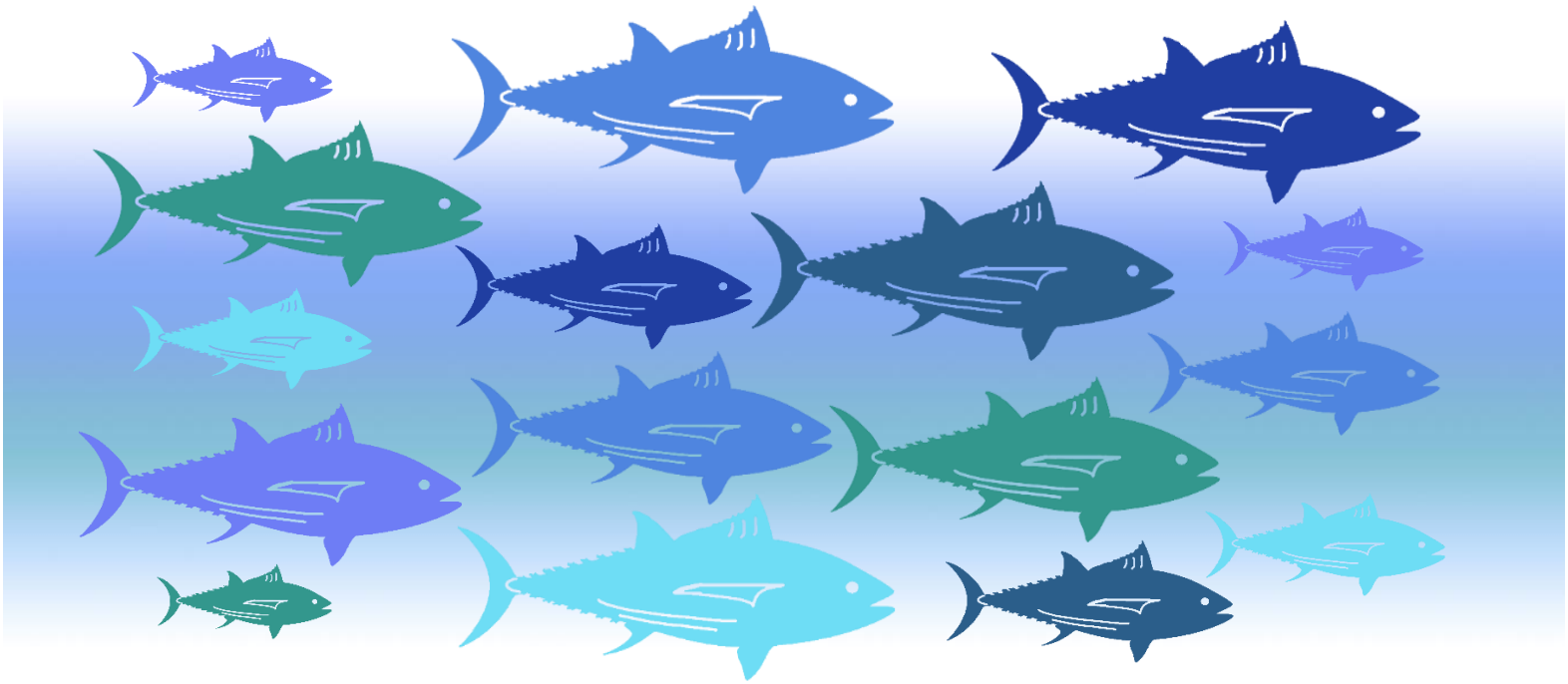
सत्यमेव जयते

India's National Report to the Scientific Committee of the Indian Ocean Tuna Commission 2026



Food and Agriculture Organization of the United Nations

Indian Ocean Tuna Commission
Commission des Thons de l'Ocean Indien
iotc ctoi

IOTC–2026–SC29–NR08

India's National Report to the Scientific Committee of the Indian Ocean Tuna Commission 2026

Sreenath K. R*., Sijo P. Varghese*, Nashad M*., Anju Joseph*, Shoba Joe Kizhakudan[#], Jayasankar J[#]., Rajesh K. M[#]., Eldho Varghese[#], Muktha M[#]., Grinson George[#], Mohammed Koya[$], Sanjay Pandey[$], and Venkatesh Jiyalal Saroj[$].

*** Fishery Survey of India**
Government of India
Mumbai, Maharashtra, India

 # ICAR-Central Marine Fisheries Research Institute
Kochi, Kerala, India

$ Department of Fisheries
Ministry of Fisheries, Animal Husbandry and Dairying,

Government of India, New Delhi, India

INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 15/02 (and other data related CMMs as noted below), final scientific data for the previous year were provided 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 2026, final data for the 2025 calendar year must be provided to the Secretariat by 30 June 2026)	YES 30/06/2026
In accordance with IOTC Resolution 15/02, 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 2026, preliminary data for the 2025 calendar year were provided to the IOTC Secretariat by 30 June 2026). **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 2026, final data for the 2025 calendar year must be provided to the Secretariat by 30 December 2024).	YES 30/06/2026
If no, please indicate the reason(s) and intended actions:	

Executive Summary

In 2025, total landings of tuna and tuna-like species along the Indian coast were estimated at 3,99,151 tonnes, against 2,23,559, tonnes recorded in 2024. Gill net and gillnet-cum-longliner continued to be the primary gear used, accounting for 32.49% of the catch. Ring net (31.46%), and trawl nets (15.30%) followed, with hook and line (11.12%) also making significant contributions. Pole-and-line fishing, practised exclusively in the Lakshadweep archipelago added 3.51% to the total, while other gears such as troll lines, beach seines and hand lines contributed smaller quantities.

The fishery showed clear regional variation. The west coast of India (FAO Area 51) accounted for the majority of the catch (69.75%), while the east coast (FAO Area 57) accounted for the remaining 30.24%. Landings in 2025 included eight tuna species, with five neritic species making up 63.82% of the total and three oceanic species contributing 36.18%. The most abundant species in Indian tuna fishery were kawakawa (*Euthynnus affinis*, 24.39%) and narrow-barred Spanish mackerel (*Scomberomorus commerson*, 13.25%), followed by skipjack tuna (*Katsuwonus pelamis*, 11.25%), yellowfin tuna (*Thunnus albacares*, 10.43%) and frigate tuna (*Auxis thazard*, 8.37%).

Importantly, there were no reported interactions between the Indian tuna fishery and seabirds during the year, nor were there any recorded mortalities of sea turtles, marine mammals, or whale sharks - species protected under Schedule I of India's Wildlife (Protection) Act, 1972.

Data for these estimates are collected and compiled through a collaborative effort by the Fishery Survey of India (FSI), Department of Fisheries, Government of India, ICAR–Central Marine Fisheries Research Institute (ICAR–CMFRI), and the fisheries departments of coastal States and Union Territories.

Contents

Executive Summary 3
List of Tables 5
List of Figures 5
1.0 Background/General Fishery Information 6
2.0 Fleet Structure 7
3.0 Catch and Effort by Species and Gear 7
3.1 Longline tuna fishery in India 13
4.0 Recreational Fishery 14
5.0 Ecosystem and By-catch Issues 14
5.1 Sharks 14
5.1.1. NPOA sharks 14
5.1.2. Sharks finning regulation 14
5.1.3. Blue shark 16
5.2 Sea birds 16
5.3 Marine turtles 16
5.4 Other ecologically related species (e.g., cetaceans, mobulid rays, whale sharks) 17
6.0 National Data Collection and Processing Systems 18
6.1 Log Sheet data collection and verification 18
6.2 Observer programme 18
6.3 Port sampling programme 19
6.4 Actions taken to monitor catches & manage fisheries for Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish 19
6.5 Gillnet observer coverage and monitoring 19
6.6. Sampling plans for Mobulid rays 19
6.7. Electronic Monitoring Standards (Mandatory for CPC implementing EMS 20
7.0. National Research Programmes 20
7.1 National research programs on blue shark 20
7.2 National research programs on Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish 21
7.3 National research programs on sharks 22
7.4 National research programs on oceanic whitetip sharks 22
7.5 National research programs on marine turtles 23
7.6 National research programs on thresher sharks 24
8.0. Status of Implementation of the Recommendations/Resolutions of the IOTC 26
9.0. Literature Cited 28

List of Tables

Table 1: Fishing fleet structure of India, 2025 7
Table 2. Annual trends in the nominal catch (tonnes) of tuna and allied resources (2021-2025) 12
Table 3: Indian longline vessels in the IOTC RAV 13
Table 4. Sharks and rays listed in Schedules I and II of the Indian Wild(life) Protection Act 15
Table 5: Gear-wise nominal catch (tonnes) of tuna and allied resources from the coastal and oceanic fishery in India, 2025 25

List of Figures

Figure 1: Exclusive Economic Zone of India 6
Figure 2: Gear-wise catch composition (quantity in t) in tuna fishery in India, 2025 8
Figure 3: Group-wise catch composition of tunas and tuna-like fishes in India, 2025 8
Fig. 4: Nominal catch of tropical tunas (yellowfin, skipjack and bigeye tunas), 2025 9
Figure 5a: Tropical tuna catch from west and east coasts of India, 2025 9
Figure 5b: Map showing group-wise catch composition of tunas and tuna-like fishes in India (2025) 10
Figure 6: Gear-wise catch (tonnes) of tropical tunas in India, 2025 11
Figure7: Area-wise composition of major groups/species of tuna and tuna-like fishes in India, 2025 12
Figure 8: Historical annual landings in the Indian tuna and tuna-like species fishery 13
Figure 9: Map showing the spatial distribution of observer coverage 18

1.0 Background/General Fishery Information

India has a long coastline of 11,098 km with a continental shelf area of 0.53 million square km and exclusive rights over the marine living and non-living resources of 2.02 million square kilometres Exclusive Economic Zone (EEZ). Owing to this vast area of marine waters under her jurisdiction, marine fisheries have always played an important role in food and nutritional security, livelihoods and economic prosperity of the nation. Further, marine fisheries are a major source of employment and livelihoods for one million coastal fishermen and households, and also generate multiplier employment in ancillary activities like fish processing and marketing. The Government of India has always been keen on sustainable harvest for perpetuity of fisheries resources.

