

## INDIAN OCEAN TUNA COMMISSION (IOTC) 23RD SESSION, JUNE 17-21, 2019

### Tuna Conservation

#### What are the issues?

In 2018, the Scientific Committee reported that catches of both yellowfin and skipjack tunas exceeded the management measures agreed by the Commission. For yellowfin tuna, a species that is overfished and subject to overfishing, an over catch of 3% places further stress on this resource. For skipjack tuna, although the stock remains healthy, the 12% increase in the total catch is greater than the target reference point (TRP) agreed in Resolution 16/02 On Harvest Controls Rules for Skipjack Tuna.

The Commission needs to take decisive action to end overfishing of yellowfin tuna and implement the agreed harvest control rule for skipjack to ensure the long-term sustainability of these resources.

#### Why are we concerned?

Non-compliance with Resolution 18/01 for an interim rebuilding plan for the Indian Ocean yellowfin tuna stock is likely resulting in further declines in this stock. Moreover, the catch reductions agreed at that time allow for growth in some fishery sectors and did not give full effect to the advice of the IOTC Scientific Committee.

ISSF remains concerned that there has been continued inaction to arrest the overfishing of other key IOTC species, including neritic tuna and billfish species that have been assessed to be overfished and/or undergoing overfishing. These IOTC fisheries will experience further declines in stock status if no management actions are agreed.

Finally, ISSF was disappointed that no proposal for the neritic tunas was tabled in 2018. We urge coastal States to take action this year to develop and adopt management measures for these species that are critical for regional food security.

#### Our Top Asks for IOTC in 2019:

1. Adopt an effective rebuilding plan for yellowfin tuna that gives full effect to the advice of the IOTC Scientific Committee, and also revise the overall catch reductions contained in Resolution 18/01 to ensure rebuilding and address the current circumstances that allow for growth in some fishery sectors.
2. Adopt species-specific harvest strategies as soon as possible, particularly for yellowfin tuna, and conduct a review of the LRPs in Resolution 15/10 to allow for the adoption of harvest control rules by 2020.
3. Urgently address data gaps in artisanal fisheries, especially for gillnets.
4. Strengthen MCS measures, such as VMS and the ROS, to support data collection, monitoring and the implementation of harvest strategies.
5. Strengthen FAD management, including of supply and tender vessels; ensure full implementation of non-entangling FADs; and support testing of biodegradable FADs.
6. Amend Res. 11/04 to require 100% observer coverage on large-scale purse seine vessels; adopt the ROS Standards for national programs; and develop EM/ER standards so that EM can be used to ultimately achieve 100% observer coverage in purse seine and longline fisheries.
7. Continue to strengthen the IOTC compliance assessment process.

## **What is ISSF asking IOTC to do?**

- 1) Adopt an effective rebuilding plan for yellowfin tuna that gives full effect to the advice of the IOTC Scientific Committee and achieves spawning biomass of BMSY by 2024 with at least 50% probability and has at least a 60% probability of maintaining the stock within the Kobe green zone thereafter, including through such management options as time/area closures (e.g., FAD closures or total closures) that are based on the scientific advice, and ensuring all gears harvesting yellowfin are taken into account.
- 2) Revise the overall catch reductions contained in Resolution 18/01 to improve rebuilding potential and address the current circumstances that allow for growth in some fishery sectors.
- (3) Ensure Contracting Party and Cooperating Non-Contracting Party (CPC) compliance with the rebuilding plan through the IOTC Compliance Committee.
- (4) Urgently monitor catches of skipjack to ensure catches in 2018-2020 do not exceed the limit set by Resolution 16/02, as recommended by the IOTC Working Party on Tropical Tunas.
- (5) Develop and adopt effective management measures to arrest the overfishing of neritic tuna and billfish species and develop rebuilding plans for those species that have been assessed to be in an overfished state.

## **GILLNET FISHERIES**

### **What is the issue?**

Gillnet fisheries account for a substantial amount of tuna catches in the Indian Ocean (IO). Gillnets also catch numerous other species, including species of special interest. The paucity of data from these gillnet fisheries is greatly impacting the rigor of the stock assessments and, in turn, the scientific management advice.

### **Why are we concerned?**

The IOTC Science Committee (SC) has continually noted that gillnet fisheries are inadequately monitored yet have a substantial impact on marine ecosystems and account for a high proportion (30% or more) of some tuna species catches. Like all fishing gears, gillnets need to be effectively managed and monitored.

