Ministry of Fisheries and Blue Economy
Federal Republic of Somalia

Somali National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2024

Prepared by:

Ministry of Fisheries and Blue Economy
Federal Republic of Somalia
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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 2024, final data for the 2023 calendar year must be provided to the Secretariat by 30 June 2024)	No
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 2024, preliminary data for the 2023 calendar year were provided to the IOTC Secretariat by 30 June 2024). **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 2024, final data for the 2023 calendar year must be provided to the Secretariat by 30 December 2024).	N/A
If no, please indicate the reason(s) and intended actions: Somalia has no industrial fishing fleet, such as longliners or purse seine vessels, operating under its flag. The country's fisheries can be categorized into three types: (a) small-scale fisheries, with vessels between 3–10 meters, typically made of glass-reinforced plastic or wood, operating in coastal waters; (b) semi-industrial fisheries, with vessels ranging from 12–23 meters, predominantly operated by local investors; and (c) industrial fisheries, which are exclusively operated by foreign vessels. In 2023, the Somali government renewed a fishing access agreement with the Chinese Overseas Fishing Association (COFA), granting fishing licenses to 21 COFA vessels to operate within Somalia's EEZ, targeting tuna and tuna-like species.	

Executive Summary

The Somali National Report to the Indian Ocean Tuna Commission (IOTC) Scientific Committee provides an in-depth analysis of Somalia's fisheries, focusing on data collection, fleet structure, and conservation initiatives. The report highlights Somalia's vast marine potential, underpinned by its long coastline and productive Exclusive Economic Zone (EEZ), which hosts abundant migratory pelagic species, especially tuna. Following civil unrest, Somalia's fisheries data was primarily inaccurate, misreported, and highly underestimated by the FAO/IOTC until recent national data collection efforts clarified the nation's actual catch levels.

Recent initiatives, led by the Fisheries Data Collection Working Group (FDCWG), have implemented a robust system to monitor artisanal fisheries. This includes the use of logbooks, an observer scheme, and port sampling across key landing sites to gather reliable data on catch composition and fishing effort. Enhanced training for data collectors and digital tools for recording has improved data accuracy and compliance with IOTC requirements.

Conservation of vulnerable species, such as sharks, marine turtles, and seabirds, is a priority under Somalia's new Fisheries Law, which prohibits harmful fishing practices and mandates safe handling and release protocols. The report also outlines future research programs on species such as mobulid rays and oceanic whitetip sharks, aiming to identify nursery areas and improve post-release survival rates. These efforts underscore Somalia's commitment to sustainable fisheries management and alignment with international conservation standards, enhancing its regional role in the IOTC area of competence.

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1. Background/General fishery information

Somalia's extensive coastline and Exclusive Economic Zone (EEZ) grant it significant potential in marine fisheries, particularly in high-demand pelagic species. Somalia's coastline, approximately 3,330 kilometers long, is the longest in continental Africa, and its EEZ, covering about 1,165,500 square kilometers, offers vast opportunities for fisheries expansion, especially in tuna and other valuable pelagic species[1]. This extensive marine territory positions Somalia as a key potential player in global fisheries, with prospects for economic growth and enhanced food security[2]. The productivity of Somali waters is largely driven by the Southwest monsoon, which triggers seasonal upwelling, bringing nutrient-rich waters to the surface. This nutrient influx supports abundant marine life and provides ideal conditions for commercial species such as tuna. Studies indicate that monsoon-driven upwelling around Somalia's EEZ is one of the region's most productive systems[3-7], sustaining high fish populations, especially for migratory pelagic species[8].

Civil unrest in the late 1990s halted national reporting, leading the FAO to estimate Somali fisheries catches, which remained largely unchanged over the decades[5]. Subsequent reconstructions aimed to clarify Somali catches, covering both domestic and foreign fishing activities from 1950 to 2015, using available data[3-6]. These studies found that small-scale catches were nearly 1.8 times higher than those reported by the FAO on Somalia's behalf[5].

Somalia's fisheries sector is mainly artisanal, with small-scale fishers operating traditional vessels nearshore, contributing around 120,000 metric tons annually. In contrast, foreign offshore industrial fleets, operating at greater scales and depths, yield approximately 60,000 MT, bringing the total annual fish catch to about 180,000 MT[5]. However, these foreign fleets often engage in IUU fishing, straining Somali fish stocks and complicating sustainable management[1]. Foreign vessels have often engaged in high impact fishing practices, including purse seining around Fish Aggregating Devices (FADs) for tuna species, strategically deploying these devices around Somalia's EEZ to drift into Somali waters. This practice enables foreign fleets to capture significant numbers of tuna stocks within Somali waters, subsequently transporting unaccounted quantities to the high seas. Such activities contribute to the depletion of tuna resources in Somalia's EEZ, impacting the sustainability of fish stocks and challenging Somalia's efforts to manage its marine resources effectively.

Additionally, foreign vessels, including those from Iran and Yemen, have long targeted species like tuna in Somali waters, frequently underestimating or underreporting their catches[3,5-6]. Somalia's limited resources and administrative challenges further delayed mandatory reporting to the IOTC, affecting fisheries development. To address these issues, the Somali government, with international support, has introduced programs to improve fisheries governance, build infrastructure, and enhance national data collection capacity. These initiatives focus on establishing monitoring systems to reduce IUU fishing and strengthening legal regulatory frameworks for sustainable practices. Capacity-building programs are also helping Somali fishers acquire skills for offshore operations, potentially increasing their catch rates and reducing reliance on foreign fleets.

Since 2018, Somalia has made substantial progress in developing a national fisheries data collection system aligned with IOTC protocols. This initiative began with a pilot program at two landing sites, which later expanded nationwide, establishing consistent data collection practices. The shift to digital data collection in 2021 improved accuracy and accessibility, while the creation of a centralized database in 2022 enabled better organization and transparency of fisheries data. By 2023, Somalia had established the Fisheries Data Collection Working Group (FDCWG) and implemented a catch reconstruction strategy to address historical data gaps. As shown in Table 5, these efforts have led to a steady increase in documented catch, with the overall annual catch rising from 49,000 metric tons in 2019 to 58,322 metric tons in 2023. This progress reflects Somalia's commitment to data-driven fisheries management.