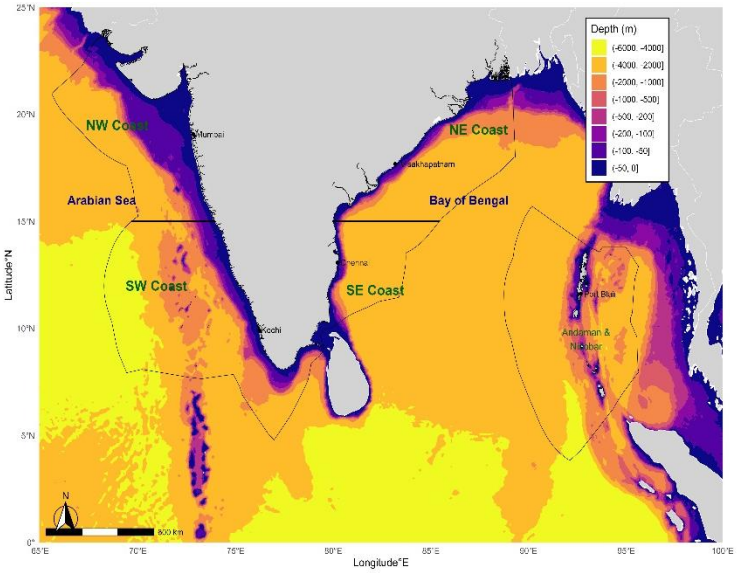


Figure 1: Exclusive Economic Zone of India

Fisheries contribute 1.34% to India's economy (GoI, 2025). During 2024-25, the total marine fish production was 4.61 million tonnes (GoI, 2025), and the estimated value of marine fish landings in 2025 was estimated at INR 692.54 billion (approx. USD 7.28 billion) at the landing center level (up 10.45% from 2024) and INR 977.02 billion (approx. USD 10.27 billion) at retail market (CMFRI, 2026). India has also become a major global player in the seafood trade, with total seafood exports amounting to over 1.97 million M T, valued at over US$ 8455.76 million during 2025-26 (MPEDA, 2026).

India's Exclusive Economic Zone (EEZ) covering 2.02 million sq.km contains diverse and multi-species fish stocks, exploited by multi-gear fisheries, which are mostly concentrated in the coastal areas (<100m depth). Major fisheries exploit small pelagics (*e.g.* sardines, mackerels), demersals (*e.g.* perches) and crustaceans (*e.g.* shrimps). The fishing fleet structure is mainly comprised of mechanized (62,119 nos.), motorized (1,23,072 nos.) and non-motorized (39,308 nos.) craft, operating from 1,547 landing centres in the 9 coastal States, 2 Union Territories (UTs) and the 2 Island groups.

In India, the small-scale and artisanal sectors largely contribute to the tuna fishery, deploying both mechanized[1] and motorized[2] boats, using a variety of gear. The Lakshadweep group of Islands located in the Arabian Sea (FAO Area 51) use artisanal pole and line targeting the surface swimming oceanic species, primarily the skipjack tunas. In the past one decade, efforts were made to convert small-scale trawlers into longliners to promote resource-specific fishing within the country's EEZ.

2.0 Fleet Structure

The Indian fishing fleet comprises of an assemblage of fishing boats that mainly include trawlers, gillnetters, small purse/ring seiners, hooks and line boats, etc. Other than pole and line, and to some extent hooks and lines, all other gears catch a variety of species including tunas. Indian marine fisheries are exclusively small-scale in nature and the Government of India does not permit Indian commercial vessels to fish outside the Indian EEZ as per the prevailing management measures. Table 1 below provides the data on the fishing fleet structure.

Table 1: Fishing fleet structure of India, 2025

Craft/Gear	Mechanised	Motorised	Non-motorised	Total
Trawlers	30805	235	29	31069
Gillnetters	20864	86917	22255	130036
Gillnet cum longliners	2	0	0	2
Dol/Bagnetters	6440	760	891	8091
Longliners	547	1020	150	1717
Hooks & liners	507	4868	2400	7775
Ring seiners	3	147	1	151
Small Purse seiners	1239	0	7	1246
Pole & liners	7	578	11	596
Others	1705	28547	13564	43816
Total	**62119**	**123072**	**39308**	**224499**

3.0 Catch and effort by species and gear

The Indian fishery of tuna and tuna-like species (hereinafter referred to as tuna fishery) comprised a complement of 12 types of gear and gear combinations (plus some minor gears operated locally) harvesting a total of 15 tuna and tuna-like species in 2025. Table 2 provides the composition of species/groups harvested by different gear types.

[1] ***In India, the mechanized fleet pertains to fishing vessels fitted with inboard engines that are used for both propulsion and hauling the gear. The mechanized boats have a wheel house and the entire fleet is below 24-meter length overall (LoA).***

[2] ***The Indian motorized fleet comprises undecked boats using outboard motors for propulsion only. The entire fleet is below 24 meter LoA.***

The total landings of tuna and tuna-like species along the Indian coast for 2025 are estimated at 3,99,151 t, an increase of 78.5% over the 2,23,559 t recorded in 2024. Gill net and gillnet-cum-longliner continued to be the primary gear used, accounting for 32.49% of the catch. Ring net (31.46%), and trawl nets (15.30%) followed, with hook and line (11.12%) also making significant contributions. Pole-and-line fishing, practised exclusively in the Lakshadweep archipelago added 3.51% to the total, while other gears such as troll lines, beach seines and hand lines contributed smaller quantities. (Fig. 2 & Table 2,3).

The fishery showed clear regional variation. The west coast of India (FAO Area 51) produced the majority of the catch (69.75%), while the east coast (FAO Area 57) accounted for the remaining 30.24%. Landings in 2025 included eight tuna species, with five neritic species making up 63.82% of the total and three oceanic species contributing 36.18%. The most abundant species in Indian tuna fishery were kawakawa (*Euthynnus affinis*, 24.39%) and narrow-barred Spanish mackerel (*Scomberomorus commerson*, 13.25%), followed by skipjack tuna (*Katsuwonus pelamis*, 11.25%), yellowfin tuna (*Thunnus albacares*, 10.43%) and frigate tuna (*Auxis thazard*, 8.37%).

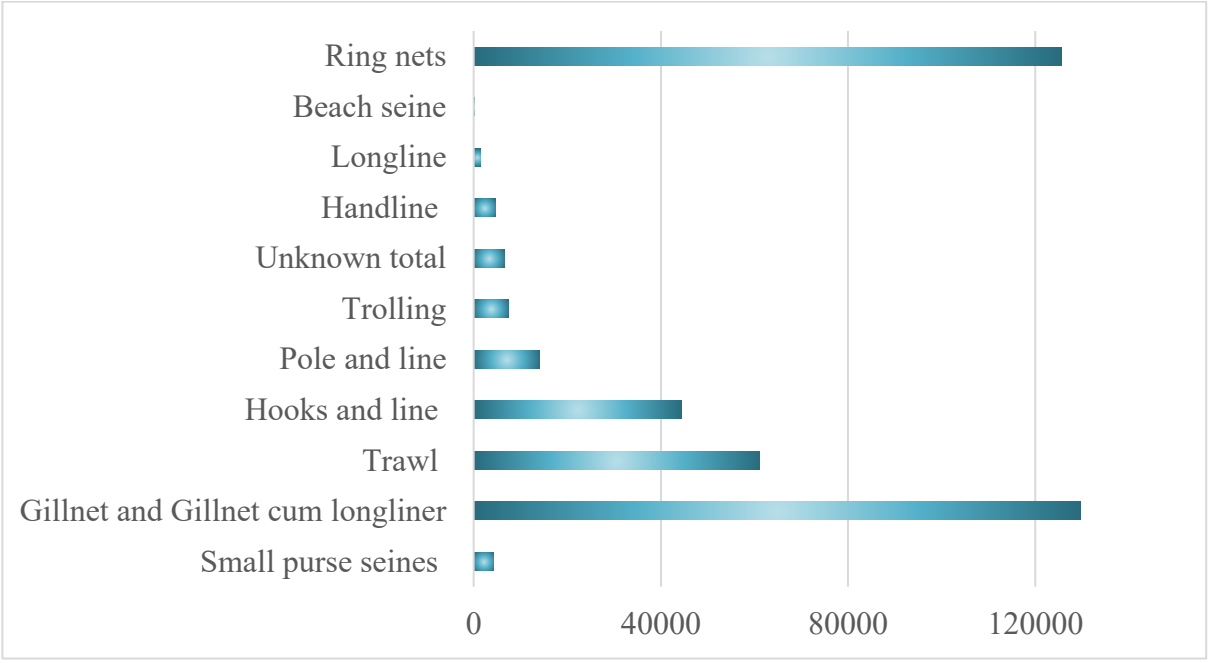


Figure 2: Gear-wise catch composition (quantity in t) in tuna fishery in India, 2025

Oceanic tunas comprising three species {Yellowfin (YFT), Skipjack (SKJ) and Bigeye (BET) tunas} contributed to 22.21% and neritic tunas comprising five species contributed to 39.19% of the total catch of tuna and tuna-like species in 2025.

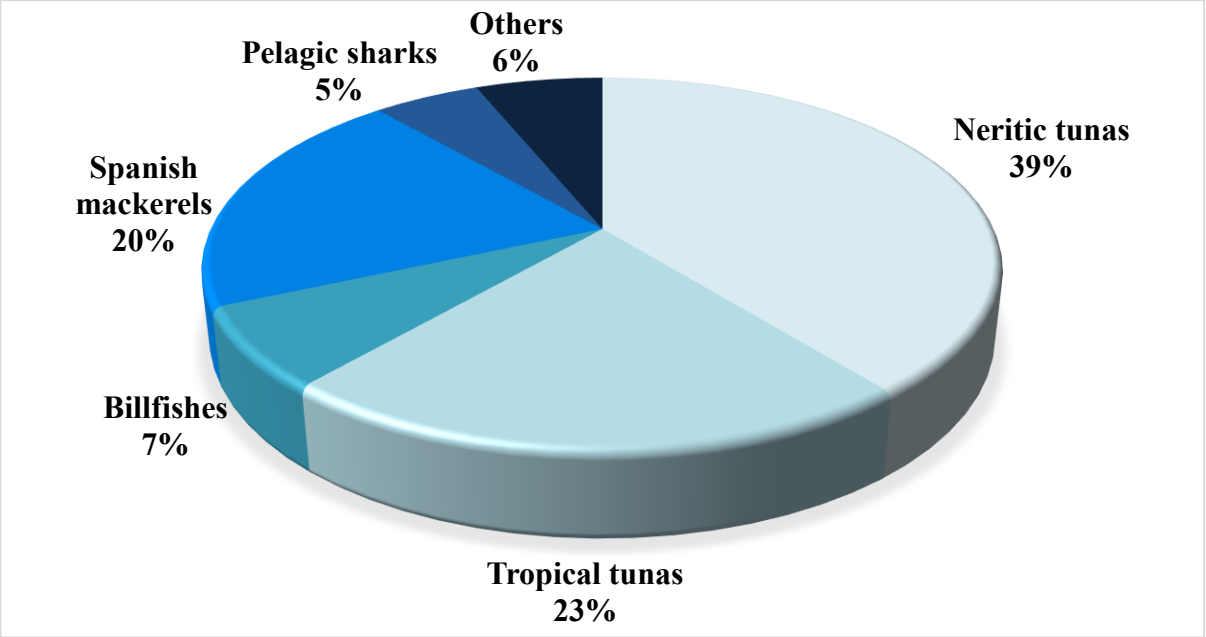


Figure 3: Group-wise catch composition of tunas and tuna-like fishes in India, 2025

Spanish mackerels also contributed significantly (20.41%) to the total catch of tuna and tuna-like species in India during the year 2025. Billfishes, including Indo-Pacific sailfish, marlins and swordfish collectively formed 7.0%, whereas pelagic sharks (5.19%) and the other species (6.18%) constituted the rest of the catch (Fig. 3).

