System (EMS) detailed in section 6.3.

9. LITERATURE CITED

Ministerial Regulation Prescribing some Wild Animal Species to Became Wildlife Protection (No. 4) B.E. 2561 (2018).

Ministerial Regulation Prescribing Species of Protected Wildlife that May Be Bred in Captivity B.E. 2546 (2003).

Notification of the Department of Fisheries on Requirement and Regulations of Fishing Vessels Operating Outside Thai Waters in IOTC Area of Competence (IOTC) B.E. 2566 (2023).

Notification of Ministry of Agriculture and Cooperatives, prescribes to install the Turtle Excluder Devices (TED) for shrimp trawler in the fishing area dated 16 September 1996.

Office of the Council of State. 2017. Royal Ordinance on Fisheries B.E.2558 (2015) and Royal Ordinance on Fisheries (Amendment) B.E.2560 (2017). Department of Fisheries, Ministry of Agriculture and Cooperatives.

Thailand National Action Plan for Marine Mammal Conservation and Management 2023 – 2027.

Thailand National Plan of Action for the Conservation and Management of Shark: Plan 1, 2020 – 2024.

Wild Animal Preservation and Protection Act B.E. 2562 (2019).