2. Fleet structure

Table 1: Fleet Structure

Vessel Type	Vessel Length (Avg. in meters)	Propulsion Type	Main Gear Type
Volvo, Gacan, Leyla, Afdheer, Houri	7.6	Inboard and outboard motors	Floating gillnets, handlines
Volvo, Leyla, Gacan, Afdheer, Houri	8.0	Inboard and outboard motors	Floating gillnets, handlines, bottom longlines
Volvo, Gacan, Leyla, Houri	6.6	Inboard and outboard motors	Handlines, floating gillnets, bottom longlines
Volvo, Gacan	8.1	Inboard and outboard motors	Floating gillnets, bottom longlines
Volvo, Gacan	7.2	Inboard and outboard motors	Floating gillnets, handlines
Volvo, Gacan, Leyla, Afdheer	8.6	Inboard and outboard motors	Handlines, floating gillnets

Table 2: Number of vessels operating in the IOTC area of competence, by gear type and size class

Year	Inboard Engine Vessels	Outboard Engine Vessels	Primary Gear Types
2017	1,660	1,765	Bottom set gillnet, longline, floating gillnet, handline
2018	2,090	1,804	Bottom set gillnet, longline, floating gillnet, handline
2019	3,300	2,210	Floating gillnet, longline, floating gillnet, handline
2020	4,077	3,407	Bottom set gillnet, longline, floating gillnet, handline, trap
2021	5,237	6,657	Bottom set gillnet, handline, horizontal longline, floating gillnet
2022	5,793	7,159	Floating gillnet, handline, horizontal longline, floating gillnet
2023	5,819	7,211	Floating gillnet, handline, horizontal longline, floating gillnet

3. Catch and effort (by species and fishery)

The Fisheries Data Collection Working Group (FDCWG), established in August 2019, continued with Phase 2 of the nationwide catch and effort data collection project in December 2021 across seven landing sites. This project represents the first large-scale data collection initiative of its kind in Somalia, aimed at enhancing fisheries data accuracy and supporting sustainable management.

Data were collected for 31 unique categories of fish, including species-level data for all species managed by the IOTC. Additionally, data for seven other species-level categories, three family-level categories, and three higher-taxa categories were recorded, contributing to a comprehensive dataset. To date, the database includes records of over 38,000 fish, with weight and length measurements for more than 9,000 fish and effort data documented for over 1,790 vessel trips. This report presents preliminary findings on national catch composition.

The database underwent validation to ensure quality, completeness, and accuracy in data entry. The next steps involve a validation workshop for all FDCWG members to establish consensus on the data collected during this phase. Currently, the data is not sufficiently comprehensive to allow extrapolation to nationwide estimates, highlighting the need for continued data collection to improve representativeness. This data spans from November 2023 to June 2024, as outlined in the report.

Table 3: Catch composition of fish types by number at each site and total for all sites combined.
A total of 58,322 fish were identified and counted during Phase 3 (Table 3).,

Fish type	**Bosaso**	**Hobyo**	**Adale**	**Mogadishu**	**Merca**	**Kismayo**	**Total**
Yellowfin tuna	47.5%	5.6%	4.3%	13.5%	58.3%	16.7%	18.8%
Grouper		11.6%	9.8%	5.5%	0.3%	37.6%	9.5%
Jacks	2.6%	21.7%	3.3%	4.1%	3.5%	3.3%	9.2%
Skipjack tuna	5.9%		2.5%	16.8%	0.6%	0.1%	9.2%
Longtail tuna	24.3%	3.2%		0.3%			5.8%
Talang queenfish	0.9%	9.8%	1.5%	6.9%		0.9%	5.7%
Kawakawa	8.9%	7.5%	3.6%	4.0%	0.8%	0.3%	5.6%
Narrow-barred Spanish Mackerel	4.7%	3.0%	17.8%	6.2%	5.9%	0.0%	4.8%
Lobsters	0.3%	11.4%	13.3%			1.1%	4.3%
School shark	0.1%	3.3%	1.6%	6.6%		9.0%	4.1%
Bigeye tuna		4.7%	16.7%	1.1%		10.2%	3.5%
Indo-Pacific king mackerel		1.1%		9.0%	0.1%	0.8%	3.4%
Other Sharks	0.1%	0.6%	4.8%	6.0%	4.8%		2.5%
Snapper		4.7%	1.4%	0.2%		7.9%	2.4%
Emperors		7.0%		0.2%		0.9%	2.3%
Mahi-mahi	0.2%	0.2%	1.3%	2.7%	3.2%	1.4%	1.3%
Indo-Pacific sailfish		1.0%	2.8%	1.7%	2.3%	0.2%	1.1%
Somali spotted seerfish (mackerel)	0.1%	1.2%		1.8%	1.4%		1.0%
Wahoo	1.4%	0.0%	2.7%	1.7%	1.0%		1.0%
Other demersal fishes		1.3%	5.4%	0.1%	9.0%		0.9%
Rays and Skates	0.0%	0.0%	0.8%	2.3%		0.8%	0.9%
Swordfish			2.4%	1.4%	6.8%	1.0%	0.9%
Frigate tuna				2.2%			0.7%
Catfish	0.0%	0.0%	0.0%	1.5%		0.8%	0.6%

Black marlin	0.8%	0.5%	0.3%	0.2%		2.0%	0.6%
Blue marlin	1.5%	0.4%	0.0%	0.0%		0.9%	0.5%
Hammerhead Shark	0.1%	0.0%	1.0%	0.8%	0.5%	0.8%	0.4%
Other pelagic fishes	0.0%		0.2%	1.0%	0.1%	0.0%	0.4%
Shrimps	0.3%	0.0%	0.4%	0.6%	0.6%	0.6%	0.3%
Ladyfish			0.3%	0.6%		0.1%	0.2%
Crabs			1.0%			1.7%	0.2%
Striped marlin		0.2%		0.0%		0.8%	0.1%
Blue shark	0.2%		0.3%	0.0%	0.8%		0.1%
Mako shark	0.0%		0.1%	0.2%			0.1%
Cobia	0.1%	0.1%	0.0%	0.1%			0.1%
Albacore				0.2%			0.1%
Halfbeak			0.3%				0.0%
Bullet tuna			0.0%	0.0%			0.0%

Figure 1: Catch composition at each location by number of fish.