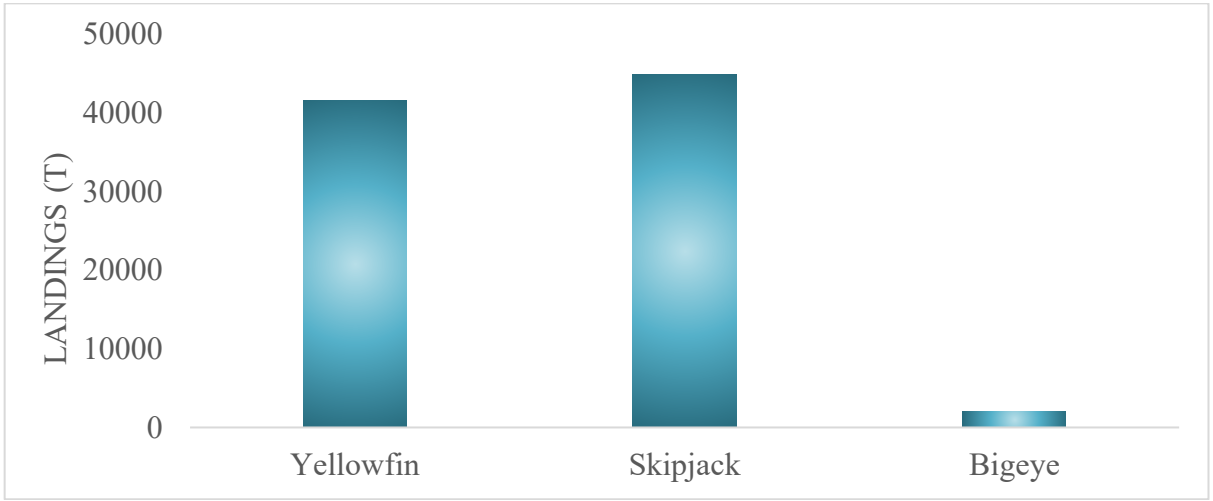


Figure 4: Nominal catch of tropical tunas (yellowfin, skipjack and bigeye tunas) in India, 2025

The nominal catch of tropical tunas (yellowfin, skipjack and bigeye tunas), in 2025 was 88,676 t, comprising 41,656 t of yellowfin tuna, 44,938 t of skipjack tuna and 2082 t of bigeye tuna (Fig. 4). Area-wise statistics indicate that 54.71% of the total catch was from the west coast of India

including the Lakshadweep Islands (FAO Area 51), whereas the remaining 45.28% was from the east coast, including the Andaman and Nicobar Islands (FAO Area 57) (Figs. 5a, 5b).

The landings on the east coast of India comprised 44.86% of yellowfin, 55.09% of skipjack and 0.03% of bigeye tuna, whereas the west coast landings constituted the remaining 48.72% of yellowfin, 47.01% of skipjack and 4.26% of bigeye during 2025.

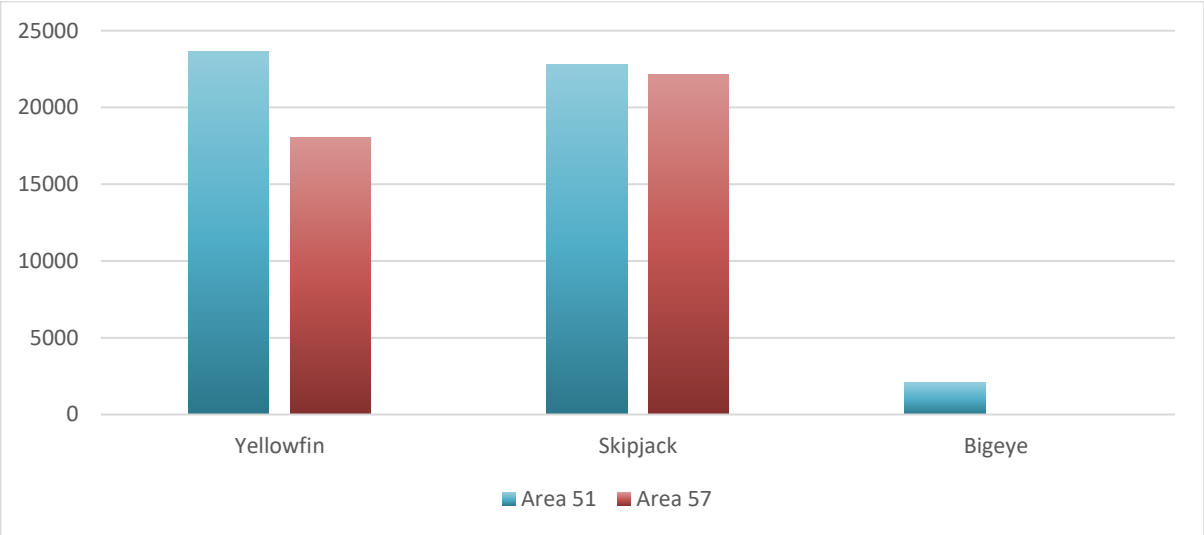


Figure 5a. Tropical tuna catch from west and east coasts of India, 2025

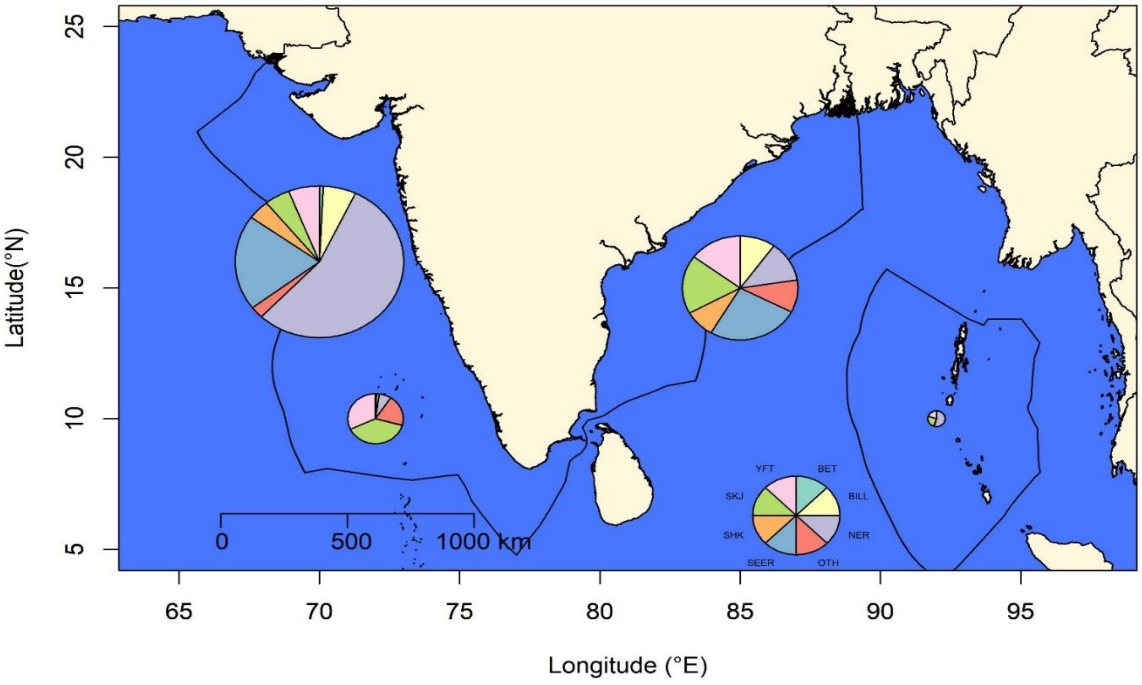


Figure 5b: Map showing group-wise catch composition of tunas and tuna-like fishes in India (2025)

More than ten types of fishing gears were employed for catching tropical tunas in India in 2025. Gill net and gillnet-cum-longliner continued to be the primary gear used, accounting for 32.49% of the catch. Ring net (31.46%), and trawl nets (15.30%) followed, with hook and line (11.12%) also making significant contributions. Pole-and-line fishing, practised exclusively in the Lakshadweep archipelago added 3.51% to the total, while other gears such as troll lines, beach seines and hand lines contributed smaller quantities during the year.

Drift gillnet remained the principal gear for exploitation of tropical tunas in India in 2025; it contributed 31.32% of the total landings of tropical tunas that comprised 30.69% of yellowfin, 68.80% of skipjack, and 0.5% of bigeye tuna. Hook and lines caught 19.87% comprising 62.92% of yellowfin, 36.99% of skipjack and 0.07% of the bigeye on 2025. The pole-and-line fishery in Lakshadweep Islands (South-eastern Arabian Sea) contributed 14.22% (26.91% YFT, 72.47% SKJ and 0.6% BET).

Gillnet-cum=longliners contributed 14.10% to the total tropical tuna catch, which included 49.30% YFT, and 50.67% SKJ and 0.01% of BET. Trawlers contributed to 9.27%, catching 6.7% of total YFT caught, and 2.09% SKJ. Contributions by the other gears, including small purse seines to the tropical tuna catch of India during 2025 was marginal (Fig. 6).

Considerable spatial variation was observed in the landings of the tuna and tuna-like species during 2025 in India. The west coast of India (FAO area 51), where the fishing fleet is more mechanized, contributed the larger share (69.75%) while the east coast (FAO area 57) contributed 30.24% (Fig. 7). Neritic tunas were the dominant group in the landings of the west coast. 100% of the *Thunnus tonggol*, 87.44% of *Auxis thazard*, 88.99% of *Euthynnus affinis* and 94.16% of *Auxis rochei* catch was from the west coast. Similarly, tropical tunas were also caught more from the west coast (54.71%). 56.74% of yellowfin, 50.76% of skipjack and 99.34% of bigeye were caught from the west coast.