### **What is ISSF asking IOTC to do?**

- (1) Increase CPCs' compliance with the minimum data collection and reporting requirements in IOTC Resolutions 15/02 and 15/01 for all gillnet fleets.
- (2) Adopt a resolution to manage and independently monitor gillnet fisheries in the high seas as well as support monitoring in coastal State CPC EEZs.
- (3) Fund dedicated capacity-building activities, or data compliance and support missions, aimed at improving the availability of data for neritic species. Also fund the development of standardized CPUE series for gillnets, including organizing a joint workshop or hiring an international consultant, as recommended by the IOTC Science Committee.
- (4) Extend retention, utilization, and reporting of total catch obligations agreed in Res 17/04 to gillnet and other fleets not covered by 17/04.

## **Fish Aggregating Devices (FADs)**

### **What are the issues?**

More data needs to be collected on FAD type, usage, and CPUE in the IO to better understand changes in fishing capacity and likely impacts on stocks managed through the IOTC. That data should be used to develop science-based FAD management measures.

## Why are we concerned?

In the Indian Ocean, FAD sets account for nearly 33% of tuna catches and 43% of skipjack catches. It's time for a concerted effort to better monitor FAD usage and to establish a sound basis for FAD management in every ocean region. In the IO, shark and non-target species mortality and other ecosystem impacts, such as marine debris and FAD beaching need to be reduced; using non-entangling and biodegradable FAD designs is a critical step to achieving that.

## What is ISSF asking IOTC to do?

- (1) Using mandatory data collected by CPCs in accordance with Resolution 18/08, analyze FAD usage patterns and catch per unit effort (CPUE) to determine changes in fishing capacity and possible impacts on IO stocks.
- (2) Task the FAD Working Group to continue coordinating, collaborating on, and considering research and advice presented at other RFMOs when defining IO management for drifting and anchored FADs.
- (3) Amend Resolution 17/08 to include a date by which non-entangling FADs shall be fully implemented, as recommended by the IOTC Science Committee.
- (4) Request the Scientific Committee provides advice on the maximum number of active instrumented buoys per purse seine vessel provided in Resolution 17/08 and whether this limit should be reduced.
- (5) Implement the Science Committee and Working Party on Tropical Tuna's recommendations, including regarding the development of a revised form for reporting FAD activity data and clear definitions to ensure consistency in FAD data submission that are harmonized with other tuna RFMOs.
- (6) Support and collaborate with the BIOFAD Project and urge CPCs visiting or fishing on FADs clearly identified as experimental to report to their national scientists the status of the FAD (and devices) and their activities on this FAD (including any catch data).
- (7) Develop a FAD marking scheme, as called for in Resolution 17/08, that is consistent with the FAO Guidelines on the Marking of Fishing Gear.

## Supply and Tender Vessels

### What are the issues?

Supply vessels are used by purse seine vessels fishing with drifting fish aggregating devices (dFADs) to maintain the condition and position of the purse seine vessel's network of drifting FADs (dFADs). These supply vessels range from 40 to 50 meters in length, are operated by a crew of around 6 persons, and can be refurbished from other fisheries or built specifically to serve as dFAD maintenance boats with deck characteristics designed to manipulate dFADs.

### Why are we concerned?

Supply and tender vessel activities related to dFADs increase the efficiency of the purse seiner by reducing the time needed by the purse seiner to search for or maintain FADs. Greater data collection is needed regarding supply vessels, as well as regulation and monitoring.

### What is ISSF asking IOTC to do?

- (1) Clarify that the minimum levels of observer coverage (either human or electronic) required by Resolution 11/04 apply to supply and tender vessels to collect and report data from these fishing activities, and to ensure compliance with Resolution 18/01.
- (2) Clarify that VMS reporting requirements apply to supply and tender vessels so the activities of these vessels are effectively monitored.
- (3) Amend Resolution 18/08 on FAD management to include supply and tender vessels so to further enhance the management of support and tender vessels.

# Harvest Strategies

## What are the issues?

Harvest Strategies or Management Procedures are pre-agreed rules for the management of fisheries. They include target and limit reference points (TRPs and LRPs) and associated harvest control rules — and outline the data requirements needed to manage the stock. These pre-agreed rules also describe the actions to be taken in response to changes in stock status. Pre-agreed rules and strategies enable prompt management action to avoid overfishing or to rebuild stocks, and they reduce protracted negotiations that can lead to further declines in the stock.

