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Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

Fisheries management

IOTC ROS SFO TR1



This module aims to provide Observers with the required knowledge on the:

- ✓ basic concepts of fisheries management,
- ✓ the usage of observer programs in fisheries management, and
- ✓ IOTC fisheries concepts relevant to scientific observer work

Candidates performance on this training module will be evaluated based on their understanding of the concept of target species; bycatch species; non-target species, retained catch, discarded catch, overfishing, FAD, associated and free school, improper for human consumption as defined by the IOTC.



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India Ocean Fisheries for Tuna and Tuna Like Species and the IOTC Agreement

IOTC ROS SFO TR1.2

Category: Fisheries management

[IOTC ROS SFO TR1]



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TRAINING MODULE DESCRIPTOR

To understand the agreements in place to promote the sustainable management of the Indian Ocean tuna resources it is necessary to get familiar with:

- ✓ Indian Ocean fisheries for tuna and tuna like species

- ✓ The IOTC agreement

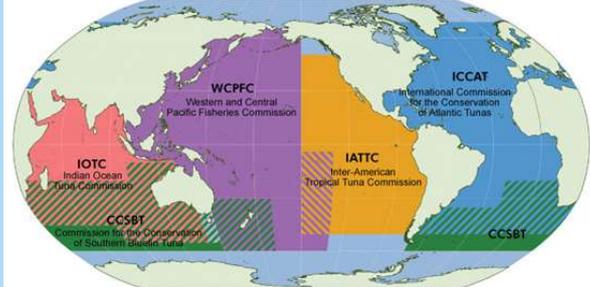
- ✓ The regional and national context of IOTC regional observer scheme



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Regional Fisheries Management Organizations



5 tuna RFMOs worldwide

- *Manage fisheries for tuna and other large species such as swordfish and marlin*
 - *Manage tuna fisheries in 91% of the world's oceans*
- Commission for the Conservation of Southern Bluefin Tuna (CCSBT)
 - Inter-American Tropical Tuna Commission (IATTC)
 - International Commission for the Conservation of Atlantic Tuna (ICCAT)
 - Indian Ocean Tuna Commission (IOTC)
 - West Central Pacific Fisheries Commission (WCPFC)



Under the previously described international law, countries are required to cooperate to manage high seas, straddling and highly migratory fish stocks, via RFMOs. From the 17 RFMOs, five are the so-called tuna RFMOs, which manage fisheries for tuna and other large species such as swordfish and marlin. Together, the five tuna RFMOs have responsibility for managing fisheries in approximately 91 percent of the world's oceans.



TUNA FISHING IN THE INDIAN OCEAN



- *IO catch is about 20% of the world-wide total tuna production.*
- *65 % (≈1 million de tonnes) caught in the West Indian Ocean*



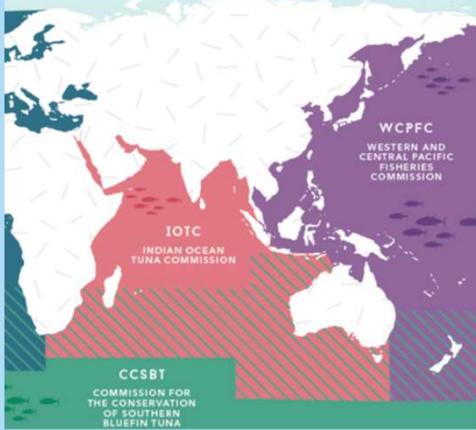
1. Most important marine species for the global economy
2. Highly migratory fish species
3. 60% of the industrial tuna fishery in the IO is carried out on the high seas outside the control of a given country
4. 90% is carried out by distant water fishing nations

The Indian Ocean is one of the world's most economically important fishing areas accounting for up to 20% of the world's production of tuna, making it the second largest region for tuna fishing after the Western and Central Pacific Ocean.

The region harbours abundant and highly prized fishery resources intensively harvested by Asian and European fleets as well as artisanal fisheries from coastal countries. Despite lower coastal catches, tuna fisheries and related economic activities are important to local economies where tuna is of major importance for food security and constitutes a major socio-economic pillar. It is estimated that 60% of the industrial tuna fishery in the Indian Ocean is carried out on the high seas outside the control (EEZ) of a given country. For this reason, several regional agreements exist to promote the sustainable management of the resources of the Indian Ocean: the Indian Ocean Tuna Commission (IOTC) and the Commission for the Conservation of the Southern Bluefin Tuna (CCSBT).



TUNA RFMOs IN THE INDIAN OCEAN



Two Regional Fisheries Management bodies co-exist in the Indian Ocean :

- **INDIAN OCEAN TUNA COMMISSION (IOTC)**
- **COMMISSION FOR THE CONSERVATION OF SOUTHERN BLUEFIN TUNA (CCSBT)**

The Indian Ocean Tuna Commission (IOTC) is the main body responsible for the management of tuna and tuna-like species in the Indian Ocean and shares these objectives with four other tuna RFMOs covering the ocean regions of the world.