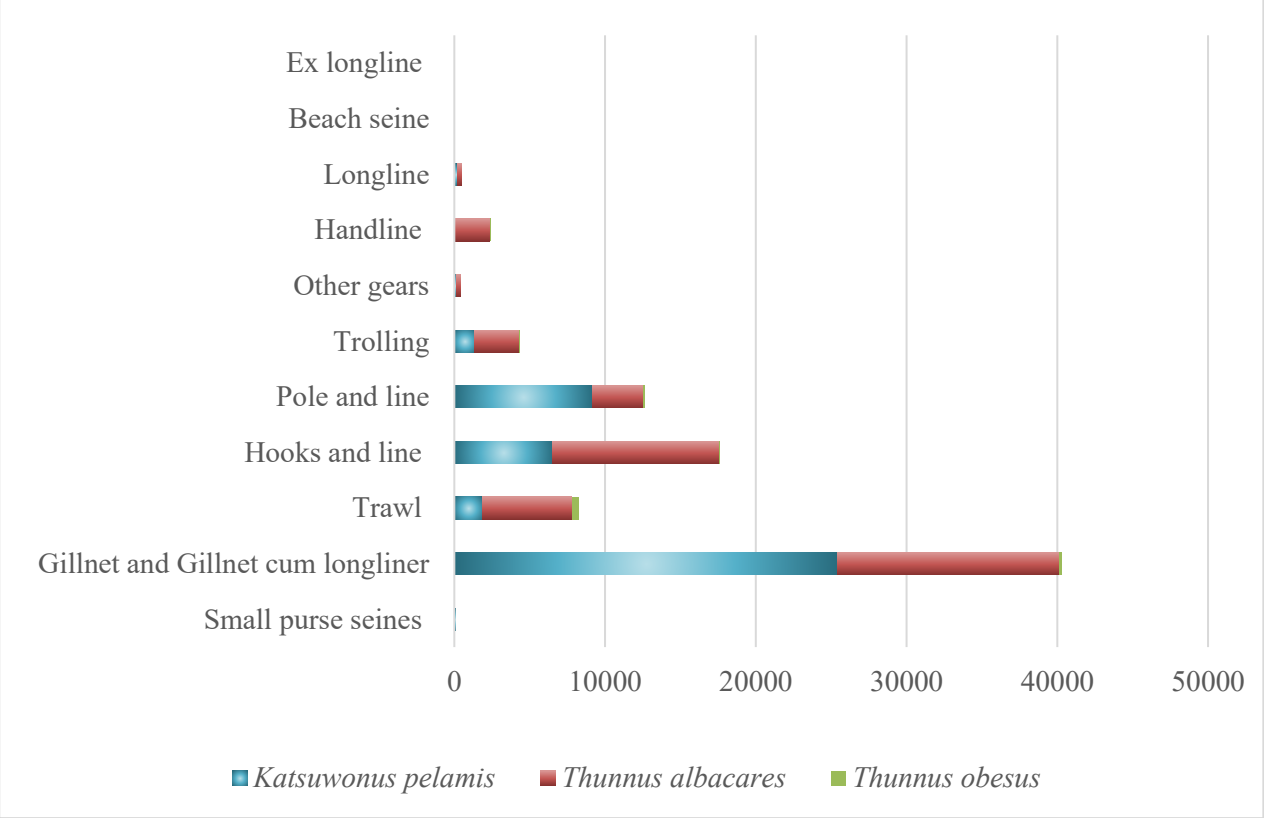


Figure 6: Gear-wise catch (tonnes) of tropical tunas in India, 2025

Analysis of catch trends during 2021–2025 revealed an overall increase in the total catch, rising from 159,743 t in 2021 to 399,151 t in 2025 (Table 3, Figure 8). The catch increased steadily from 2021 to 2024, followed by a substantial rise in 2025. Among the tropical tunas, yellowfin tuna landings fluctuated between 20,851 t and 31,163 t during 2021–2024, before increasing to 41,656 t in 2025. Similarly, skipjack tuna landings increased from 25,861 t in 2021 to 44,938 t in 2025, with a notable rise in the final year. Bigeye tuna landings remained comparatively low and fluctuated considerably, reaching 2,082 t in 2025.

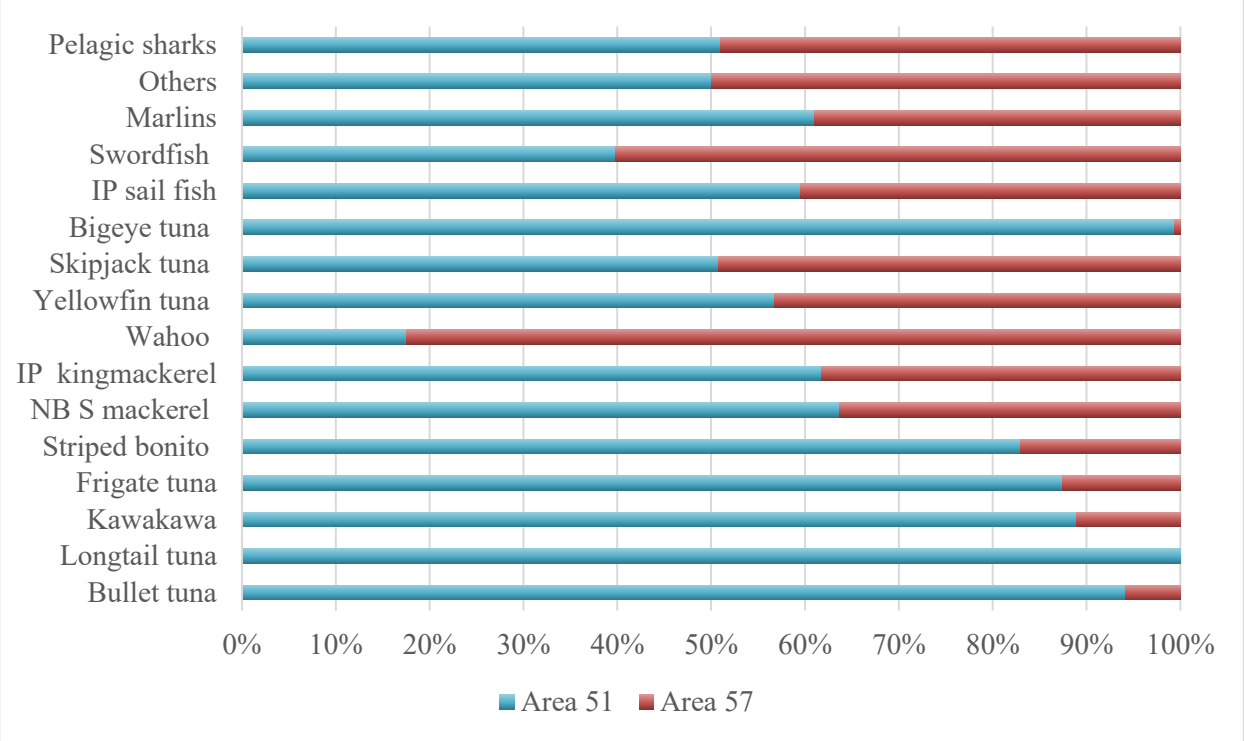


Figure 7: Area-wise composition of major groups/species of tuna and tuna-like fishes in India, 2025

Table 2. Annual trends in the nominal catch (tonnes) of tuna and allied resources (2021-2025)

Species/group	2021	2022	2023	2024	2025
T. albacares	24515	20851	21247	31163	41656
K. pelamis	25861	27639	28421	31101	44938
T. obesus	760	319	569	139	2082
Marlins	3658	4029	8247	13099	12182
I. platypterus	8021	5417	6151	9485	12604
X. gladius	1535	2227	1106	1709	3164
Pelagic sharks	7965	12242	16580	11468	20715
S. commerson	35473	27334	23510	27179	52912
S. guttatus	2182	15314	13612	15748	27774
Spanish mackerels (NEI)	--	1518	1622	--	--
A. thazard	6146	16299	15597	17392	33424
E. affinis	28629	45945	44607	41821	97384
T. tonggol	1707	2755	4347	6536	5722
A. rochei	4715	6079	12495	11535	18972
NEI	8576	5020	3669	5184	25622
Total	**159743**	**192988**	**201780**	**223559**	**399151**

NEI – not elsewhere included

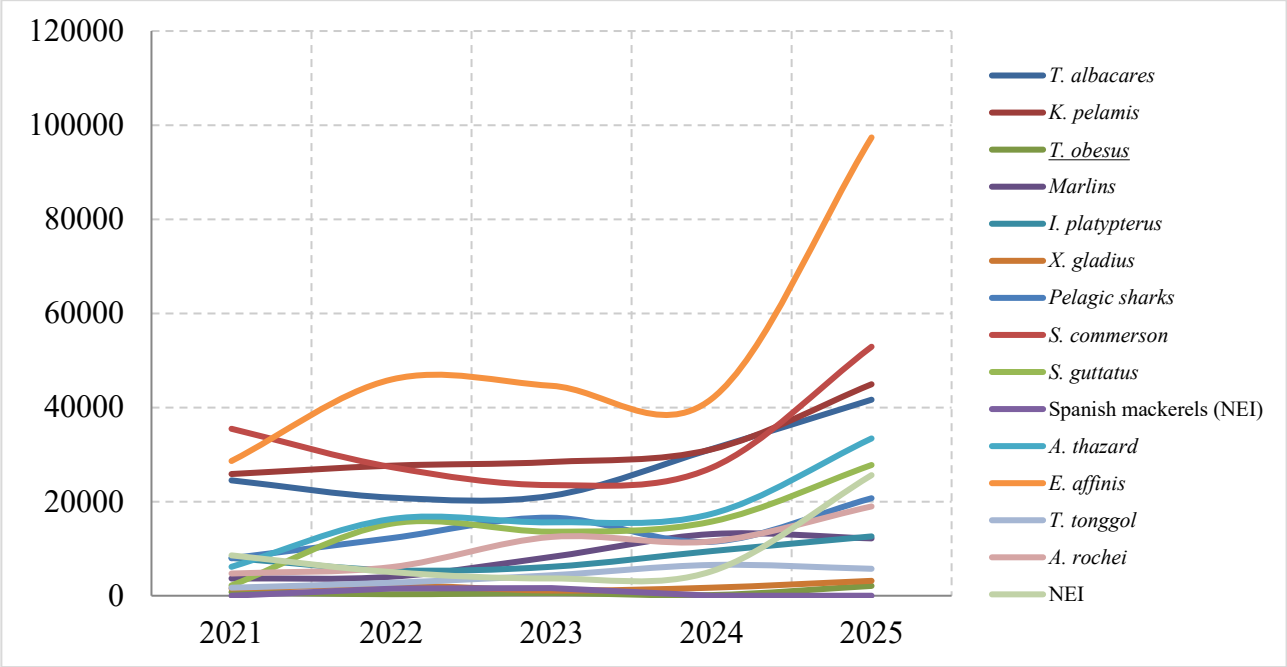


Figure 8: Historical annual landings in the Indian tuna and tuna-like species fishery

3.1 Longline tuna fishery in India

In India, dedicated longline fishery is practiced by the four fishing vessels of the Fishery Survey of India. The key attributes of these four vessels are as follows:

Table 3: Indian longline vessels in the IOTC RAV

Name	*Matsya Vrushti*	Yellow Fin	*Matsya Drushti*	Blue Marlin
LoA (Meter)	37.5	36	37.5	36
GRT (Tonnage)	465	290	465	290
BHP	1100	800	1100	800
Base of operation	Mumbai	Mormugao	Chennai	Sri Vijaya puram
IOTC Registration Number	IOTC 003604	IOTC 003602	IOTC 003605	IOTC 003603

The above-referred four longliners undertake exploratory surveys in the Indian EEZ for tuna and tuna-like species. Since these vessels were undergoing mandatory dry dock repairs, the survey operations could not be undertaken during the reporting year.