## Why are we concerned?

In 2017 IOTC agreed to the Schedule of Work for the Development of Management Procedures that outlines the tasks to be undertaken by the IOTC and its subsidiary bodies for the development of harvest strategies for key IOTC species. Despite the considerable work completed to date, the Commission has not yet considered any further proposals to compile this work into binding Resolutions. IOTC CPCs must now bring the scientific and technical work together as a proposal for the consideration of the Commission.

## What is ISSF asking IOTC to do?

- (1) Act on the Technical Committee on Management Procedures' (TCMP) recommendations on the adoption of harvest strategies, and assist developing CPCs to support their participation in this work.
- (2) Consider the Scientific Committee-endorsed MSE outcomes for Albacore (ALB), Bigeye (BET), and Yellowfin (YFT) tuna and advance MSE for these stocks.
- (3) Adopt species-specific harvest strategies, particularly for yellowfin tuna, that follow the decision framework of Resolution 15/10, achieve targets, and avoid breaching limits consistent with the best available scientific advice and level of uncertainty in the stock assessments. Also conduct a review of the LRPs in Resolution 15/10 to allow for the adoption of harvest control rules by 2020.

# Sharks, Turtles, Seabirds and Cetaceans

## What are the issues?

Science-based conservation and management measures to limit fishing mortality on bycatch, including species of special interest such as sharks, turtles and seabirds, must be adopted and implemented. Data collection and reporting from all CPCs is essential to support the adoption of bycatch mitigation measures based on the best available science and the precautionary approach (Resolution 12/01).

In 2016, the IOTC adopted Resolution 16/06, a mechanism to encourage CPCs to comply with reporting obligations for sharks and other bycatch species. The paucity of data on catches and interactions with non-target species prevents assessments and hinders the provision of scientific advice for effective conservation measures.

## Why are we concerned?

Data on sharks in the IO are extremely limited, preventing accurate assessments of shark species status. However, even with the limited data available, it is clear that the abundance of some species is declining. While the IOTC does not have a clear mandate to manage shark fisheries, it must take action to mitigate the impact of tuna fisheries on shark populations. The IOTC needs to adopt scientifically proven bycatch mitigation measures for all gear types to mitigate the impact of fishing on all bycatch species.

## What is ISSF asking IOTC to do?

### Sharks:

- (1) Adopt sufficient measures to limit fishing mortality on sharks, as recommended by the IOTC Scientific Committee.
- (2) Take immediate steps to enforce IOTC Resolution 17/05 on shark finning through the Compliance Committee.
- (3) Strengthen IOTC Resolution 17/05 on shark finning by requiring that all sharks be landed with fins naturally attached.
- (4) Adopt Best Practices for the Safe Release of Sharks and Mobulid and Manta Rays, as have been adopted in the WCPFC and IATTC.

### Turtles:

- (5) Amend Resolution 12/04 on turtle conservation to implement scientifically proven mitigation measures for all longline and gillnet fisheries, require all turtles to be identified to species level, and improve the minimum data observer data requirements for turtles.

### Seabirds:

- (6) Amend Resolution 12/06 on seabird conservation to include hook-shielding devices on the list of possible mitigation measures, and require that all seabirds are identified to species level.

### Cetaceans:

- (7) Collaborate with the International Whaling Commission and other relevant organizations to develop and agree on appropriate bycatch mitigation techniques for the IOTC, as was recommended by the Scientific Committee and included in the Working Party on Ecosystems and Bycatch Work plan.

## Monitoring, Control and Surveillance

### OBSERVER COVERAGE

#### What are the issues?

Comprehensive observer coverage is a critical component of monitoring and management for sustainable tropical tuna fisheries. Observer data also can be used for monitoring vessel compliance with management measures. The paucity of data on catches and interactions with non-target species in the IOTC prevents assessment and hinders scientific advice for effective conservation measures. Resolution 11/04 only requires 5% observer coverage irrespective of the gear and/or area of operation. The IOTC is lagging far behind other RFMOs. Both WCPFC and IATTC require 100% observer coverage of large-scale purse seine vessels, and ICCAT requires 100% observer coverage of all vessels, including support vessels, when engaged in fishing activities during a specific time/area closure, as well as 100% coverage in the eastern Atlantic bluefin fishery.