Its main objective is to promote the sustainable use of all tuna and tuna like fishery resources in the Indian Ocean.



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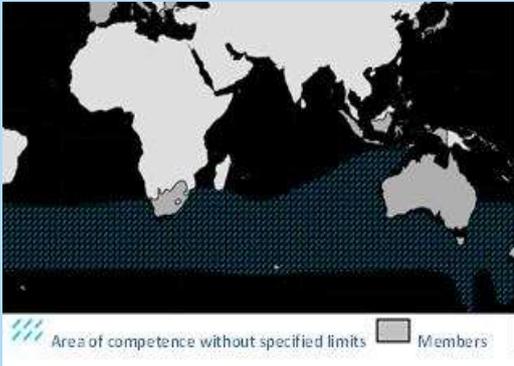


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COMMISSION FOR THE CONSERVATION OF SOUTHERN BLUEFIN TUNA (CCSBT)



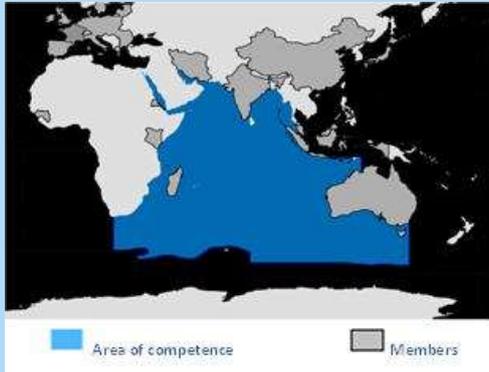
- Based in Australia since 1994
- Area of competence
 - circumpolaire de 30° à 50°S
- 8 membres (Australia, the European Union, the Fishing Entity of Taiwan, Indonesia, Japan, Republic of Korea, New Zealand and South Africa)
- 1 cooperating non-member (Philippines)
- Manages the conservation and optimum utilisation of the Southern Bluefin tuna (*Thunnus macoie*)



Another tuna regional fisheries management body that co-exists with the IOTC in the Indian Ocean is the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) with its main objective is to ensure, through appropriate management the conservation and optimum utilisation of southern bluefin tuna. The CCSBT area of competence extends over all national waters and the high seas, where southern Bluefin tuna are found.



INDIAN OCEAN TUNA COMMISSION (IOTC)



- Based in the Seychelles
- Area Of Competence
 - Indian Ocean national waters and the high seas;
- Composed of 32 member States including the [CPC] since [year]
- 4 cooperating non-members

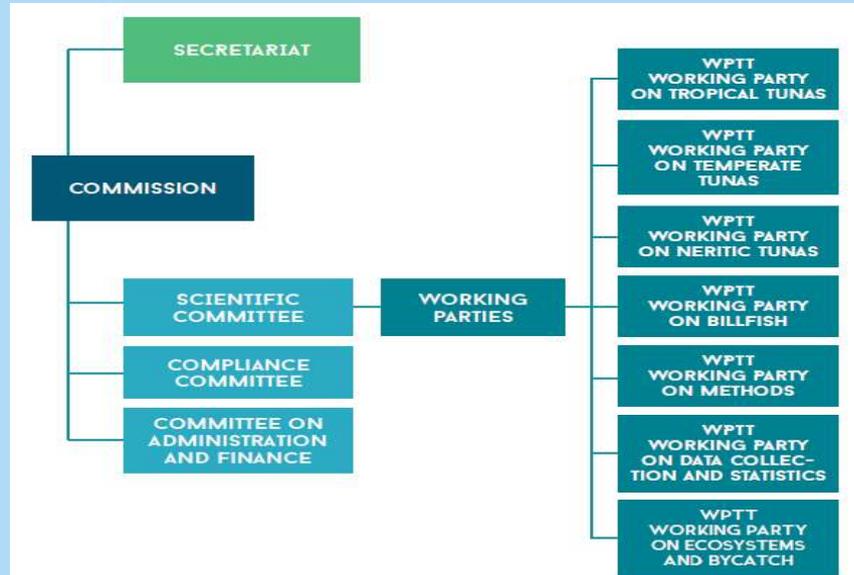
- Manages 16 species of Tuna and tuna-like species
- Note that one of the 16 species (Southern Bluefin tuna) was signed over to the CCSBT.



The area of competence of the Commission extends over national waters and the high seas of the Indian Ocean.



IOTC ORGANISATIONAL STRUCTURE



THE IOTC COMMISSION

Representatives of the Contracting Parties make up the Commission at its annual meetings and this is the main decision-making body. The Commission is the only body authorised to take decisions that are published as IOTC Resolutions, which are binding on Members. It is the responsibility of Members to ensure that action is taken under their national legislation to implement CMMs, which become binding on it.