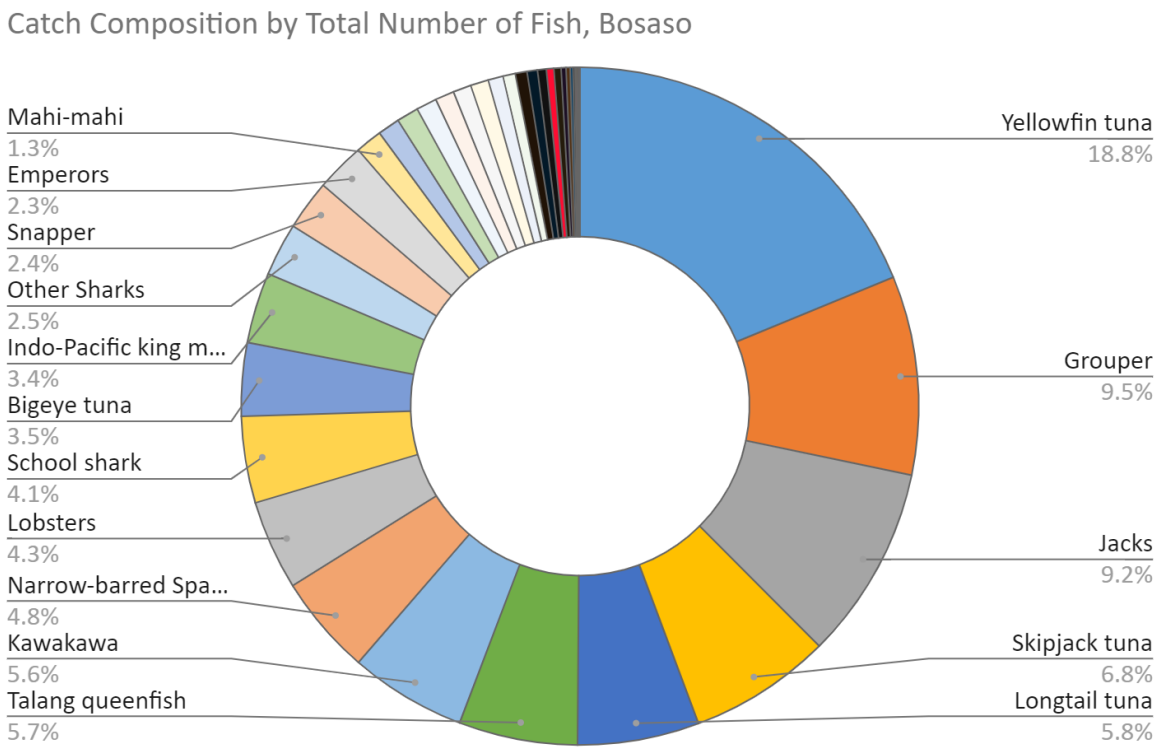


Table 4: Types and frequencies of fishing gear used by vessels sampled at six landing sites (November 2023 to June 2024)

Table 4 highlights on fishing gear usage across six major Somali landing sites shows a significant increase in the use of handlines, reflecting a shift from the previously dominant floating gillnets. This transition is largely due to local fishers' preference for higher-quality tuna, as handlines allow for more selective and sustainable catches that meet market demand for premium tuna grades. Currently, floating gillnets remain common, with 981 vessels using them, but handline usage has grown considerably, totaling 885 vessels. This shift underscores Somalia's evolving fishing practices and its focus on quality-driven, sustainable methods.

Fishing Gear Type	Bosaso	Hobyo	Adale	Mogadishu	Merca	Kismayo	**Total**
Floating Gillnet	227	159	108	143	261	83	**981**
Handline	165	78	117	120	286	119	**885**
Bottom Longline	0	2	86	114	18	2	**222**
Bottom Gillnet	5	34	57	17	0	9	**122**
Horizontal Longline	0	9	46	6	0	3	**64**
Other	2	0	1	0	0	3	**6**
Bully net and tickler	1	1	3	0	0	0	**5**
Pots and drums	1	0	2	0	0	0	**3**
Total	**420**	**301**	**283**	**219**	**565**	**300**	**2288**

Table 5. Annual catch and effort by fishery and primary species in the IOTC area of competence (**November 2023 to June 2024**)

Year	Yellowfin Tuna	Skipjack Tuna	Bigeye Tuna	Longtail Tuna	Grouper	School Shark	Lobsters	Jacks	Other	Total
2019	8,049	6,500	2,800	700	2,100	5,900	2,500	6,000	14,500	49,049
2020	8,400	6,700	2,900	720	2,150	6,000	2,550	6,050	16,230	51,700
2021	8,673	6,579	2,850	706	2,108	5,997	2,511	6,074	15,700	51,198
2022	9,290	6,900	3,000	740	2,200	6,100	2,600	6,150	16,010	52,990
2023	10,965	5,100	4,100	760	2,250	6,200	2,700	6,200	20,047	58,322

Table 6. Total catch per year (mt) for each landing site of tuna and tuna-like species (**November 2023 to June 2024**)

Landing Site	Catch per Year (Metric Tons)	Primary Species Composition
Bosaso*	2,553	Yellowfin Tuna, Longtail Tuna, Jacks
Hobyo	12,114	Yellowfin Tuna, Jacks
Adale	2,134	Jacks, Lobsters, Yellowfin, Bigeye Tuna,
Mogadishu	20,463	Yellowfin Tuna, Skipjack Tuna, Jacks
Merca	3,316	Yellowfin Tuna,
Kismayo	7,869	School Shark, Kawakawa
Total	**48,449**	

*This is not included other species focusing only the tuna, Jacks, School Shark and billfish species

Figure 1. Historical annual catch for the national fisheries by primary species, for the IOTC area of competence for the entire history of the fisheries.

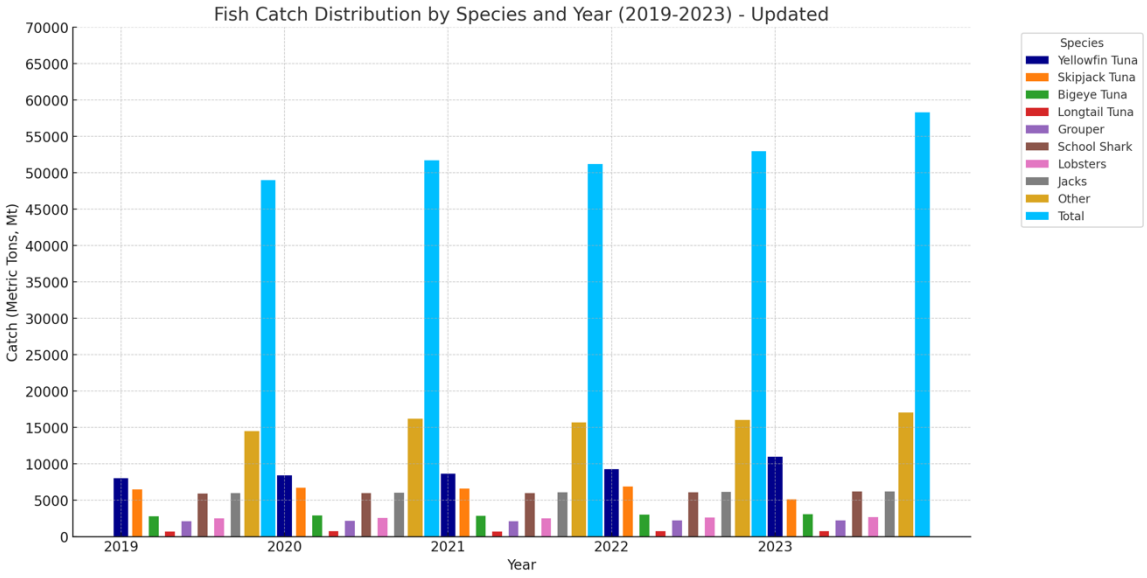


Figure 2. Map of the distribution of fishing effort, by national fishery in the IOTC area of competence