#### Why are we concerned?

The IOTC has failed to take account of the agreed best practices for observer coverage. The Commission was unable to agree on even modest proposals to increase coverage rates from a minimum of 5% to 10-30% in 2018. Although electronic monitoring is not a replacement for onboard human observers, the technology can be used where placement of human observers is not possible for certain fleets or vessel sizes, including longliners. Standards for the use of electronic monitoring, including review rates by dry observers, must be adopted as a matter of priority. Observer coverage rates in the IOTC must increase to strengthen data collection, including of rare species interactions and events, and to ensure rigorous compliance monitoring.

#### What is ISSF asking IOTC to do?

- (1) Adopt the minimum Regional Observer Scheme Standards presented in Circular 2019-08 to provide minimum standards, including related to observer training, for all national observer programs operating in the IOTC.

- (2) Advance the Pilot Project for the IOTC Regional Observer Scheme (Resolution 16/04) to accelerate increased observer coverage for all gears.
- (3) Amend Resolution 11/04 to increase the minimum observer coverage levels for large-scale purse seine vessels to 100% and to require all national observer programs to be audited against the minimum requirements.
- (4) Adopt a binding measure that will ensure the safety of human observers, including those on carrier vessels.
- (5) Develop minimum standards for EMS and an e-reporting information system (e-Maris), including for logbooks, as part of the Pilot Project for the IOTC Regional Observer Scheme (Resolution 16/04) and endorsed framework (IOTC-2017-S21-10) that are applicable to different gear types, particularly for longline and purse seine so that EM can be used to ultimately achieve 100% observer coverage in those fisheries as a priority.
- (6) Identify and sanction non-compliance with the 5% longline observer coverage requirement.

## LONGLINE TRANSSHIPMENTS

### What are the issues?

To better manage transshipment and combat Illegal, Unreported and Unregulated (IUU) fishing activities, deficiencies and loopholes must be addressed in the IOTC's Resolution 18/06 on transshipment. The IOTC permits the use of carrier vessels that are not flagged to a member or a cooperating non-member of the IOTC; there is no requirement for IMO numbers for carrier vessels, and all associated reporting deadlines must be reduced to near real-time.

### Why are we concerned?

At-sea transshipment has been linked to IUU fishing activities and labor abuses when monitoring, control and surveillance (MCS) measures are insufficient. Management of at-sea transshipment needs to be strengthened and transparency improved with near real-time reporting and verification not only with 100% observer coverage, but with in-port inspections. At-sea transshipment continues to expand in the IOTC. In 2017, 1,259 at-sea transshipments from vessels of eight IOTC CPCs were observed, the highest number of at-sea transshipments undertaken in the region. However, the IOTC Compliance Committee also noted that observers recorded 249 possible infractions by vessels participating in the IOTC's transshipment program.

### What is ISSF asking IOTC to do?

- (1) Undertake a thorough review of the at-sea transshipment resolution and amend the Resolution to address the following known loopholes:
  - (a) Only permit carrier vessels flagged to IOTC members or CNMs to participate in the IOTC at-sea transshipment program.
  - (b) Develop electronic reporting standards and forms and require that all reporting is undertaken in near real-time, but no greater than 24 hours after the event.
  - (c) Implement a mandatory requirement for all vessels to submit transshipment declarations to both the flag State and the IOTC Secretariat for in-port and at-sea transshipments.
  - (d) Develop, adopt and implement electronic monitoring standards to be used on fishing and carrier vessels to provide greater certainty that vessels are not acting as fishing and carrier vessels on the same trip.
  - (e) Require 100% observer coverage (human, electronic, or a combination) on board both the fishing vessel and the carrier vessel for all at-sea transshipping events.
- (2) Require flag states to report annually to the Secretariat the vessels they have granted prior authorization to transship at sea.
- (3) Enforce the existing measure through compliance assessment process.

## MCS TOOLS

### What are the issues?

Fisheries management relies on the adoption and implementation of effective MCS tools. MCS tools include technologies and programs such as satellite Vessel Monitoring Systems (VMS), independent observer programs, port monitoring, electronic reporting and monitoring and IUU Vessel Lists. When integrated and working in concert, MCS tools strengthen the Commission's ability to detect non-compliance and IUU fishing. This in turn reduces uncertainty in the management regime and strengthens confidence that the measures adopted are fully implemented.