THE COMMITTEES

The IOTC Commission is supported by three committees that include representatives of each Member State and a permanent Secretariat. These associated bodies have specific functions and are responsible to the Commission and refer their conclusions and recommendations back to the Commission for final decision-making.

THE WORKING PARTIES

Subsidiary bodies set up by the Commission analyse different types of data and information.

THE IOTC SECRETARIAT (Website: www.iotc.org)

A permanent Secretariat provides the administrative support for the Commission and its subsidiary bodies.



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IOTC COMISSION FUNCTIONS & RESPONSIBILITIES

- ✓ Gather, analyse and disseminate scientific information, catch and effort statistics and other data relevant to the conservation and management of the fisheries stocks
- ✓ Encourage, recommend, and coordinate research and development activities in respect of the stocks and fisheries covered by the IOTC
- ✓ Adopt Conservation and Management Measures (CMM) to ensure the conservation of the stocks covered by the Agreement
- ✓ Keep under review the economic and social aspects of the fisheries based on the stocks covered by the Agreement bearing in mind, in particular, the interests of developing coastal States.



Taking into account the objectives of the IOTC agreements and in terms of its mission as an intergovernmental organisation under Article XIV of the FAO constitution, the mandate of the IOTC is to manage tuna and tuna-like species in the Indian Ocean and adjacent seas.



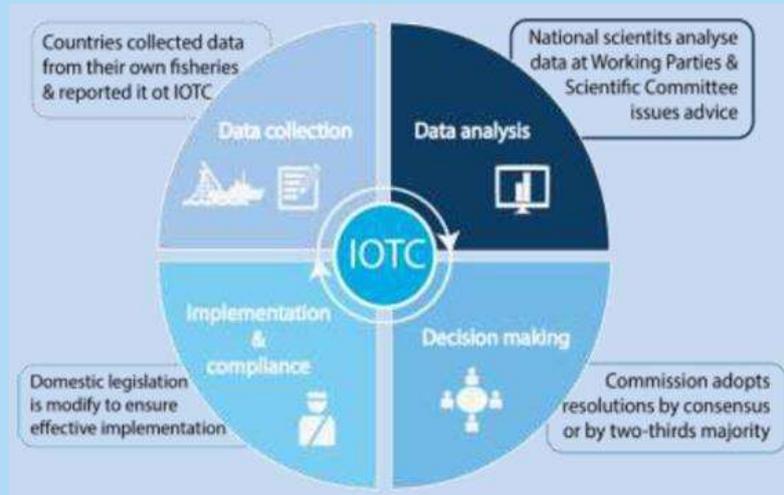
MAIN SPECIES UNDER IOTC MANAGEMENT

FAO English name	FAO French name	Scientific name	FAO Code
Yellowfin tuna	Albacore	<i>Thunnus albacares</i>	YFT
Skipjack	Listao; Bonite à ventre rayé	<i>Katsuwonus pelamis</i>	SKJ
Bigeye tuna	Patudo; Thon obèse	<i>Thunnus obesus</i>	BET
Albacore tuna	Germon	<i>Thunnus alalunga</i>	ALB
Southern Bluefin tuna	Thon rouge du sud	<i>Thunnus maccoyii</i>	SBT
Longtail tuna	Thon mignon	<i>Thunnus tonggol</i>	LOT
Kawakawa	Thonine orientale	<i>Euthynnus affinis</i>	KAW
Frigate tuna	Auxide	<i>Auxis thazard</i>	FRI
Bullet tuna	Bonitou	<i>Auxis rochei</i>	BLT
Narrow barred Spanish Mackerel	Thazard rayé	<i>Scomberomorus commerson</i>	COM
Indo-Pacific king mackerel	Thazard ponctué	<i>Scomberomorus guttatus</i>	GUT
Blue Marlin	Makaire bleu	<i>Makaira nigricans</i>	BUM
Black Marlin	Makaire noir	<i>Istiompax indica</i>	BLM
Striped Marlin	Marlin rayé	<i>Kajikia audax</i>	MLS
Indo-Pacific Sailfish	Voilier de l'Indo-Pacifique	<i>Istiophorus platypterus</i>	SFA
Swordfish	Espadon	<i>Xiphias gladius</i>	SWO

Sixteen (16) species are under the management mandate of the IOTC. In addition, the Commission has instructed the IOTC Secretariat to collate data on non-target, associated and dependent species affected by fisheries targeting tuna and tuna-like species in the IOTC area of competence. Note that one of the 16 species (Southern Bluefin tuna) was signed over to the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) for management purposes.