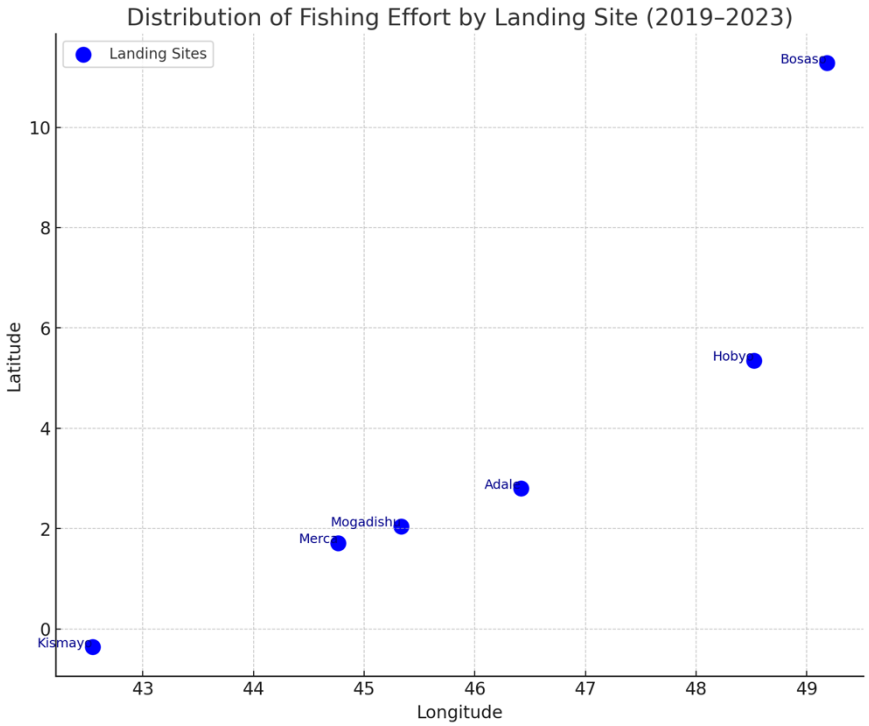
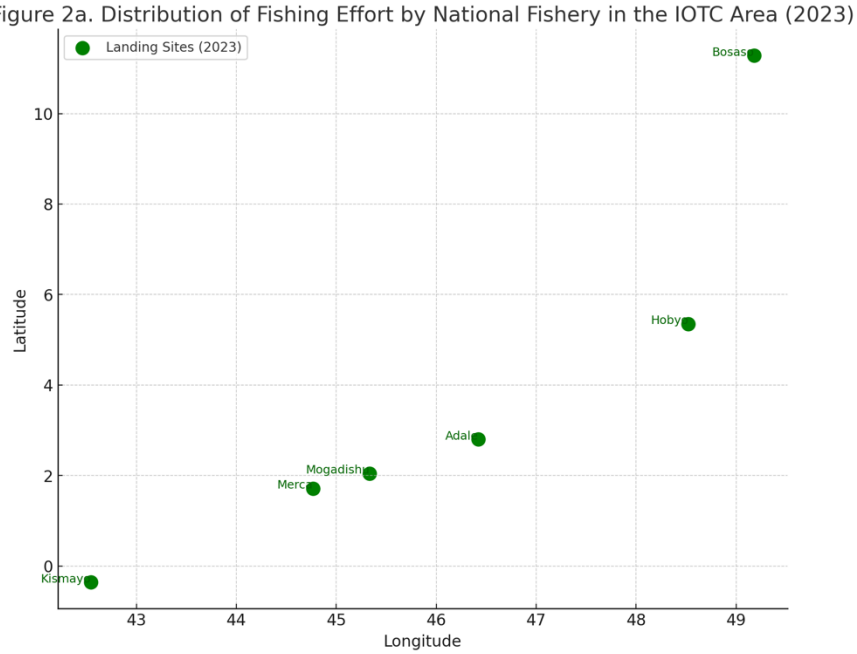


Figure 3. Map of distribution of fishing catch, by species for the national fisheries, in the IOTC area of competence (most recent year e.g., 2023).



4. Recreational fishery

The Ministry of Fisheries and Blue Economy in Somalia is set to commence efforts to formalize and regulate recreational fishery activities within the IOTC area of competence. Over the past three years, several recreational fishing initiatives have taken root along Somalia's coastline, offering opportunities for sustainable tourism and community engagement. However, these activities have not yet been officially documented, and no formal record-keeping system exists for recreational catches.

To address this gap, the Ministry plans to implement a structured framework for data collection and management within the recreational fishing sector. This will include documenting catch volumes, species diversity, and fishing methods, which will be essential for assessing the sector's impact on local fish stocks and guiding regulatory measures. By establishing an official record, the Ministry aims to support sustainable practices, enhance fishery management, and foster the growth of recreational fishing as a valuable economic and cultural asset for Somalia.

5. Ecosystem and bycatch issues

Somalia is committed to reducing the ecological impact of its fishing practices and enhancing the conservation of marine resources within its EEZ. The Ministry of Fisheries has introduced eco-friendly practices and new legal frameworks, particularly in updating the Law of Fisheries Management and Development - N0.008 2023, to mitigate bycatch and protect ecologically vulnerable species. The following areas of focus address critical ecosystem and bycatch issues within the national fisheries:

5.1 Sharks

Somalia has taken significant steps toward the conservation of sharks through the National Plan of Action (NPOA) for Sharks. This plan, once finalized, will be the first in Somalia to establish guidelines for sustainable shark management, banning the targeted fishing of endangered shark species by artisanal fishers. Traditional shark fishing is a longstanding practice in Somali waters, primarily for fins and meat, with products fully utilized

and exported to neighboring countries. The updated fisheries law also prohibits the removal of shark fins, with strict penalties for any violation, including on-board storage restrictions.

5.1.1. NPOA sharks

The National Plan of Action for Sharks (NPOA-Sharks) serves as a framework to enhance shark conservation within Somali waters. Somalia's Fisheries Law enforces restrictions on shark fishing, including a ban on the removal and trade of shark fins and strict measures to prevent waste by ensuring full utilization of the shark carcass. The NPOA-Sharks would bolster these legal standards by establishing more detailed guidelines for managing shark populations, reducing bycatch, and preserving endangered species, aligning with international best practices for sustainable fisheries.

5.1.2. Blue shark

In compliance with *IOTC Resolution 18.02*, Somalia is obligated to report annually on the measures taken domestically to monitor Blue Shark catches. Somalia's New Fisheries Law (N0.008 2023) mandates vessels to release unintentionally caught Blue Sharks and prohibits practices that contribute to unsustainable harvests. Monitoring systems, including e-MARIS, are used to document Blue Shark catches (requirement 6.15: ActionsBlueShark CoC22cq). The Ministry of Fisheries ensures alignment with the IOTC to sustainably manage Blue Shark populations through comprehensive data collection and reporting systems.