## **Why are we concerned?**

The Second Performance Review recommended that the IOTC develop and implement an integrated MCS program. In 2019 the Commission will consider ways to strengthen the IOTC VMS program and minimum standards for the national observer programs operating under the Regional Observer Scheme. IOTC's current VMS program is not an effective MCS tool, and for many fleets, implementation of and compliance with the existing VMS requirements is very low. Likewise, the implementation of national observer programs under the Regional Observer Scheme remains very low and lacks minimum standards.

## **What is ISSF asking IOTC to do?**

- (1) For the VMS, consider the outcomes of the VMS Consultancy and the associated recommendations from the VMS Steering Committee to strengthen the regional satellite-based VMS, including consideration of a centralized or partly centralized program with greater data sharing.
- (2) Continue to develop, including through the Working Party on Implementation of CMMs, a fully integrated MCS program using best practices.

## **RECORD OF FISHING VESSELS AND IMO NUMBERS**

### **What are the issues?**

IMO numbers are a critical tool in combatting IUU fishing and strengthening flag State control by enabling tracking of the vessel throughout its life. Therefore, all vessels able to receive an IMO number should do so. The IOTC, like all the tuna RFMOs, requires vessels on the IOTC Record of Fishing Vessels to have an IMO number (Resolution 15/04) when they are eligible to receive one. However, there is no requirement for IMO numbers on other vessels operating in the IOTC Area of Competence, including carrier vessels, support and supply vessels.

### **Why are we concerned?**

Since the implementation of the IOTC Resolution, the vessel size threshold for which IMO numbers can be obtained has changed. The rules now allow "all motorized inboard fishing vessels of less than 100 GT down to a size limit of 12 meters in length overall (LOA) that are authorized to operate outside waters under national jurisdiction" to receive an IMO number.

### **What is ISSF asking IOTC to do?**

- (1) Amend Resolution 15/04 to reflect the 2017 IMO Decision and require all vessels on the IOTC Record of Fishing Vessels that were not previously eligible to receive an IMO number to obtain one as soon as possible.
- (2) Consider further amendments to Resolution 15/04 to:
  - (a) Have it apply to all vessels authorized to operate in the IOTC Area of Competence, such as carrier vessels, support and tender vessels
  - (b) Require that CPCs provide the specified minimum data requirements for all their authorized flag vessels before the vessels can be included on the IOTC Record of Fishing Vessels

## **TRANSPARENCY IN CATCH OR EFFORT LIMITS**

### **What are the issues?**

IOTC has adopted catch limits for yellowfin tuna via Resolutions 16/01 and 17/01 and skipjack tuna via the Harvest Control Resolution 16/02. However, SC21 highlighted that the catch and effort for both yellowfin and skipjack have exceeded these catch limits, by 3% and 12%, respectively. For yellowfin tuna, which is overfished, this has reduced the stock further. For skipjack, the SC notes considerable uncertainty in the stock assessment and an urgent need to monitor the catches throughout 2018-2020.

This highlights the need for CPC reporting of catches in near real-time, including when the total and/or allocated catch limits are being approached and if CPCs are within the prescribed limits. A transparent in-season reporting mechanism would allow CPCs and markets to make necessary conservation decisions during a given year if quotas are being achieved more quickly than anticipated. Furthermore, it is imperative for future harvest strategies that the Commission adopt effective MCS mechanisms that enable near real-time management of the fisheries.

## Why are we concerned?

A lack of in-season monitoring of how CPCs are approaching, or possibly exceeding, annual individual catch or effort limits, or a total allowable catch or total allowable effort for a specific tuna stock, prevents rapid and precautionary conservation, management and purchasing decisions within a given year. For instance, under current Resolutions, it is not possible to gauge compliance with catch limits until at least 2 years after the limits are put into effect. This undermines rapid detection of non-compliance with catch or effort controls.

## What is ISSF asking IOTC to do?

- (1) Require CPCs to report their in-season catch or effort status with respect to their individual catch or effort limits and/or annual TACs or TAEs, where specified.
- (2) Adopt management measures that are easier to enforce, such as a total fishery closure (potentially with two closure periods).
- (3) Request the Scientific Committee develop quality assurance mechanisms for verification of in-season reports, including through the use of electronic reporting technologies, to minimize the risk of misreporting.
- (4) Continue to develop and implement rigorous MCS tools to support in-season reporting of CPC catch, effort and monitor compliance with conservation and management measures.