4.0 Recreational Fishery

Presently, recreational fishery for tunas is limited to a few licenses issued in the Andaman and Nicobar Islands under the Marine Fishing Regulation Act 2003 and its amendment in 2025 of the UT Administration.

The National Policy on Marine Fisheries, 2017 in its guidance on the promotion of additional/alternative sources of livelihoods, has focused on eco-tourism. in particular game fishing, and the concept of Catch, Photograph and Release (CPR) while undertaking such fishing. Further, the government also proposes to promote CPR schemes among fishermen in suitable areas and will also consider harmonizing tourism plans related to coastal and marine waters with the livelihood needs of the fishers.

5.0 Ecosystem and by-catch issues

5.1 Sharks

The landings of pelagic sharks in India during 2025 were estimated at 20715 tonnes. The west coast (FAO Area 51) accounted for 50.95% and the east coast (FAO Area 57), 49.04%. The mechanized sector contributed to more than 80% of the total landings. Trawls, gillnets, and longlines were the major gears contributing to pelagic shark landings. Targeted shark fishery along the north Kerala coast has almost stopped, following the relocation of fishermen from Tamil Nadu who were engaged in this fishing (Annual Report CMFRI, 2018).

5.1.1. NPOA sharks

India has developed a National Plan of Action (NPOA) as an important policy instrument for the conservation and sustainable management of sharks in line with FAO's International Plan of Action for sharks (IPOA). India has notified and adopted the National Plan of Action for Conservation and Management of Sharks (NPOA-Sharks), providing a framework for reducing fisheries-related threats, strengthening scientific monitoring and research, improving bycatch mitigation, promoting stakeholder participation, and supporting coordinated conservation and management measures across Indian marine waters.

5.1.2. Shark finning regulation

In India, the twenty-six species of marine sharks and rays are listed under Schedule I and II of the Indian Wildlife (Protection) Act, 1972 (Table 4), thereby receiving the highest level of legal protection against their exploitation. These species should not be caught, harvested, or traded. Further, killing or unauthorized possession of the prohibited species is a non-bailable offence, attracting imprisonment for a period ranging from three to five years, and a penalty of Rs 25,000 (about US $ 305). However, as no fishing device is available to exclude these species selectively from the catch, especially from gillnet and hooks & lines, they are sometimes incidentally caught in those fishing gear. Regular awareness drives among the fishing community by government research agencies and NGOs have led to a considerable fall in incidental landings, with an increase in the number of live release of such incidentally caught protected species along the Indian coast.

Table 4. Sharks and rays listed in Schedules I and II of the Indian Wild(life) Protection Act

Common name	Scientific name
SCHEDULE I	
Sharks	
Gangetic shark	*Glyphis gangeticus*
Pondicherry shark	*Carcharhinus hemiodon*
Whale shark	*Rhincodon typus*
Rays, Wedgefishes	
Ganges stingray	*Himantura fluviatilis*
Giant freshwater whipray	*Urogymnus polylepis*
Porcupine whipray	*Urogymnus asperrimus*
Smoothnose wedgefish	*Rhynchobatus laevis*
Bottlenose wedgefish	*Rhynchobatus australiae*
Guitarfishes	
Giant guitarfish	*Rhynchobatus djiddensis*
Bowmouth guitarfish	*Rhina ancylostoma*
Clubnose guitarfish	*Glaucostegus thouin*
Widenose guitarfish	*Glaucostegus obtusus*
Mantas	
Giant manta	*Mobula birostris*
Reef manta	*Mobula alfredi*
Sawfishes	
Common sawfish	*Pristis pristis*
Dwarf sawfish	*Pristis clavata*
Green sawfish	*Pristis zijsron*
Narrow sawfish	*Anoxypristis cuspidata*
SCHEDULE II	
Sharks	
Great hammerhead	*Sphyrna mokarran*
Oceanic whitetip	*Carcharhinus longimanus*
Smooth hammerhead	*Sphyrna zygaena*
Winged hammerhead	*Eusphyra blochii*
Rays	
Sickle fin devil ray	*Mobula tarapacana*
Mottled eagle ray	*Aetomylaeus maculatus*
Ocellate eagle ray	*Aetomylaeus milvus*
Ornate eagle ray	*Aetomylaeus vespertilio*

Further, intending to stop the hunting of sharks and to enable the enforcement agencies to monitor the illegal hunting/poaching of the protected sharks, the then Ministry of Environment and Forest vide its Policy Circular No. F. No. 4-36/2013 WL dated 25th of August 2013 has prohibited the removal of shark fins on board the vessels in the sea. The policy also prohibits any possession of shark fins that are not naturally attached to the body of the shark. In addition, the Ministry of Commerce, Government of India has also notified vide its Order No. 110 (RE. -2013)/2009-2014 dated 6 February 2015 prohibiting the export of shark fins of all species of sharks. The burden of proof will lie on the accused and failing to do so by the accused will attract a penalty as per the Act.

5.1.3. Blue shark

Blue sharks are only sporadically reported as bycatch in India's tuna fisheries. India has a well-established fisheries data collection and monitoring system through which catch data, including information on blue sharks, are routinely collected and monitored domestically. Reported blue shark catches are duly recorded and furnished to the IOTC through the prescribed reporting mechanisms. In parallel, Indian scientists have undertaken research on the biology, distribution and fisheries interactions of blue sharks, with relevant findings published in peer-reviewed scientific literature, including Varghese et al. (2017). These ongoing monitoring and research efforts provide a scientific basis for assessing the occurrence and status of blue sharks in Indian fisheries and for supporting their sustainable management.

5.2 Sea birds

No seabird interactions have been reported from India's tuna fisheries in 2025. Indian tuna fishing vessels are not engaged in fishing operations in the southern Indian Ocean, particularly south of 25°S, where seabird interactions are reported to be of greater concern. During the reporting period, no Indian tuna vessels operated south of 25°S. Consequently, the use of seabird bycatch mitigation measures such as bird-scaring lines, line weighting and night setting was not applicable to the Indian tuna fleet during the period under review. India continues to monitor its tuna fisheries through its established fisheries data collection and monitoring mechanisms, and any reported seabird interactions would be duly recorded and addressed in accordance with applicable IOTC conservation and management measures.

5.3 Marine turtles

India has established a comprehensive national framework for the conservation and management of marine turtles. All five species of marine turtles occurring in Indian waters are listed under Schedule I of the Wild Life (Protection) Act, 1972, thereby receiving the highest level of legal protection. In addition, the Ministry of Environment, Forest and Climate Change, Government of India, has developed the National Marine Turtle Action Plan, which provides a framework for the conservation of marine turtles and their habitats, including protection of nesting and feeding grounds, reduction of fisheries-related threats, strengthening of research and monitoring, and participation of relevant stakeholders.

With regard to fisheries interactions, studies undertaken by Indian scientists have indicated that marine turtle bycatch in the Indian longline fishery is comparatively low, with Varghese et al. (2010) reporting substantially lower interaction rates than those documented in several other longline fisheries. During the reporting period, no marine turtle interactions were observed or

reported in the Indian tuna longline fishery. India continues to monitor fisheries interactions through its established fisheries data collection and observer-based monitoring mechanisms, and information on any marine turtle interactions, including the effectiveness of mitigation measures, would be recorded and reported through the applicable IOTC reporting mechanisms. India also recognises the importance of addressing other anthropogenic threats to marine turtles, including degradation of nesting habitats and ingestion of marine debris, through the broader conservation measures provided under the National Marine Turtle Action Plan.

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

India has established a comprehensive legal and institutional framework for the conservation of ecologically related species, including cetaceans, dugongs, whale sharks and mobulid rays. Marine mammal species occurring in Indian waters, whale sharks and several species of mobulid rays receive legal protection under the Wild Life (Protection) Act, 1972. The Government of India, through its research and conservation agencies, undertakes various programmes for the conservation of marine mammal populations and their habitats. These include the Marine Mammal Stranding Interactive Map developed by ICAR-CMFRI, which provides scientific information on species, habitats and standard operating procedures for responding to marine mammal strandings (CMFRI, 2025).

The Fishery Survey of India (FSI), in collaboration with ICAR-CMFRI, ICAR-CIFT and MPEDA, is implementing the Marine Mammal Stock Assessment in India (MMSAI) programme to assess the distribution, abundance and conservation status of marine mammals and to monitor fisheries-related interactions. Based on extensive scientific surveys undertaken across Indian waters, FSI has estimated the population abundance and Potential Biological Removal (PBR) of marine mammals and developed a comprehensive atlas documenting their spatial and temporal occurrence, distribution and abundance. These assessments provide an important scientific basis for monitoring marine mammal populations, evaluating fisheries interactions and supporting conservation and management measures.

Under the Integrated Development of Wildlife Habitat (IDWH) scheme, priority has also been accorded to threatened marine mammals, including humpback whales and dugongs, for population assessment and conservation monitoring. Further, under the Endangered Species Recovery Programme (ESRP), dugongs have received specific conservation attention, including measures for protection of their populations and seagrass habitats. In this regard, approximately 450 km^2 of area in Palk Bay on the south-east coast of India, has been declared as a Dugong Conservation Reserve for the conservation of dugongs and associated seagrass ecosystems.

India continues to strengthen scientific monitoring, conservation and fisheries-interaction assessment of these ecologically related species through national research programmes and established fisheries data-collection mechanisms. During the reporting period, no significant interactions with these species were observed or reported in the monitored Indian tuna fisheries. Any observed interactions would be recorded and reported through the applicable national and IOTC reporting mechanisms.

6.0 National Data collection and processing systems

The ICAR-Central Marine Fisheries Research Institute (ICAR-CMFRI) collects marine fish landing data along the mainland coast of India using a stratified multistage random sampling methodology. The Fisheries Departments of the respective States and Union Territories also collect marine fish landing data within their jurisdictions. The Fishery Survey of India (FSI) complements these efforts through its exploratory fishery surveys, generating scientific information on marine fishery resources, including species composition, distribution and abundance. The data generated by FSI contribute to the national fisheries database and support the validation and refinement of marine fish landing estimates, particularly through improved species-level identification and extrapolation, wherever necessary.

In addition, Department of Fisheries, Government of India and FSI coordinate the consolidation and integration of marine fish landing data received from multiple institutions and agencies to develop a unified national marine fish landing database. This integrated and collaborative approach facilitates the systematic collection, compilation, validation and processing of marine fisheries data from both the mainland coast and the Island Territories, thereby providing a comprehensive and harmonised national framework for marine fisheries statistics, resource assessment and evidence-based fisheries management.