5.2 Seabirds

Somalia currently has no national longline fleet, which limits direct interactions with seabirds within the IOTC area of competence. However, 21 foreign longliners, primarily Chinese-flagged vessels licensed to operate in the EEZ, target tuna and tuna-like species. The Ministry of Fisheries has reminded the flag states of these vessels of their obligations to adopt seabird conservation practices as mandated by *IOTC Resolution 12/06* on reducing incidental seabird bycatch in longline fisheries.

Despite the absence of an official National Plan of Action (NPOA) for Seabirds, Somalia recognizes the importance of seabird conservation and mitigation measures. To ensure alignment with international standards, Somalia requires foreign-licensed vessels to employ seabird bycatch mitigation techniques when operating in Somali waters south of 25˚S. These measures include using bird-scaring lines, weighted lines, and setting lines at night to reduce the likelihood of seabird bycatch. Additionally, Somalia plans to enhance data collection and analysis for seabird interactions through collaboration with the IOTC's Regional Observer Scheme (ROS), which monitors and reports seabird interactions on authorized vessels. These records are submitted to the Secretariat as part of the IOTC mandate under form 1DI for authorized vessels.

Additional Considerations
To further support seabird conservation, Somalia is exploring options to establish its NPOA-Seabirds, which would enhance national strategies and provide structured guidelines on seabird mitigation and recovery plans. Key components would include:

1. **Documentation of Seabird Interactions:** Partnering with international agencies to improve data reliability and quality for monitoring seabird bycatch incidents.
2. **Implementing Mitigation Techniques:** Training foreign vessel operators on effective seabird conservation practices, such as bird-scaring lines and night setting.
3. **Enforcing Compliance with Conservation Standards:** Strengthening regulations to ensure all foreign-flagged vessels operating within Somali waters comply with existing conservation measures.

5.3 Marine Turtles

Somalia has established regulatory measures to protect marine turtles in compliance with both national laws and IOTC requirements. The Fisheries Law **(N0.008 2023)** and the subsequent fisheries law for the management, development, and sustainable use of fisheries have strict guidelines to ensure the conservation of marine turtles within Somali waters.

The **key national strategies** outlined in the Fisheries Law include:

- Prohibitions on Harm: No individual is allowed to fish, harm, kill, or trade marine turtles. This provision aims to protect turtle populations from direct exploitation.
- Safe Fishing Gear Practices: Operators of vessels within Somali waters are required to use and dispose of fishing gear responsibly to prevent entanglement or other harmful impacts on marine turtles.
- **Prohibition of Net Encirclement**: The law prohibits setting nets around turtles to prevent intentional trapping. If a turtle is accidentally caught, the operator must release it immediately and follow any additional steps outlined in international conservation measures.
- **Protection of Nesting Zones**: The Ministry must authorize any activity in known nesting zones, restricting construction or research activities that could disrupt turtle breeding sites.

The *IOTC Resolution 12/04* mandates that CPCs submits detailed reports on the interactions between fisheries and marine turtles. Although interactions between turtles and Somali artisanal fishers are documented, the data is still being validated for comprehensive analysis. Additionally, Somalia collaborates with the IOTC Scientific Committee to report successful mitigation efforts, addressing challenges such as nesting site degradation and marine debris ingestion by turtles.

Somalia participates by collecting and reporting data on marine turtle interactions through the Regional Observer Scheme (ROS), submitted via form 1DI to the IOTC Secretariat. This initiative supports Somalia's commitment to sustainable marine ecosystems while aligning national efforts with regional conservation standards.

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

Under the recently adopted **Somalia Fisheries Law No. 008 (2023)**, Somalia has taken steps to ensure the conservation of various ecologically significant species such as cetaceans, mobulid rays, and whale sharks. This law reinforces Somalia's commitment to sustainable fisheries and environmental protection through specific prohibitions and guidelines aimed at safeguarding vulnerable marine species.

Key National Strategies:

1. **Prohibition of Harmful Fishing Practices**: The law prohibits fishing practices that can harm these species, including the use of explosives, poison, and other destructive fishing methods. It also restricts certain gear types and activities known to impact non-target species, emphasizing the need for sustainable fishing practices.
2. **Protection of Habitat**: To protect critical habitats of cetaceans, rays, and whale sharks, the Fisheries Law **No. 008 (2023)** includes provisions to safeguard mangroves, coral reefs, and other essential habitats. By protecting these areas, the law aims to preserve the ecosystems that support these species, ensuring a balanced marine environment.
3. **Mitigation of Bycatch and Non-Target Species Interaction**: While Somalia does not yet have a specific National Plan of Action (NPOA) for these species, the Fisheries Law **No. 008 (2023** emphasizes the importance of mitigating bycatch and reducing interactions with non-target species. Fisheries authorities are tasked with monitoring bycatch and promoting the use of

bycatch reduction technologies to minimize accidental capture of cetaceans, mobulid rays, and whale sharks.

4. **Data Collection and Collaboration**: The Fisheries Law encourages data collection on non-target species and supports collaborations with international organizations to share data and align with global conservation strategies. Somalia's Ministry of Fisheries is working to improve data accuracy on the incidental capture of these species, enabling better-informed conservation policies.
5. **Public Awareness and Education**: Recognizing the importance of awareness, the Fisheries Law mandates educational programs aimed at informing the fishing community about the ecological value of species like cetaceans, rays, and whale sharks. These programs promote sustainable fishing practices and foster a culture of conservation among fishers and coastal communities.
6. Finally, Somalia aims to reduce the impact of its fishing activities on ecologically significant species, aligning with international conservation goals and supporting biodiversity within its waters. These efforts contribute to a more sustainable and ecologically responsible approach to fisheries management in the IOTC area of competence.

6. National data collection and processing systems

6.1. Logsheet data collection and verification

In Phase 3, the electronic form from Phase 2 was adapted to include new questions on foreign vessel activity and bycatch. While most of the original questions remained unchanged, the additions aimed to expand the scope of data collected. Questions on foreign vessel activity addressed the presence and practices of non-Somali vessels in Somali waters, assessing their impact on local fisheries and compliance with regulations. Bycatch questions focused on the unintentional capture of non-target species, providing insights into fishing efficiency and sustainability. These updates make the Phase 3 data collection more comprehensive, capturing ecological and regulatory factors alongside core catch data.

The **logsheet data collection system** in Somalia is a cornerstone of national fisheries management, designed to ensure consistent and accurate records of fishing activity. Initiated by the **Fisheries Data Collection Working Group (FDCWG)** in August 2019, the logsheet system aims to standardize data collection practices across the country's fisheries. This system was notably expanded during **Phase 3** of the data collection project, which began in **November 2023** and focused on six key landing sites: Bosaso, Hobyo, Adale, Mogadishu, Merca, and Kismayo.