# Compliance

## COMPLIANCE PROCESSES

### What are the issues?

The IOTC has been operating a transparent compliance assessment process since 2011. However, improvements are needed to continue strengthening the process, given the continued high level of non-compliance by CPCs.

### Why are we concerned?

IOTC Compliance Committee reports indicate there is significant CPC non-compliance and gaps in implementation with a range of IOTC measures, which increases uncertainty and reduces the effectiveness of IOTC conservation and management measures and the IOTC generally.

### What is ISSF asking IOTC to do?

- (1) Implement the recommendations from the Working Party on the Implementation of CMMs in accordance with the MCS-related recommendations from the 2nd IOTC Performance Review and as agreed in [Resolution 16/03](#).
- (2) Require CPCs to submit a compliance action plan that demonstrates each CPC's actions to improve their implementation of new and existing measures, address identified areas of non-compliance and implement their flag State duties.
- (3) Begin considering how to respond to repeated, significant instances of ongoing and/or severe non-compliance.

## ADDRESSING DATA GAPS

### What are the issues?

Developing effective, robust tuna stock conservation and management requires comprehensive information on fishing activity. Full compliance with data collection and reporting consistent with Resolutions [15/01](#) and [15/02](#) is essential to supporting tuna stock assessments, conservation, and management.

### Why are we concerned?

The level of data reporting by IOTC CPCs remains very low, despite some recent improvements. For instance, the level of

compliance by members in 2018 with the mandatory statistical requirements in Resolution 15/01 and 15/05 was only 46%. While this is an 11% improvement since 2010, more work is needed to ensure full implementation of IOTC resolutions.

### **What is ISSF asking IOTC to do?**

- (1) Implement recommendations PRIOTC02.05 and PRIOTC02.03 from the 2nd IOTC Performance Review on capacity building and data collection and reporting, respectively, as agreed in [Resolution 16/03](#).
- (2) Explore alternative mechanisms to support developing CPCs' compliance with data reporting obligations under Resolutions 15/01 and 15/02, including crew-based logbook programs, port sampling and the use of electronic reporting and monitoring.
- (3) Support the Science Committee's recommendations 21.10 and 21.21(v) for continue CPUE standardization and analysis of neritic tunas for the Indian Ocean coastal longline fisheries, and for the yellowfin tuna fishery generally (paragraph 113).
- (4) Implement the SC recommendation to amend Annex II and III of Resolution 15/01 to require that all species of special interest (e.g., threatened, endangered and protected species) be recorded in both logbooks and by observers, to the species level.

## **Capacity Management**

### **What are the issues?**

The IOTC needs to implement a system for managing fishing capacity consisting of a closed vessel registry. Capacity management is needed to support the rigorous management of IO tuna fisheries commensurate with the sustainability of the resources.

### **Why are we concerned?**

Excessive fishing capacity contributes substantially to overfishing, marine resources degradation, decline in food production potential, and economic waste.

### **What is ISSF asking IOTC to do?**

- (1) Implement recommendation PRIOTC02.09 of the 2nd IOTC Performance Review on fishing capacity management as agreed in [Resolution 16/03](#).
- (2) Consider the outcomes of the 2014 ISSF workshop on transferring fishing capacity from developed to developing countries, especially when considering Allocation Schemes.
- (3) Amend [Resolution 03/01](#) to create a comprehensive closed vessel registry.

## ISSF Global Priorities for Tuna RFMOs

- Implementation of rigorous harvest strategies, including harvest control rules and reference points
- Effective management of fleet capacity, including developing mechanisms that support developing coastal state engagement in the fishery
- Science-based FAD management & non-entangling FAD designs
- Increased member compliance with all adopted measures adopted, and greater transparency of processes reviewing member compliance with measures
- Strengthened Monitoring, Control and Surveillance (MCS) measures and increased observer coverage, including through modern technologies such as electronic monitoring and e-reporting
- Adoption of best-practice bycatch mitigation and shark conservation and management measures

### Did you know?

50% of the IOTC tuna catch is landed by small scale and artisanal fleets.

Unfortunately, IOTC lags other RFMOs on data collection and reporting as well as on requiring 100% purse seine observer coverage.

ISSF is leading research on biodegradable FADs in the IO in collaboration with IO fleets, coastal nations, and other stakeholders.

ISSF also offers guidelines for implementing non-entangling FADs.

Three ISSF conservation measures focus on shark bycatch mitigation.



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