6.1 Log sheet data collection and verification

All authorized Indian tuna fishing vessels are required to record and report their catches through prescribed log sheets in accordance with the applicable IOTC Conservation and Management Measures and reporting requirements.

6.2 Observer scheme

In India, observers are placed on-board on all the authorized tuna longlining vessels.

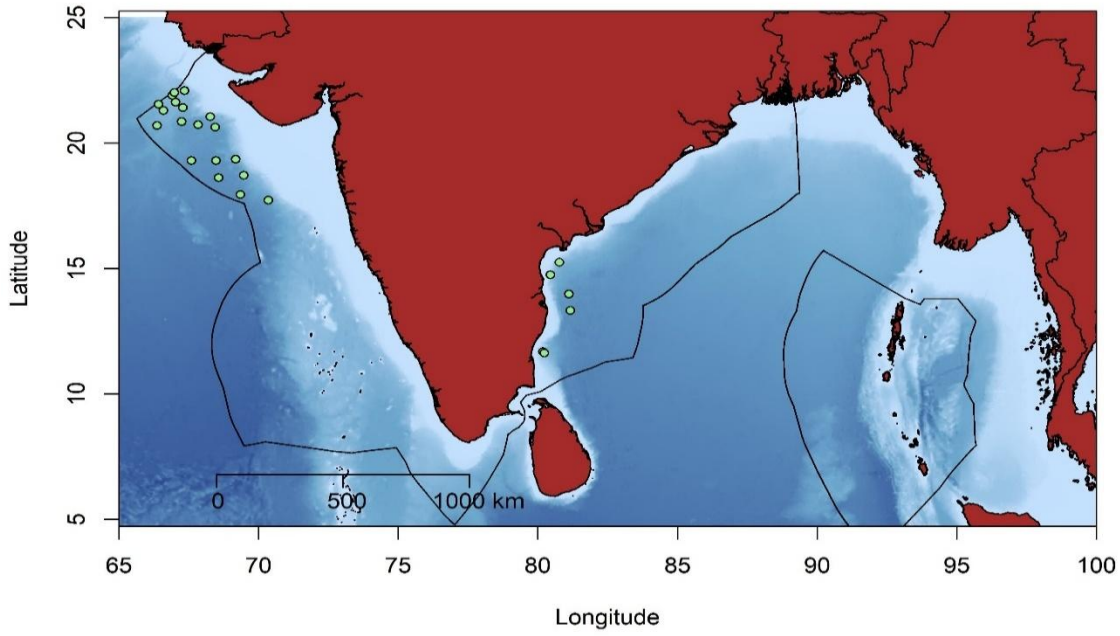


Figure 9. Map showing the spatial distribution of observer coverage.

6.3 Port sampling programme

The ICAR-CMFRI, in collaboration with the Departments of Fisheries of the coastal States and Union Territories, undertakes systematic port sampling at designated landing centres following standardized sampling methodologies. In addition to estimating fish landings, the programme generates important biological information, such as species composition, length and other biological characteristics, as well as relevant socio-economic information on fishing operations and fishers. The data collected regularly through this programme contribute to the national fisheries data collection and management system and support scientific assessment and fisheries management.

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

The landings of Striped Marlin, Black Marlin, Blue Marlin and Indo-Pacific Sailfish are monitored through the sampling programme listed in 6.3.

6.5. Gillnet observer coverage and monitoring

India does not have a large-scale gillnet fishery registered in the IOTC RAV.

6.6 Sampling plans for mobulid rays

IOTC Resolution 19/03 applies to vessels included in the IOTC Record of Authorised Vessels (RAV). India does not currently have commercial fishing vessels operating under the IOTC RAV to which the specific requirements of this Resolution would apply. Nevertheless, India has established strong domestic conservation measures for mobulid rays. Two manta rays and the sickle fin devil ray occurring in Indian waters are protected under the Wild Life (Protection) Act, 1972, and their

capture and retention are therefore subject to the applicable provisions of national wildlife legislation. India continues to monitor fisheries interactions with protected species through its established fisheries data-collection and monitoring mechanisms.

6.7 Electronic Monitoring Standards

India has not implemented an Electronic Monitoring System (EMS) for vessels in the IOTC Record of Authorised Vessels (RAV). As India currently does not have commercial fishing vessels in the IOTC RAV implementing EMS, the fleet-level summary of Vessel Monitoring Plans specified under paragraph 3(c) of Resolution 23/08 is not applicable to the Indian fleet. Accordingly, there are no EMS configurations, camera deployments or vessel-level EMS requirements to be reported under Annex A.

7. NATIONAL RESEARCH PROGRAMS

India has a long-standing and comprehensive research programme on tuna fisheries, combining land-based fishery-dependent sampling with sea-based fishery-independent exploratory surveys. ICAR-CMFRI, in collaboration with the coastal States and Union Territories, undertakes regular sampling at designated fish landing centres to estimate tuna landings and collect socio-economic information on tuna fisheries. ICAR-CMFRI also has a national research program on tuna and tuna-like fishes which supports the collection of species-specific biological data and stock status metrics. These data provide an important basis for monitoring the status and characteristics of tuna fisheries along the Indian coast. The Institute also runs a national research program on elasmobranchs which supports the collection of species-specific biological data and stock status metrics for shark and ray species that interact with the fisheries, as well as developing conservation and management frameworks for this group.

The Fishery Survey of India (FSI) undertakes dedicated exploratory surveys of oceanic tuna resources in the Indian EEZ through its modern longline survey vessels, with vessels based on both the eastern and western coasts. The surveys are conducted according to predetermined sampling programmes and generate information on the distribution and abundance of tuna resources, fishing effort, catch and by-catch, as well as relevant environmental parameters, thereby supporting the assessment and management of tuna and associated resources.

FSI, in collaboration with ICAR-CMFRI, ICAR-CIFT and MPEDA, is also implementing the Marine Mammal Stock Assessment in India (MMSAI) programme to assess the status and distribution of marine mammals in Indian waters, quantify their interactions and mortality associated with fisheries, and identify appropriate mitigation measures. In addition, FSI and ICAR-CMFRI are participating in a research programme on the Stock Structure of Yellowfin Tuna in the Indian EEZ and adjoining high seas, aimed at improving understanding of the population structure and connectivity of yellowfin tuna.

Research on tuna and associated marine resources is further supported by several other national institutions. The Centre for Marine Living Resources and Ecology (CMLRE), under the Ministry of Earth Sciences, undertakes exploratory surveys of marine living resources in the Indian EEZ, including studies relevant to tuna fisheries. The Indian National Centre for Ocean Information Services (INCOIS), National Institute of Ocean Technology (NIOT) and Department of Science and

Technology (DST) also undertake research and technological activities relevant to oceanographic and fisheries processes affecting tuna resources. The Wildlife Institute of India (WII), under the Ministry of Environment, Forest and Climate Change, is also engaged in developing programmes for monitoring marine mammals in Indian waters. Together, these programmes provide a multidisciplinary national research framework covering tuna resource assessment, fisheries monitoring, stock structure, oceanographic parameters, by-catch and conservation of ecologically related species.

7.1. National research programs on blue shark

Blue sharks (*Prionace glauca*) are only sporadically reported as bycatch in India's tuna fisheries. India has a well-established fisheries data collection and monitoring system through which catch data, including information on blue sharks and other elasmobranchs, are routinely collected and monitored. ICAR-CMFRI has a national research program on elasmobranchs which supports the collection of species-specific biological data and stock status metrics for sharks, including blue shark, that interact with the fisheries The Fishery Survey of India (FSI), through its exploratory longline surveys in the Indian EEZ, also collects information on the occurrence, distribution, catch and biological characteristics of sharks, including blue shark. Reported blue shark catches are duly recorded and furnished to the IOTC through the prescribed reporting mechanisms.

In parallel, Indian scientists have undertaken research on the biology, distribution and fisheries interactions of blue sharks, with relevant findings published in peer-reviewed scientific literature, including Varghese et al. (2017). Indian scientists have also contributed to the IOTC Working Party on Ecosystems and Bycatch (WPEB), including through research and ecological risk assessment of sharks in Indian fisheries. These ongoing monitoring and research efforts provide a scientific basis for assessing the occurrence and status of blue sharks in Indian fisheries and for supporting their sustainable management. India will continue to strengthen research on the biological and ecological characteristics, distribution and fisheries interactions of blue sharks and to make relevant scientific information available to the IOTC WPEB and Scientific Committee through the appropriate reporting mechanisms.

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

India undertakes research and monitoring of billfishes, including striped marlin (*Kajikia audax*), black marlin (*Istiompax indica*), blue marlin (*Makaira nigricans*) and Indo-Pacific sailfish (*Istiophorus platypterus*), through a combination of fishery-dependent and fishery-independent programmes. The Fishery Survey of India (FSI), through its exploratory longline surveys in the Indian EEZ, regularly collects geo-referenced catch and effort data on billfishes and associated species, along with biological and environmental information. These surveys provide information on their spatial and temporal distribution, occurrence, catch rates and association with oceanographic and other environmental parameters. FSI survey operations have also recorded billfishes such as sailfish and marlins in tuna longline surveys.

ICAR-CMFRI, through a national research program on tuna and tuna-like fishes, undertakes regular sampling of billfish landings along the Indian coast and has conducted studies on their fishery, species composition, systematics, stock dynamics, growth, mortality, exploitation and

biological characteristics. A comprehensive study on the fishery, systematics and stock dynamics of billfishes landed along the Indian coast examined sailfish, black marlin, blue marlin and striped marlin, including species identification using molecular techniques and assessment of growth, mortality and exploitation parameters. More recently, Indian scientists from ICAR-CMFRI and collaborating institutions have undertaken detailed studies on billfish resources and the fishery and biology of blue marlin in the Eastern Arabian Sea, including reproductive and feeding biology and species-level identification. This work was presented to the IOTC Working Party on Billfish as IOTC-2025-WPB23-10.

Further, Pradeep et al (2026) presented the paper "Billfish fisheries in India with insights into the habitat preference and biology of Swordfish (*Xiphias gladius*) from the Western Indian EEZ" at the 24th Session of the IOTC Working Party on Billfish (WPB24). The study provides additional information from Indian fisheries on billfish occurrence, fishery characteristics and biological and habitat-related aspects, contributing to the scientific information available to the IOTC WPB.

These national research programmes collectively contribute information relevant to the biological and ecological characteristics, distribution, life history, stock dynamics and fisheries interactions of the four billfish species covered under Resolution 18/05. The resulting scientific information is made available through national scientific publications, IOTC Working Party documents and the relevant national reporting mechanisms. India will continue to strengthen research on billfish biology, migration and habitat use, post-release survival and safe-release practices, and on improving the selectivity of fishing practices and gears, as appropriate, and will make relevant findings available to the IOTC Working Party on Billfish and Scientific Committee.