Logsheets capture essential information for each fishing trip, including details on species caught, catch volume, fishing effort (such as hours fished and gear used), and location. The standardized format, developed by the FDCWG, aligns with IOTC requirements and international best practices, ensuring uniformity across all landing sites and enabling reliable comparisons. Compliance with the logsheet system is mandatory for all registered fishers, with enforcement by local fisheries authorities at each site.

To maintain data integrity, the logsheet system incorporates a multi-level verification process. Data enumerators perform preliminary checks at the collection stage to ensure completeness and accuracy, and then submit the logsheets to the Fisheries Data Management Unit. There, additional verification steps are conducted, including cross-referencing with observer reports and GPS data to validate fishing locations and effort. Any discrepancies are resolved through follow-up interviews with fishers or spot-checks at landing sites.

Somalia's data management infrastructure supports both paper and electronic systems. Data from paper logsheets is digitized using **KoboToolbox**, enabling electronic submission to a centralized

database and allowing for **real-time data analysis**. The digital system ensures data security, facilitates retrieval and aggregation, and enables the Ministry of Fisheries to efficiently generate reports and insights for decision-making and compliance with IOTC requirements.

Since its implementation, the logsheet system has created a valuable dataset on catch composition and fishing effort, essential for national fisheries management. Looking ahead, Somalia aims to incorporate electronic logbooks for semi-industrial and industrial vessels, which will enhance data accuracy and assist for Somalia to establish national fisheries catch reconstruction. There are also plans to extend the logsheet system's coverage, including additional landing sites and capturing more detailed data on artisanal fishing practices, which are significant to Somali fisheries. Finally, establishing this comprehensive logsheet system, Somalia has bolstered its ability to monitor fishing within its Exclusive Economic Zone (EEZ), promoting sustainable management, accountability, and alignment with international conservation standards.

6.2. Observer scheme

In recent years, Somalia has made substantive improvements to its **Observer Scheme** for artisanal fisheries, enhancing monitoring capabilities and data quality, especially within its Exclusive Economic Zone (EEZ). While there are no Somali-flagged vessels of or above 24 meters operating beyond the Somali EEZ—and, therefore, no observer program for such vessels—the Ministry of Fisheries has focused on strengthening the artisanal observer program with several key initiatives:

1. **Onboard Observer (OBB) Program**: Although the OBB program for licensed longliners fishing in Somali waters is still in planning stages due to financial and logistical constraints, the Ministry has shown commitment to advancing this initiative. With support from the FAO, Somali observers have been trained since 2015 to monitor licensed longliners, providing crucial data on tuna catches and interactions with species managed by the IOTC.
2. **Landings Monitoring Program**: The Ministry of Fisheries introduced an observer scheme to monitor fish landings, addressing the limitations of at-sea monitoring by focusing on landing sites. This program enables the Ministry to gather accurate data on artisanal catches, contributing to better fishery management and sustainable practices. This observer program covers more than 20% in the national landing sites.
3. **Enhanced Training and Data Collection**: The Fisheries Data Collection Working Group (FDCWG) has led efforts to improve data collection. This includes expanding the **training of data collectors**, emphasizing species identification, and focusing on IOTC-managed species. Data forms have been revised for greater detail, and special attention has been paid to selecting representative sampling areas, ensuring data quality and comprehensiveness.
4. **Sampling and Species Identification Improvements**: Recognizing the need for reliable data, the Ministry has invested in improving sampling methodologies and training observers in species identification. This enhanced focus ensures more accurate documentation of species, contributing to regional fisheries management and compliance with IOTC standards.
5. These initiatives represent progress for Somalia's observer program, demonstrating the country's commitment to improving data collection, compliance, and sustainable fisheries management despite financial and capacity challenges.

6.3. Port sampling programme

The **Port Sampling Program** in Somalia, conducted by the Fisheries Data Collection Working Group (FDCWG), was implemented as part of Phase 3 of the national fisheries data collection initiative. The goal of this program is to systematically monitor and document fish catch, effort, and species composition at key landing sites. During Phase 3, data were collected from six primary coastal locations: Bosaso, Hobyo, Adale, Mogadishu, Merca, and Kismayo.

The port sampling approach includes the following key components:

1. **Sampling Protocols**: Each landing site was equipped with two enumerators supervised by a Landing Site Data Collection Coordinator. These teams used standardized protocols and electronic data forms to ensure consistency across all locations. The data collected included fishing effort data (e.g., vessel type, gear type, crew size) and detailed species-level catch data.
2. **Data Collection Tools**: Data collectors utilized KoboToolbox for real-time data entry, which feeds into a centralized Google Sheets database accessible by fisheries management teams. This system allows for efficient data analysis, monthly reporting, and tracking across sites, enabling rapid responses to emerging patterns in catch and effort.
3. **Sampling Frequency and Coverage**: Data were gathered bi-weekly at each site, capturing over 1,790 fishing trips and providing a representative view of fishing activities throughout the Somali coast. This involved identifying and counting 60,532 individual fish, with measurements and weight recorded for 16,524 of them. This consistent sampling across major landing sites improves the accuracy of national catch estimates and allows for the tracking of seasonal patterns and species composition.
4. **Frame Survey Integration**: In addition to catch data, a frame survey was conducted at each landing site to assess the infrastructure, vessel types, and fishing activities. This survey included information on fishing fleet size, vessel types, gear usage, and other site-specific variables. The frame survey provides critical contextual data to complement the port sampling program and supports more precise annual catch estimates for each location.
5. Workshops were held to train data collectors and coordinators in accurate data collection, species identification, and database management, ensuring high-quality data. Regular review workshops were conducted to refine methodologies and update data collectors on any protocol adjustments, strengthening the overall capacity of the program.

Through this comprehensive approach, Somalia's Port Sampling Program has significantly improved its fisheries data collection capabilities, contributing valuable insights into national fishery trends, and aiding in the sustainable management of Somali marine resources.

Table 6. Number of vessel trips or vessels active monitored, by species and fishery.

Species/Fishery	Bosaso	Hobyo	Adale	Mogadishu	Merca	Kismayo	Total
Yellowfin Tuna	47.5%	5.6%	4.3%	13.5%	58.3%	16.7%	18.8%
Grouper	-	11.6%	9.8%	5.5%	0.3%	37.6%	9.5%
Jacks	2.6%	21.7%	3.3%	4.1%	3.5%	3.3%	9.2%
Skipjack Tuna	5.9%	-	2.5%	16.8%	0.6%	0.1%	6.8%
Longtail Tuna	24.3%	3.2%	-	0.3%	-	-	5.8%
...	...	...	...	...	...	...	...
Total (All Species)	312 trips	291 trips	323 trips	318 trips	326 trips	220 trips	1790 trips

Table 7. Number of fish measured, by species and fishery.

