





# 1st WORKSHOP ON CONNECTING THE IOTC SCIENCE AND MANAGEMENT PROCESSES (SMWS01)

Reporting and Species Executive Summaries

INDIAN OCEAN TUNA COMMISSION
Secretariat





1) Prior to 2010, Members of the Commission called upon the Scientific Committee to improve the way in which it provides advice to the Commission as well as the overall format of its reports and those of its subsidiary bodies.

2) Those calls were made due to the lack of consistency and readability of the reports which has lead to the limited uptake of, or misinterpretation of scientific advice.





Standardisation of IOTC Working Party and Scientific Committee report terminology

SC16.07 (para. 23) The SC **ADOPTED** the reporting terminology contained in Appendix IV and **RECOMMENDED** that the Commission considers adopting the standardised IOTC Report terminology, to further improve the clarity of information sharing from, and among its subsidiary bodies.





# HOW TO INTERPRET TERMINOLOGY CONTAINED IN THIS REPORT

Level 1: From a subsidiary body of the Commission to the next level in the structure of the Commission:

RECOMMENDED, RECOMMENDATION: Any conclusion or request for an action to be undertaken, from a subsidiary body of the Commission (Committee or Working Party), which is to be formally provided to the next level in the structure of the Commission for its consideration/endorsement (e.g. from a Working Party to the Scientific Committee; from a Committee to the Commission). The intention is that the higher body will consider the recommended action for endorsement under its own mandate, if the subsidiary body does not already have the required mandate. Ideally this should be task specific and contain a timeframe for completion.





# HOW TO INTERPRET TERMINOLOGY CONTAINED IN THIS REPORT

Level 2: From a subsidiary body of the Commission to a CPC, the IOTC Secretariat, or other body (not the Commission) to carry out a specified task:

**REQUESTED**: This term should only be used by a subsidiary body of the Commission if it does not wish to have the request formally adopted/endorsed by the next level in the structure of the Commission. For example, if a Committee wishes to seek additional input from a CPC on a particular topic, but does not wish to formalise the request beyond the mandate of the Committee, it may request that a set action be undertaken. Ideally this should be task specific and contain a timeframe for the completion.





# HOW TO INTERPRET TERMINOLOGY CONTAINED IN THIS REPORT

Level 3: General terms to be used for consistency:

**AGREED**: Any point of discussion from a meeting which the IOTC body considers to be an agreed course of action covered by its mandate, which has not already been dealt with under Level 1 or level 2 above; a general point of agreement among delegations/participants of a meeting which does not need to be considered/adopted by the next level in the Commission's structure.

**NOTED/NOTING:** Any point of discussion from a meeting which the IOTC body considers to be important enough to record in a meeting report for future reference.





# HOW TO INTERPRET TERMINOLOGY CONTAINED IN THIS REPORT

Any other term: Any other term may be used in addition to the Level 3 terms to highlight to the reader of and IOTC report, the importance of the relevant paragraph. However, other terms used are considered for explanatory/informational purposes only and shall have no higher rating within the reporting terminology hierarchy than Level 3, described above (e.g. **CONSIDERED**; **URGED**; **ACKNOWLEDGED**).





# **Species Executive Summaries**

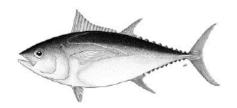
1) In 2011, the IOTC species Executive Summaries were thoroughly revised, and continue to be refined to ensure information is presented in a readably digestible format by policy makers.





#### **EXECUTIVE SUMMARY: BIGEYE TUNA**





#### Status of the Indian Ocean bigeye tuna (BET: Thunnus obesus) resource

**TABLE 1**. Bigeye tuna: Status of bigeye tuna (*Thunnus obesus*) in the Indian Ocean

Area <sup>1</sup>	Indicators		2013 stock status <sup>2</sup> determination
	Catch in 2012: Average catch 2008–2012:		
Indian Ocean		132 t (98.5–207 t) <sup>3</sup> 0.42 (0.21–0.80) <sup>3</sup>	
	$\mathrm{SB}_{2012}/\mathrm{SB}_{\mathrm{MSY}}$ :	$1.44 (0.87-2.22)^3$	
	SB <sub>2012</sub> /SB <sub>0</sub> :	$0.40 (0.27-0.54)^3$	

<sup>&</sup>lt;sup>1</sup>Boundaries for the Indian Ocean stock assessment are defined as the IOTC area of competence.

<sup>&</sup>lt;sup>3</sup>The point estimate is the median of the plausible models investigated in the 2013 SS3 assessment

The Fermi community is the Francisco means in the Santa i				
Colour key	Stock overfished(SB <sub>year</sub> /SB <sub>MSY</sub> < 1)	Stock not overfished (SB <sub>year</sub> /SB <sub>MSY</sub> ≥ 1)		
Stock subject to overfishing(F <sub>year</sub> /F <sub>MSY</sub> > 1)				
Stock not subject to overfishing (F <sub>year</sub> /F <sub>MSY</sub> ≤ 1)				

<sup>&</sup>lt;sup>2</sup>The stock status refers to the most recent years' data used in the assessment.