7.3. National research programs on sharks

India has a long-standing programme of research and monitoring on sharks and other elasmobranchs, covering their biology, distribution, reproductive characteristics, stock dynamics, fisheries interactions and conservation. The Fishery Survey of India (FSI), through its fishery-independent exploratory surveys, particularly its tuna longline surveys in the Indian EEZ, regularly records pelagic sharks occurring in association with tuna fisheries and collects information on species composition, distribution, catch and effort, size, sex, biological characteristics and associated environmental parameters. These programs have generated valuable information on the occurrence and biology of several pelagic shark species and contribute to the scientific assessment of their status in Indian waters.

FSI scientists have undertaken detailed studies on the size, sex and reproductive biology of pelagic sharks which examined sex ratios, maturity, length at maturity, reproductive patterns and litter size, providing important life-history information for the management of major pelagic sharks (Varghese et al., 2016, 2017).

ICAR-CMFRI has also undertaken extensive research on sharks and other elasmobranchs through its coastal landing-centre sampling and a national research program on elasmobranchs. The work has addressed species composition, abundance, size structure, growth, mortality, reproductive biology, exploitation, distribution and conservation status of sharks. Studies by CMFRI scientists have included research on silky shark, including its occurrence and biological characteristics along

the Indian coast, as well as work on pelagic thresher and other pelagic sharks (Kizhakudan et al. 2013). CMFRI research has also contributed to improving species identification, understanding the biology and exploitation of shark resources, and identifying conservation and management priorities.

Indian scientists have further contributed to the scientific work of the IOTC Working Party on Ecosystems and Bycatch through studies and working documents on pelagic sharks. These include research on the biology and fisheries interactions of blue shark, silky shark and other pelagic sharks, as well as recent ecological risk assessment work on sharks in Indian fisheries. Such contributions provide information relevant to the assessment of vulnerability, biological productivity and fisheries-related risks to shark populations. The ICAR-CMFRI has prepared Non-Detrimental Findings (NDFs) for Oceanic whitetip, hammerhead sharks, manta rays, other Mobulids, thresher sharks, silky shark, Mako sharks and bowmouth guitarfish (Zacharia et al. 2017; Kizhakudan et al., 2019a, b, 2022; Thomas et al., 2022a, b).

Collectively, these national research programmes address several of the objectives identified under Resolution 17/05, particularly improving knowledge of key biological and ecological parameters, life history, reproductive characteristics, distribution and fisheries interactions of important shark species. They also provide a scientific basis for identifying areas of biological importance and for developing appropriate conservation and management measures. India continues to strengthen research on fishing-gear selectivity, including the effectiveness of alternative leader materials, migration and habitat use, mating, pupping and nursery areas, and handling and safe-release practices to maximise post-release survival, and relevant findings will continue to be made available to the IOTC Working Party on Ecosystems and Bycatch and Scientific Committee through working documents, scientific publications and national reporting mechanisms.

7.4. National research programs on oceanic whitetip sharks

India had formally objected to IOTC Resolution 13/06 and superseding Resolution 25/08. Accordingly, Resolution 13/06 is not binding on India and its specific provisions, including paragraph 6 relating to research for identification of potential nursery areas, are not applicable to India.

Notwithstanding this position, India undertakes research and monitoring of oceanic whitetip shark (*Carcharhinus longimanus*) through its national fisheries data-collection and scientific survey programmes. The Fishery Survey of India (FSI), through its exploratory longline surveys in the Indian EEZ, records the occurrence, distribution, catch, effort and biological characteristics of oceanic whitetip sharks associated with tuna fisheries. FSI scientists have also undertaken detailed studies on the size, sex and reproductive biology of seven pelagic shark species in the eastern Arabian Sea, including oceanic whitetip shark. The study provided information on size structure, sex ratio, maturity and reproductive characteristics, contributing to the understanding of the life-history characteristics of the species (Varghese et al., 2016).

ICAR-CMFRI also collects species-specific information on oceanic whitetip shark through its regular fisheries landing-centre sampling and shark research programmes. These national

research and monitoring activities contribute to improved understanding of the occurrence, distribution, biological characteristics and fisheries interactions of the species in Indian waters.

Thus, while the specific research requirement under paragraph 6 of Resolution 13/06 is not applicable to India, India continues to generate scientific information on oceanic whitetip sharks through its established national research and fisheries monitoring programmes. Relevant scientific findings are made available through scientific publications, IOTC working documents and national reporting mechanisms, as appropriate.

Further, through an Amendment to the country's Wildlife Protection Act, the oceanic whitetip has been placed in Schedule II of the Act, effective April 2023; fishery and trade of this species in any form is thus completely prohibited and deemed as criminal, punishable offences.

7.5. National research programs on marine turtles

India has established a comprehensive national framework for the conservation of marine turtles, supported by legal protection, fisheries monitoring, scientific research and mitigation measures. All five species of marine turtles reported from Indian waters are protected under the applicable national legislation, and are listed in Schedule I of the Wild Life (Protection) Act, 1972, thereby receiving the highest level of legal protection from capture and exploitation. The Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India, has also formulated a National Marine Turtle Action Plan for the conservation of marine turtles and their habitats.

India undertakes research on fisheries-related interactions with marine turtles and on measures to reduce incidental capture. The Fishery Survey of India and the Central Institute of Fisheries Technology (CIFT) have undertaken experimental research on the use of circle hooks in tuna longline fisheries. These studies provide a scientific basis for evaluating alternative hook configurations and fishing practices as mitigation measures.

In addition, authorised longline vessels are required to record and report interactions with marine turtles, and the information is incorporated into the fisheries monitoring and reporting system and furnished to the IOTC through the prescribed reporting mechanisms. FSI also undertakes fishery-independent exploratory surveys and monitors bycatch and interactions with protected species. Ministry of Environment, Forest and Climate Change, Government of India has released a National Marine Turtle Action Plan with the aim to conserve marine turtles and their habitats in India. Further, the bycatch of sea turtles in the Indian longline fishery was remarkably lower than those reported elsewhere (Varghese et al., 2010). However, during the reporting period, no interaction has been observed in the longline catches.

India has also implemented spatial and gear-based conservation measures in areas supporting important turtle nesting and aggregation. Coastal areas experiencing mass nesting and stranding of marine turtles are protected through applicable national and State legislation, with restrictions on fishing activities in designated protected areas. The implementation of conservation measures is supported by the concerned State Forest Departments and other enforcement agencies, including the Indian Coast Guard. Further, in several coastal States where important mass-nesting

sites occur, the use of Turtle Excluder Devices (TEDs) in trawl nets has been mandated to reduce turtle mortality arising from trawl fisheries.

7.6. National research programs on thresher sharks

The management measures under Resolution 12/09 apply to fishing vessels included in the IOTC Record of Authorised Vessels (RAV). However, India has undertaken studies on thresher sharks (*Alopias* spp.) through its national fisheries research programmes. The Fishery Survey of India (FSI) has been monitoring the occurrence and abundance of thresher sharks through its exploratory fishery surveys in the Indian EEZ and has also undertaken studies on their biological characteristics, including aspects relevant to understanding their population structure and life history. ICAR-CMFRI also collects species-specific information on thresher sharks through its regular fisheries landing-centre sampling and dedicated national shark research program. In addition, an Ecological Risk Assessment (ERA) of sharks in India's artisanal fisheries was undertaken jointly by scientists from CMFRI and FSI, providing further information on the vulnerability, distribution and fisheries interactions of shark species, including thresher sharks. These studies contribute to the national knowledge base required for understanding the distribution and ecology of *Alopias* spp. and can support the identification of areas of potential biological importance, including possible nursery habitats, in the Indian Ocean.

Table 5: Gear-wise nominal catch (tonnes) of tuna and allied resources from the coastal and oceanic fishery in India, 2025

Species/group	Gillnet	Longline	Hook and line	Ring net	Small purse seines	Gillnet-longline	Trawl	Pole and line	Trolling	Hand line	Beach Seine	Other gears	Total
Thunnus albacares	8528	216	11090	710	--	6165	5948	3395	2960	2351	--	293	41656
Katsuwonus pelamis	19114	242	6519	135	93	6337	1857	9141	1366	--	--	134	44938
Thunnus obesus	139	0	14	1340	--	02	424	76	40	48	--	--	2082
Marlins	2398	27	1236	--	--	7721	751	--	19	--	--	31	12182
Istiophorus platypterus	5804	0	3000	208	--	1835	1419	--	264	--	--	74	12604
Xiphias gladius	712	0	945	--	--	1224	213	--	--	35	--	35	3164
Pelagic sharks	3264	1	4603	30	--	5528	6061	--	--	--	--	1228	20715
Auxis rochei	4094	63	978	9148	1669	573	1688	--	--	--	69	691	18972
Thunnus tonggol	1097	0	8	4326	--	02	259	--	--	--	--	31	5722
Euthynnus affinis	10836	309	4977	65492	1586	4727	7685	678	707	--	85	301	97384
Auxis thazard	1791	200	938	26335	372	1562	1614	362	--	--	--	250	33424
Sarda orientalis	742	0	66	2	--	81	43	--	--	--	--	--	934
Scomberomorus commerson	10660	0	4743	16242	522	1179	18342	--	--	--	77	1147	52912
Scomberomorus guttatus	13530	0	350	1577	35	52	10861	--	--	--	--	1369	27774
Acanthocybium solandri	351	0	147	--	--	90	203	--	--	--	--	--	791
Others	2508	301	4809	47	--	7053	3726	377	2030	2139	--	906	23897
Total	**85567**	**1359**	**44420**	**125592**	**4278**	**44130**	**61094**	**14029**	**7387**	**4574**	**232**	**6489**	**399151**

8.0 Status of implementation of Scientific Committee recommendations and Resolutions of the IOTC relevant to the Scientific Committee

Res. No.	Resolution	Scientific requirement	CPC progress
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	- All five species of marine turtles reported from the Indian waters are protected under the law. - The authorised longliners regularly record and report interactions with marine turtles and this information is reported to the IOTC. - The Central Institute of Fisheries Technology is carrying out research on the use of circle hooks and the findings have been reported in the Journal of Fishery Technology (53 (2016): 284 – 289) and the Indian Journal of Fisheries (Vol. 60(1), 2013 Pp 21-27). - FSI also carries out research on the use of circle hooks and research findings have been published in the Journal 'Current Science' (Vol. 98, No. 10, Pp – 1378-1384 Varghese et al., 2010). -To create awareness, FSI also brings out popular articles in its in-house publications namely, Meena News and Bulletin of the Fishery Survey of India. -The entire stretch of the coastline where mass stranding of turtles takes place in India is protected through national and state legislations and no fishing activity is permitted to be carried out in such areas. Further, the Department of Forest and the Indian Coast Guard monitor the implementation of conservation measures for the protection of marine turtles. - The coastal states where mass nesting takes place have also made it mandatory to use Turtle Excluder Devices in the trawl nets.
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	The Indian authorized longline vessels are implementing this resolution and the same is reported to IOTC.
13/04	On the conservation of cetaceans	Paragraphs 7–9	The national legislation prohibits the capture and trade of marine mammals in Indian waters.
13/05	On the conservation of whale sharks (*Rhincodon typus*)	Paragraphs 7–9	The national legislation prohibits capture and trade of whale sharks in Indian waters.
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	The Wild Life (Protection) Act, 1972 and various orders issued by the Ministry of Environment, Forest and Climate Change and the Ministry of Commerce provide for conservation of shark species in Indian EEZ. Further, a National Plan of Action (NPOA) on Conservation and Management of Sharks is in force. The ICAR-CMFRI has prepared Non-Detrimental Findings (NDFs) for Oceanic whitetip, hammerhead sharks, manta rays, other Mobulids, thresher sharks, silky shark, Mako sharks and