Species		**Bosaso**	**Adale**	**Mogadishu**	**Merca**	**Kismayo**	**All catch (without Hobyo)**
Yellowfin tuna	n	1275	68	848	724	198	**3113**
	% >Lm	87%	89%	94%	88%	79%	**87%**
Bigeye tuna	n	0	287	66	0	127	**480**
	% >Lm	NA	82%	75%	NA	69%	**75%**
Kawakawa	n	350	20	205	13	14	**602**
	% >Lm	100%	100%	100%	54%	100%	**99%**
Skipjack tuna	n	246	15	514	8	4	**787**
	% >Lm	100%	93%	98%	100%	100%	**99%**
Longtail tuna	n	1053	0	48	0	0	**1101**
	% >Lm	100%	NA	100%	NA	NA	**100%**
Narrow-barred Spanish mackerel	n	331	330	324	90	1	**1076**
	% >Lm	97%	99%	77%	93%	100%	**91%**
Indo-Pacific king mackerel	n	0	0	179	1	19	**199**
	% >Lm	NA	NA	99%	100%	89%	**98%**
Wahoo	n	116	49	173	15	0	**353**
	% >Lm	98%	100%	49%	93%	NA	**74%**
Talang queenfish	n	29	31	188	0	10	**258**
	% >Lm	86%	81%	64%	NA	100%	**70%**
Mahi-mahi	n	27	25	282	47	28	**409**
	% >Lm	100%	100%	100%	100%	89%	**99%**

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

Somalia has implemented several domestic actions aimed at monitoring catches and managing fisheries to ensure the sustainable exploitation and conservation of **Striped Marlin, Black Marlin, Blue Marlin,** and **Indo-Pacific Sailfish**, in compliance with *IOTC Resolution 18.05*, **paragraph 9**. The following measures outline Somalia's approach:

Data Collection and Monitoring: Through the Fisheries Data Collection Working Group (FDCWG), Somalia has established a comprehensive system for collecting catch data at major landing sites, focusing on species composition, fishing effort, and gear type. Observers and data enumerators are stationed across landing sites to record catch data for billfish species, including Striped Marlin, Black Marlin, Blue Marlin, and Indo-Pacific Sailfish. This data is recorded in standardized forms and is regularly verified to ensure accuracy.

Logsheet and Reporting Requirements: Somalia mandates that fishers, particularly those operating in high-activity areas, complete logsheets detailing their catches, including billfish species. This logsheet data is submitted to the central Fisheries Data Management Unit, where it is analyzed and reported. Catch data on these species is also included in the **e-MARIS application** (requirement number 6.16 ActionsBillfish CoC22cq) to fulfill reporting obligations to the IOTC Scientific Committee.

Seasonal and Gear Restrictions: Somalia's fisheries law includes restrictions on specific fishing gears that may disproportionately impact billfish species. Gear regulations are enforced to reduce bycatch of Marlin and Sailfish, while seasonal restrictions are considered to avoid peak spawning periods, aligning with conservation goals.

Observer Program: Trained observers monitor landings and bycatch at key sites, ensuring compliance with species-specific regulations. Observers document fishing practices, catch composition, and any interactions with billfish, allowing the Ministry to assess the effectiveness of conservation measures and compliance with IOTC standards.

Capacity Building and Training: The Ministry of Fisheries provides training to local fishers on species identification, bycatch reduction, and sustainable fishing practices. This training is designed to foster awareness about the ecological importance of billfish and ensure that fishers comply with conservation measures.

Through these initiatives, Somalia is committed to sustainable management of Striped Marlin, Black Marlin, Blue Marlin, and Indo-Pacific Sailfish. Data collected and reported through e-MARIS helps monitor stock health and supports Somalia's adherence to international conservation standards, promoting the long-term sustainability of billfish populations in Somali waters.

6.5. Gillnet observer coverage and monitoring

In compliance with *IOTC Resolution 19.01*, paragraph 22, Somalia has adjusted its monitoring approach to reflect the shift from gillnet to primarily handline fishing within its artisanal fisheries. Although gillnet usage has decreased, some artisanal fishers still employ gillnets, and the Ministry of Fisheries is working to ensure responsible practices and effective data collection.

With the reduction in gillnet usage, Somalia's observer coverage for gillnet fishing is now concentrated on specific artisanal sites where gillnets are still in operation. Observers at these locations monitor catch composition, fishing effort, and bycatch, providing insight into gillnet activities that persist within Somali waters.

Recognizing the transition to handline fishing, Somalia has expanded its monitoring program to include this gear type. Handline observers are trained to document species composition, fishing practices, and interactions with non-target species, supporting sustainable management of the growing handline fishery.

To supplement observer data, the Ministry uses shore-based sampling and community-based monitoring at key sites. These approaches allow Somalia to gather data on artisanal gillnet fishing while prioritizing resources for the expanding handline sector.

All data collected from both gillnet and handline fisheries is verified by the Fisheries Data Collection Working Group (FDCWG) and reported to the IOTC Scientific Committee. Ongoing training programs equip data collectors and community monitors with skills in species identification and bycatch monitoring, ensuring high-quality data.

6.6 Sampling plans for mobulid rays

In compliance with *IOTC Resolution 19.03*, **paragraph 11**, Somalia has acknowledged the need to monitor mobulid rays catches within its artisanal and subsistence fisheries. Although Somalia currently lacks a dedicated sampling plan for mobulid rays, the **Ministry of Fisheries** has initiated precautionary management measures to protect these species.

Somalia mandates that all fishing vessels, except those engaged in subsistence fishing, are prohibited from intentionally catching mobulid rays. Fishers are required to release any live mobulid rays caught incidentally back into the water, ensuring minimal harm to these vulnerable species. This precautionary approach serves to protect mobulid rays until a comprehensive sampling plan is implemented.

While the current survey methods of the **Fisheries Data Collection Working Group (FDCWG)** do not include specific provisions for mobulid rays, Somalia is actively revising its data collection protocols. New sampling survey forms are being updated to explicitly include fields for mobulid rays, enabling data collectors to separate and identify these species accurately. This revision aligns with Somalia's commitment to monitoring mobulid rays in line with IOTC requirements.

Somalia intends to collaborate with the IOTC Secretariat to develop a robust sampling plan for mobulid rays. This plan will include scientific and operational rationales for effective monitoring and will be included in national scientific reports to the IOTC Scientific Committee. The Committee's feedback on the sampling methodology will guide Somalia's approach to data collection on mobulid rays.

Through these steps, Somalia is working towards establishing a comprehensive sampling plan that aligns with international standards for the conservation of mobulid rays. In the interim, the precautionary release requirement and planned updates to data forms underscore Somalia's commitment to the sustainable management of these species.

7. National research programs

As part of Somalia's commitment to sustainable fisheries management and international reporting obligations, the country has implemented various national research programs aimed at enhancing data accuracy, conservation practices, and fisheries management within the **IOTC area of competence**. These programs support Somalia's ongoing efforts to align with IOTC standards and contribute valuable data for regional assessments.

