



### INDIAN OCEAN TUNA COMMISSION

Working Party on Tropical Tuna – 7<sup>th</sup> meeting

Phuket, Thailand, 18, 19, 21 and 22 July 2005

### PROVISIONAL AGENDA

### 1. REVIEW OF THE DATA

Review of the statistical data available for the tropical tuna species (Secretariat)

# 2. NEW INFORMATION ON BIOLOGY AND STOCK STRUCTURE OF TROPICAL TUNAS

Review new information on the biology, stock structure of tropical tunas, their fisheries and associated environmental data (Secretariat)

• Papers as provided by Members

### 3. REVIEW OF NEW INFORMATION ON THE STATUS OF YELLOWFIN

Investigations on the cause of the extraordinary large catches on YFT in 2003, 2004

- Examination of YFT catches and environmental data (Secretariat)
- Other contributions

Data for input into stock assessments:

- Catch and effort
  - o PS and LL data
  - How to treat [lack of] artisanal and other data in Stock assessment
- Catch at size
- Growth curves and revised age-length key
- · Catch at age
- CPUE
  - o Raw CPUE indices (PS and LL)
  - o Standardised CPUE indices (PS and LL)

o factors influencing CPUE — such as environment and technology

Stock assessments

Selection of Stock Status indicators

# 4. REVIEW OF NEW INFORMATION ON THE STATUS OF BIGEYE AND SKIPJACK

Review of catch trends (Secretariat), CPUE, mean weight etc (as provided by Members)

## 5. DEVELOP TECHNICAL ADVICE ON THE STATUS OF THE STOCKS

Yellowfin

Based on the above information

### 6. RESEARCH RECOMMENDATIONS AND PRIORITIES

• Planning how to (intersessionally) update the BET stock assessment and advice (as requested by the Commission at S9)

### 7. OTHER BUSINESS

• Update: Regional Tuna Tagging Programme – Indian Ocean (Secretariat)

## Note to participants that intend to present analyses and assessments.

The list below outlines when the baseline data for YFT will be available for your analyses. It is important that scientists conduct their analyses on the same datasets

### **DATA**

Data: 1950 - 2003	Who is updating	Availability	Comments
Catch and effort	Secretariat	On IOTC website	Includes Taiwan, China data covering 1991-1993 for the first time
Nominal catch	Secretariat	On IOTC website	
Catch at size	Taiwan,China, EU and Japan	TBA (mid June), Secretariat will collate raw data and Vivi will update time series and send to the Secretariat to post	Includes Taiwan, China data covering 1980-2002 for the first time
Growth	Mr Viera by 15 May	Please advise	
Age length key	Mr Viera by 15 May	Please advise t	
Catch at age	Please advise	Please advise	
CPUE			
Raw LL, PS	see below	Plse advise when these might be available	
Standardised LL	Japan/Tawian,China	might be available	
Standardised PS	Alain		
Biological / fisheries inputs:			
Natural mortality	?		
Maturity at age			
Selectivities	? Using the method used for BET (2004) – based on a fwd VPA	Pilar	
Mean length	?		
Mean weight	?		
Other indicators	The 2003 YFT assessment described the following indicators:		
	Trends in total catch	Secretariat	
	<ul><li>Trends in CPUE</li><li>Trends in mean weight</li></ul>	obtain from above	

	It is important that stock assessments use the above, finalised data	??	
Stock assessments	ASPM     Bayesian surplus production mod     A Bayesian age-structure product Again this will accept multiple indic     An exploratory application of CA     Others welcome	ge classes, juveniles and adults.	

Please note: If you are going to propose that certain text and figures should be in the final report then you will need to have them available electronically (at the meeting) so that the Secretariat can easily insert them in to the report. Also be prepared to provide some text to describe your 'favoured' figure.

# REMINDER ABOUT 2004 WPTT/SC RECOMMENDATIONS FOR YELLOWFIN

- Taking note of the problems which arose during the last yellowfin working group regarding the models used/agreed, and in order to improve the efficiency of the next assessment, the WPTT encourages scientists to agree on the methods and inputs to be used and prepare this work before the venue of the working group.
- Taking note of the extraordinary catches of yellowfin observed in 2003, the WPTT expressed its concern on the consequences it may have for the stock and consequently recommends that the following actions be implemented:
- Carefully follow the yellowfin catches by size taken by purse seiners and as far as possible by longliners in 2004.
- Update the biological information on yellowfin growth, spawning and sex ratio at size in the eastern and western Indian Ocean.
- Build a database with environmental information (sea surface temperature, thermocline depth, phytoplankton, Natosquilla, others?) in the western Indian Ocean and analyse this data base (including results from models) in order to understand the origin of the large yellowfin catches in 2003.
- Understand and evaluate the potential effects on the European Union purse seiners efficiency (for FAD and free schools) of the new long range sonar.
- Estimate the potential recent changes in year class strength of yellowfin.
- Evaluate the changes in the 2003/2004 overall geographical distribution (from longline, purse seine and artisanal fleets data) of adult yellowfin stock and

- identify concentration areas in the western Indian Ocean, as this concentration may tend to increase catchability.
- Analyse and synthesize all the hypothesis that could explain the very high 2003 catches of yellowfin.
- Run a full stock assessment that will evaluate the yellowfin stock status in 2003, including a retrospective analysis.
- Further research on methods leading to the standardization of longline (regular and deep longline differentiation, targeting, changes in fishing efficiency) and purse seine (FAD vs. free schools, changes in fishing efficiency) CPUEs needs also to be done in the case of yellowfin.