Res. No.	Resolution	Scientific requirement	CPC progress
			bowmouth guitarfish (Zacharia et al. 2017; Kizhakudan et al., 2019a,b, 2022; Thomas et al., 2022a,b).
15/01	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–10	The authorized longline vessels are collecting the catch and effort data and providing the same to the IOTC on a regular basis.
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	The mandatory statistical reporting is carried out on a regular basis.
17/05	On the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 6, 9, 11	- The data collected from the authorised longlining vessels are submitted to IOTC to meet the reporting requirements. - The national legislation provided for the conservation of shark species, including landing of sharks with fin attached. -India has a national programme on elasmobranchs that includes stock assessment and conservation. A decision on India's participation in the proposed project will be taken after the details of the project are known.
18/02	On management measures for the conservation of blue shark caught in association with IOTC fisheries	Paragraphs 2-5	-Data is recorded and furnished to the IOTC -Data collection programmes are in place -Catches are being monitored domestically -Scientific research on blue sharks is being undertaken and results have been published (e.g., Varghese et al., 2017)
18/05	On management measures for the conservation of the Billfishes: Striped marlin, black marlin, blue marlin and Indo-Pacific sailfish	Paragraphs 7 – 11	India is adopting a number of management measures for conservation of fishery resources (including billfishes) in its seas, most important of which is annual ban on fishing for two months. Minimum legal size for capture is being strictly implemented in several States. Catches are being monitored and reported to the IOTC
18/07	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Paragraphs 1, 4	India is regularly reporting the fishery and other data in respect of all IOTC fisheries; including shark species caught in association with IOTC fisheries, and is working in collaboration with the IOTC Secretariat to improve the data collection for direct and incidental catches. India had submitted the zero/positive matrix by IOTC species as well as the most commonly caught elasmobranch species in the IOTC format while submitting the mandatory catch, effort and size data
19/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (*If not provided under Res 21/01 below*)	Paragraph 22	The provisions under this Resolutions do not apply on India
19/03	On the Conservation of Mobulid Rays Caught in	Paragraph 11	India has national sampling and research programmes, for all the fish caught, including Mobulid rays caught by

Res. No.	Resolution	Scientific requirement	CPC progress
	Association with Fisheries in the IOTC Area of Competence		artisanal fishery. The fishery and biology data are being collected at national as well as state (province) levels. The Giant manta (*Mobula birostris*) and Reef manta (*Mobula alfredi*) are included in Schedule I, while the Sicklefin devil ray (*Mobula tarapacana*) is included in Schedule II of the Indian Wildlife (Protection) Act, 1972 for ensuring the protection of these species.
21/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (*If not provided under Res 19/01 above*)	Paragraph 23	The provisions under this Resolutions do not apply to India
23/07	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	All authorized tuna longliners are covered by the observer programme. Further, the requirements for monitoring the artisanal fishing vessels landing at the landing sites are also carried out by the field samplers.
23/08	On electronic monitoring standards for IOTC fisheries	Paragraphs 3c	India had not established electronic monitoring system for tuna vessels.
25/06	On a regional observer scheme	Paragraph 12	In India, observers are placed on-board on all the authorized tuna longlining vessels.

9. LITERATURE CITED

Anon, 2011. Report of the Working Group for revalidating the potential of fishery resources in the Indian EEZ. Report submitted to the Dept. of Animal Husbandry Dairying and Fisheries, Ministry of Agriculture, Government of India. Pp. 69.

Anon, 2018. Report of the Working Group for revalidating the potential of fishery resources in the Indian EEZ. Report submitted to the Dept. of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India.

CMFRI, 2023. CMFRI Annual Report 2022-2023. Technical Report. CMFRI, Kochi.

CMFRI, 2020. CMFRI Annual Report 2017-2018. Technical Report. CMFRI, Kochi.

CMFRI, FRAEED, 2026. Marine Fish Landings in India 2025. Technical Report, CMFRI Booklet Series No. 47/2026. ICAR-Central Marine Fisheries Research Institute, Kochi.

FAO Fisheries and Aquaculture Department, 2009.Guidelines to reduce sea turtle mortality in fishing operations. Rome, FAO. 2009. 128pp.

FAO Fisheries and Aquaculture Department, 2018. Report of the Expert Workshop on means and methods for reducing marine mammal mortality in fishing and aquaculture operations, Rome, 20-23 March 2018. FAO Fisheries and Aquaculture Report No. 1231 FIAO/R1231 (En).

Government of India, 2025. Handbook on Fisheries Statistics, 2025., Department of Fisheries, Government of India.

Gulati, D. K., S. Ramachandran, H. D. Pradeep, L. Ramalingam, 2020. Standardization of hooking rate (hr) for Swordfish *(Xiphias gladius*) occurring around the Western Indian Ocean (Area 51) and Eastern Indian Ocean (Area57) based on survey data collected through FSI Surveys IOTC-2020-WPB18-19.

Kizhakudan, S.J., Zacharia P.U., Thomas S., Vivekanandan E. and Muktha M. 2015. CMFRI Marine Fisheries Policy Series -2; Guidance on National Plan of Action for Sharks in India. Central Marine Fisheries Research Institute, Kochi, pp. 1-102. ISBN ISSN 2394-8019.

Kizhakudan, S.J., Zacharia, P.U., Thomas, S., Najmudeen, T.M., Akhilesh, K.V., Muktha, M., Dash, S.S., Rahangdale, S., Nair, R.J., Purushottama, G.B., Mahesh, V., Ambarish, G.P., Manojkumar, P.P., Remya, L. and Wilson, L. 2019a. India Non-Detriment Finding (NDF) for silky shark, *Carcharhinus falciformis*, in the Indian Ocean. CMFRI Marine Fisheries Policy Series No.13/2019. CMFRI; Kochi, pp. 1-54.

Kizhakudan, S.J., Zacharia, P.U., Thomas, S., Najmudeen, T.M., Akhilesh, K.V., Muktha, M., Dash, S.S., Rahangdale, S., Nair, R.J., Purushottama, G.B., Mahesh, V., Ambarish, G.P., Manojkumar, P.P., Remya, L. and Wilson, L. 2019b. CMFRI Marine Fisheries Policy Series No.14; India Non-Detriment Finding (NDF) for thresher sharks, *Alopias* spp., in the Indian Ocean. CMFRI; Kochi, pp. 1-60.

Kizhakudan, S.J., Thomas, S., Purushottama, G.B., Muktha, M., Dash, S.S., Wilson, L., Najmudeen, T.M., Roul, S.K., Remya, L., Rahangdale, S., Mahesh, V., Akhilesh, K.V., Nair, R.J., Zacharia, P.U. and Gopalakrishnan, A. 2022. India Non-Detriment Finding (NDF) for bowmouth guitarfish *Rhina ancylostoma* in the Indian Ocean. CMFRI Marine Fisheries Policy Series No.22/2022 (22). ICAR- Central Marine Fisheries Research Institute, Kochi.

MPEDA, 2026. India's seafood export data 10 years. https://mpeda.gov.in/?page_id=438 .

Rohit, P., Abdussamad, EM, Koya KPS, Sivadas M. and Ghosh S, 2011. Tuna Fishery of India with Special Reference to Biology and Population Characteristics of Neritic Tunas Exploited from Indian EEZ. Central Marine Fisheries Research Institute, IOTC-2011-WPNT01-10.

Thomas, S., Kizhakudan, S.J., Mahesh, V., Remya, L., Rahangdale, S., Nair, R.J., Akhilesh, K.V., Najmudeen, T.M., Purushottama, G.B., Muktha, M. and Dash, S.S., Wilson, L., Subal Kumar, R., Zacharia, P. U. and Gopalakrishnan, A 2022a. CMFRI Marine Fisheries Policy Series No.19/2022: India Non-Detriment Finding (NDF) for Mako sharks, *Isurus* spp. in the Indian Ocean, 2022 to 2026. CMFRI Marine Fisheries Policy Series No.19/2022 (19). ICAR- Central Marine Fisheries Research Institute, Kochi.

Thomas, S., Kizhakudan, S. J., Remya, L., Rahangdale, S., Nair, R, J., Mahesh, V., Akhilesh, K. V., Muktha, M., Purushottama, G. B., Dash, S. S., Najmudeen, T. M., Wilson, L., Subal Kumar R., Zacharia, P. U. and Gopalakrishnan, A, 2022b. India Non-Detriment Finding (NDF) for Devil Rays *Mobula* spp. in the Indian Ocean, 2022 to 2024. CMFRI Marine Fisheries Policy Series (21). ICAR- Central Marine Fisheries Research Institute, Kochi.

Varghese S., Somvanshi, V.S. and Varghese, S. P., 2007. Bycatch of sharks and incidental catches of sea turtles in the long line fishery of Indian waters as observed during tuna resources survey. IOTC 2007-WPEB-13-rev.

Varghese S.P., Unnikrishnan N., Gulati DK and Ayoob AE, 2017. Size, sex and reproductive biology of seven pelagic sharks in the eastern Arabian Sea. Journal of the Marine Biological Association of the United Kingdom, 97 (1): 181–196.

Varghese S.P, Varghese S and Somvanshi V.S., 2010. Impact of tuna longline fishery on the sea turtles of Indian seas. Current Science, (10), 1378-1384.

Zacharia, P.U., Kizhakudan, S.J., Thomas, S., Manojkumar, P.P., Nair, R.J., Najmudeen, T.M., Purushottama, G.B., Muktha, M., Dash, S.S., Akhilesh, K.V. and Remya, L. 2017. CMFRI Marine Fisheries Policy Series No.6/2017: Non-Detriment Findings (NDF) for the export of Shark and Ray species listed in Appendix

II of the CITES and harvested from Indian waters. CMFRI Marine Fisheries Policy Series No.6/2017 (6). Central Marine Fisheries Research Institute, Kochi, pp. 1-102. ISBN ISSN 2394-8019

***