Artisanal Fisheries Development and Management Program: As artisanal fisheries are central to Somalia's fishing sector; this program is aimed at improving management and sustainability within the sector. By collecting detailed catch data and training fishers in sustainable practices, the program supports efforts to transition from gillnet to handline fishing. These changes reduce bycatch and environmental impacts, with the data feeding into IOTC reports on artisanal fishing practices and conservation measures.

Data Collection and Observer Program: Somalia has implemented an extensive data collection program through the **Fisheries Data Collection Working Group (FDCWG)**, with trained observers stationed at key landing sites. Observers monitor catch composition, fishing effort, and bycatch, entering data electronically for efficient analysis and reporting. This data is verified and submitted to the IOTC as part of Somalia's national reports, contributing to accurate regional fisheries data.

National Catch Reconstruction Plan: With five years of consistent national data collection, Somalia is developing a **National Catch Reconstruction Plan** to improve historical data accuracy and better understand trends in fisheries catches. This initiative is supported by collaboration with the IOTC Secretariat and is designed to address data gaps, offering a reconstructed view of Somali catch data over recent years. Once completed, the plan will provide valuable data for IOTC stock assessments and fisheries management.

Collaborative Research with International Partners: Somalia collaborates with organizations such as the FAO, IOTC, and other regional bodies to access expertise, resources, and support for data validation and analysis. These partnerships enhance Somalia's research capacity and ensure that data

collection methods meet international standards, enabling effective participation in IOTC assessments and reporting.

7.1. National research programs on blue shark

The gillnets and handline that target tunas and tuna like species do not have blue shark.

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

Somalia's Ten-Year Fishery Master Plan includes specific provisions for managing the billfish fishery. It outlines measures for comprehensive data collection and reporting on all billfish species, aligning with IOTC guidelines and promoting sustainable management of billfish resources in Somali waters.

7.3. National research programs on sharks

Somalia is examining methods to enhance the selectivity of fishing gear used by its artisanal and semi-industrial fisheries. This research includes assessing the effectiveness of prohibiting wire leaders, which are known to increase shark mortality. By testing alternative gear configurations, Somalia aims to reduce unintended shark catches and improve the survival rates of released sharks.

7.4. National research programs on oceanic whitetip sharks

Somalia is working to integrate its findings into regional databases managed by the IOTC and other conservation bodies.

7.5. National research programs on marine turtles

Somalia recently adopted a new Federal Fisheries Law, which supersedes the **Fisheries Act of 1985**. This updated law reinforces protections for marine life, aligning with the Federal Constitution's conservation commitments and highlighting the Somali government's growing priority on marine conservation. The Ministry of Fisheries has documented interactions between marine turtles and artisanal fishers, underscoring the need for continued protections and management measures. In 2025, Somalia is set to implement its first dedicated marine turtle conservation project.

7.6. National research programs on thresher sharks

Somalia currently does not have a dedicated research program on **thresher sharks (Alopias spp.)** to fulfill the requirements of *IOTC Resolution 12.09*, **paragraph 6**, which encourages CPCs to implement research on thresher sharks to identify potential nursery areas within the IOTC area of competence. The primary fishing methods in Somalia—such as **handline and trolling** in surface fisheries—do not typically interact with thresher sharks, minimizing incidental capture of this species.

However, **floating gillnets** have shown occasional interactions with thresher sharks, though these interactions remain minimal. To monitor and record any incidental captures, Somalia includes thresher shark data in its national data collection program through the Fisheries Data Collection Working Group (FDCWG). This approach allows Somalia to track occurrences of thresher sharks in its waters, contributing to regional knowledge on this species, even without a dedicated research initiative.

8. Implementation of Scientific Committee Recommendations and Resolutions of the IOTC relevant to the SC.

Table 9. Scientific requirements contained in Resolutions of the Commission, adopted between 2012 and 2023.

Res. No.	Resolution	Scientific requirement	CPC progress
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	Somalia has established protections under the Fisheries Law No. 008 (2023), including prohibitions on harming turtles, safe fishing gear practices, and mandatory release of unintentionally caught turtles. Data is reported to IOTC under the Regional Observer Scheme (ROS).
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	Currently, Somalia does not have a dedicated research program for thresher sharks, but interactions with gillnets are monitored, and data is recorded under the national data collection framework.
13/04	On the conservation of cetaceans	Paragraphs 7– 9	Conservation measures are integrated into Somali fisheries policies, including restrictions on harmful practices and monitoring of cetacean interactions within artisanal fisheries.
13/05	On the conservation of whale sharks (*Rhincodon typus*)	Paragraphs 7– 9	Somalia has implemented guidelines to avoid interactions with whale sharks, including safe release protocols for incidental catches and regular reporting through national data collection.
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	Somalia is taking steps to improve shark conservation, focusing on gear selectivity, data collection, and handling practices for species survival post-release.
15/01	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–10	Somalia records detailed catch and effort data across major landing sites as part of its Fisheries Data Collection Working Group activities, submitting reports to the IOTC annually.
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	Somalia complies with statistical reporting requirements by collecting and submitting data on all significant species interactions, including catch, effort, and bycatch, under national and regional guidelines.
17/05	On the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 6, 9, 11	Somalia focuses on selective fishing practices, prohibiting wire leaders, improving data on shark life-history traits, and identifying key habitats. Handling guidelines are in place to maximize post-release survival.

Res. No.	Resolution	Scientific requirement	CPC progress
18/02	On management measures for the conservation of blue shark caught in association with IOTC fisheries	Paragraphs 2-5	Somalia is documenting blue shark interactions in artisanal fisheries and has implemented reporting systems to comply with conservation guidelines.
18/05	On management measures for the conservation of the Billfishes: Striped marlin, black marlin, blue marlin and Indo-Pacific sailfish	Paragraphs 7 – 11	Somalia includes billfish conservation in its Fisheries Master Plan, focusing on data collection, gear selectivity, and reporting to the IOTC.
18/07	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Paragraphs 1, 4	Somalia works to meet all reporting requirements, submitting annual data on catches, bycatch, and gear usage to the IOTC.
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	Not Applicable
19/03	On the Conservation of Mobulid Rays Caught in Association with Fisheries in the IOTC Area of Competence	Paragraph 11	Somalia currently lacks a specific sampling plan for mobulid rays, but precautionary measures are in place, and mobulid interactions are recorded in national data collection.
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	Not Applicable
22/04	On a regional observer scheme	Paragraph 12	Somalia participates in the IOTC's Regional Observer Scheme, collecting and reporting data on species interactions and bycatch, particularly in artisanal fisheries.
23/07	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	Somalia requires foreign-licensed vessels south of 25˚S to use seabird bycatch mitigation measures (e.g., bird-scaring lines, weighted lines, night setting). Data on seabird interactions is monitored through the IOTC's ROS and reported to the Secretariat via form 1DI.

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