PROCESS FOR THE ESTABLISHMENT AND IMPLEMENTATION OF IOTC RESOLUTIONS



- Resolutions are binding on the Commission Members.
- IOTC Members are to:
 - integrate Resolutions into domestic legislation
 - ensure Resolutions are effectively implemented
 - verify compliance with Resolutions

Resolutions can be searched here: <https://iotc.org/cmms>



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IOTC REGIONAL OBSERVER SCHEME (ROS)

1. Adopted by the IOTC as an 'independent' source of detailed information on the fisheries being managed.
2. Provides information that can be used to:
 - verify the gear types used in the convention area
 - catch and effort data independent from that reported in logbooks
 - effectiveness of mitigation measures
 - indication of vessels adherence to management measures

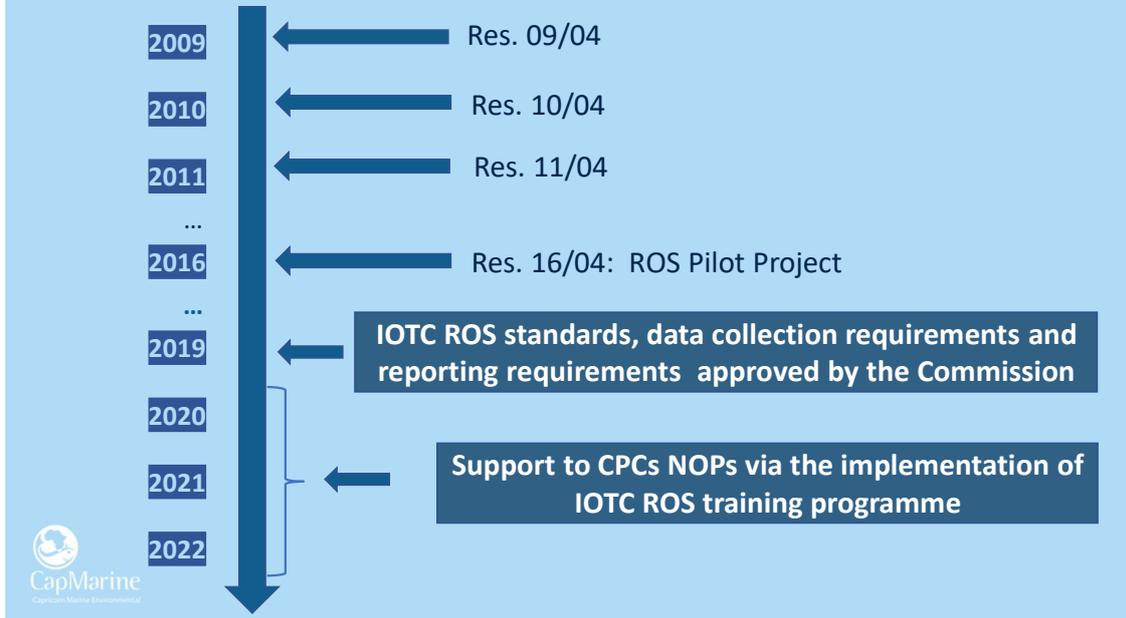


The aim of the IOTC ROS is to “collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area of competence”. This will provide independent, reliable, verified and accurate information on catch, effort, fishing practices and the fate of non-target species for a sample of all types of vessel operating within the IOTC area of competence. This information is essential to fisheries managers, research organisations and environmental agencies for stock assessments and the responsible management and conservation of living marine resources. The IOTC Regional Observer Scheme was adopted in Resolution 11/04 to support the Commission in meeting these obligations and functions.

Paragraph 1 of IOTC Resolution 11/04 *On a regional observer scheme*.



BACKGROUND ON THE IOTC ROS



1. IOTC decided to approve the implementing of Regional Observer Scheme (ROS) in 2009 via the approval of IOTC Resolution 09/04 (superseded in 2010 by Res. 10/04 and in 2011 by Res. 11/04).
2. IOTC approved OBSERVER PROGRAMME STANDARDS for the ROS in 2019.
3. IOTC places the responsibility on each of its CPC's to establish a legal mandate for their flagged vessels to accommodate observers.
4. IOTC places the responsibility on each of its CPC's to develop and coordinate its national observer programme (NOP)
5. IOTC provides support to CPCs in implementing National Observer Programme and in standardizing data collection to ensure data quality.



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OBJECTIVES OF THE IOTC ROS

1. Assist CPCs to meet its obligations to IOTC in terms of monitoring fisheries activities at-sea through scientific data collection and reporting.
2. Support the current efforts of CPCs in establishing an at-sea scientific observer programme by:
 - Facilitating the training of onboard human observers through the delivery of a comprehensive and standardised training programme for observers;
 - Facilitating the training of observer programme managers.
 - Provision of an electronic data collection & management system to facilitate the input, processing, validation and reporting of observer data



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ANY QUESTIONS?



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