#### INDIAN OCEAN STOCK - MANAGEMENT ADVICE

Stock status. A new stock assessment was carried out in 2013. The 2013 stock assessment model results did not differ substantively from the previous (2010 and 2011) assessments; however, the final overall estimates of stock status differ somewhat due to the revision of the catch history and updated standardised CPUE indices. All the runs (except 2 extremes) carried out in 2013 indicate the stock is above a biomass level that would produce MSY in the long term (i.e.  $SB_{2012}/SB_{MSY} > 1$ ) and in all runs that current fishing mortality is below the MSY-based reference level (i.e.  $F_{2012}/F_{MSY} < 1$ ) (Table 1 and Fig. 1). The median value of MSY from the model runs investigated was 132,000 t with a range between 98,000 and 207,000 t. Current spawning stock biomass was estimated to be 40% (Table 1) of the unfished levels. Catches in 2012 ( $\approx 115,800$  t) remain lower than the estimated MSY values from the 2013 stock assessments (Table 1). The average catch over the previous five years (2008–12;  $\approx 107,600$  t) also remains below the estimated MSY. In 2012 catch levels of bigeye tuna increased markedly ( $\sim 24\%$  over values in 2011), especially longline catches. On the weight of stock status evidence available, the bigeye tuna stock is therefore **not overfished**, and is **not subject to overfishing**.

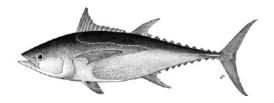
Refer to pdf of actual executive summary





#### **EXECUTIVE SUMMARY: LONGTAIL TUNA**





#### Status of the Indian Ocean longtail tuna (LOT: Thunnus tonggol) resource

**TABLE 1.** Longtail tuna: Status of longtail tuna (*Thunnus tonggol*) in the Indian Ocean

Area <sup>1</sup>	Indicators		2013 stock status determination
	Catch <sup>2</sup> 2012: Average catch <sup>2</sup> 2008–2012:		
Indian Ocean	MSY:	110,000–123,000 t	
	$F_{2011}/F_{MSY}$ :	1.11–1.77	
	$B_{2011}/B_{MSY}$ :		
	SB <sub>2011</sub> /SB <sub>0</sub> :		

<sup>&</sup>lt;sup>1</sup>Boundaries for the Indian Ocean stock assessment are defined as the IOTC area of competence.

<sup>&</sup>lt;sup>2</sup>Nominal catches represent those estimated by the IOTC Secretariat. If these data are not reported by CPCs, the IOTC Secretariat estimates total catch from a range of sources including: partial catch and effort data; data in the FAO FishStat database; catches estimated by the IOTC from data collected through port sampling; data published through web pages or other means; data reported by other parties on the activity of vessels; and data collected through sampling at the landing place or at sea by scientific observers.

Colour key	Stock overfished(SB <sub>year</sub> /SB <sub>MSY</sub> < 1)	Stock not overfished (SB <sub>year</sub> /SB <sub>MSY</sub> ≥ 1)
Stock subject to overfishing(F <sub>year</sub> /F <sub>MSY</sub> > 1)		
Stock not subject to overfishing (F <sub>year</sub> /F <sub>MSY</sub> ≤ 1)		
Not assessed/Uncertain		





#### INDIAN OCEAN STOCK - MANAGEMENT ADVICE

Stock status. There remains considerable uncertainty about stock structure and about the total catches in the Indian Ocean. Stock Reduction Analysis techniques indicate that the stock is being exploited at rates that exceed  $F_{MSY}$  in recent years. Whether a four quadrant stock structure of catches in the Indian Ocean or a one stock assumption is used in the analysis, the conclusions remain the same. However, further exploratory analysis of the data available should be undertaken in preparation for the next WPNT meeting before the assessment results are used for stock status determination. More traditional methods of stock assessment need to be conducted by developing indices of abundance using catch and effort series from I.R. Iran and Indonesia. Given estimated values of current biomass are above the estimated abundance to produce  $B_{MSY}$  in 2011, and that fishing mortality has exceeded  $F_{MSY}$  values in recent years, the stock is considered to be **not overfished**, but **subject to overfishing** (Table 1).

Refer to pdf of actual executive summary





Recommendation 14/07 To standardise the presentation of scientific information in the annual scientific committee report and in working party reports

#### Refer to actual Recommendation from the Commission

- Stock status
- Model outlooks
- Data quality and limitations of the assessment models
- Alternative approach (data poor stocks)
- Additional information and review of the structure and templates of the 'Executive Summaries'





#### Discussion:

- How do participants currently use the IOTC Executive Summaries?
- Is the level of detail provided to great or too small?
- Suggested alternatives?

#### **Practical:**

- Take a current Executive Summary and identify the key elements which you would ensure are communicated to your policy makers (assume you are putting together a 5 slide briefing)
- Material to be provided for 3 IOTC species