

REVIEW OF CURRENT CONSERVATION AND MANAGEMENT MEASURES RELATING TO TEMPERATE TUNA SPECIES

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PURPOSE

To encourage participants at the 5th Working Party on Temperate Tunas (WPTmT05) to review some of the existing Conservation and Management Measures (CMM) relating to temperate tunas, noting the CMMs contained in document IOTC–2014–WPTmT05–04; and as necessary to 1) provide recommendations to the Scientific Committee on whether modifications may be required; and 2) recommend whether other CMMs may be required.

BACKGROUND

In addition to the CMMs outlined in document IOTC–2014–WPTmT05–04, temperate tunas in the Indian Ocean are currently subject to several other Conservation and Management Measures adopted by the Commission. In an attempt to focus the efforts of the WPTmT, it is our aim to have participants annually review one of the key CMMs based on scientific advice, or which match current requests from the Commission. At next year's meeting, an alternative CMM may be presented for discussion.

Resolution 13/09 *[On the conservation of albacore caught in the IOTC area of competence](#)*. This Resolution requires the Scientific Committee to assess the coverage and the quality of catch and effort data made available by CPCs targeting albacore, and to advise the Commission before the end of 2014 on target and limit reference points (LRPs, TRPs) which may be used when assessing the albacore stock status and when evaluating potential management measures. In addition, the Scientific Committee, through its Working Parties on Temperate Tunas (WPTmT) and on Methods (WPM), is required to examine and evaluate potential management measures which would allow the achievement of the conservation and optimal utilization of the albacore stock.

Resolution 13/10 *[On interim target and limit reference points and a decision framework](#)*. This Resolution establishes the general principles that would guide the application of the precautionary approach in the context of IOTC, including the adoption of provisional reference points that would apply until such time as the Commission decides to update the reference points after considering the advice of the Scientific Committee following the management strategy evaluation exercise. The Resolution also considers a decision framework to facilitate management measures that are currently being undertaken by the Commission. This Resolution superseded Recommendation 12/14.

DISCUSSION

As part of best practice, the WPTmT is obliged to review existing CMMs and consider whether their science-based components need to be responded to, modified or updated. If this is the case, then the WPTmT should provide clear, science-based recommendations for the SC's consideration.

RECOMMENDATION

Noting the information contained in working paper IOTC–2014–WPTmT05–04, the WPTmT should aim to provide recommendations to the SC that 1) address any requests from the Commission, 2) outline whether changes to Resolutions 13/09 and 13/10 may be required, and/or 3) to recommend whether other CMMs may be required.

APPENDICES

[Appendix A](#): Resolution 13/09 *[On the conservation of albacore caught in the IOTC area of competence](#)*

[Appendix B](#): Resolution 13/10 *[On interim target and limit reference points and a decision framework](#)*

APPENDIX A**RESOLUTION 13/09****ON THE CONSERVATION OF ALBACORE CAUGHT IN THE IOTC AREA OF COMPETENCE****The Indian Ocean Tuna Commission (IOTC),**

CONSIDERING that albacore (*Thunnus alalunga*) is one of the most important species managed by IOTC;

NOTING that the IOTC Working Party on Temperate Tunas and the IOTC Scientific Committee recognised that the current level of catches is likely to result in further declines in albacore biomass, productivity and catch-per-unit-effort (CPUE);

FURTHER NOTING that the impacts of the piracy in western Indian Ocean have resulted in the displacement of a substantial portion of the longline fishing effort into the traditional albacore fishing grounds in the southern and eastern Indian Ocean and therefore it is likely that catch-and-effort on albacore will decline in the future unless management action is taken;

BEARING IN MIND that the albacore stock in the Indian Ocean is currently subject to overfishing (current fishing mortality > fishing mortality allowing the stock to deliver MSY) and that the fishing mortality rate needs to be reduced below the 2010 level to ensure that the fishing mortality in 2020 does not exceed the fishing mortality allowing the stock to deliver MSY;

CONSIDERING the recommendations of the 15th Session of the IOTC Scientific Committee held in Mahé, Seychelles from 13–15 December 2012;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that the Commission shall request the IOTC Scientific Committee:

1. To compile, review, discuss and assess, during the year 2014 and with the support of all the concerned CPCs, the coverage and the quality of all available data on catches and fishing effort related to albacore fisheries in the IOTC area of competence;
2. Through its IOTC Working Party on Temperate Tunas (WPTmT), to examine in relevant 2014 sessions the state of albacore stock, by considering even common working sessions with the ICCAT scientific community to improve the knowledge on the interrelation between the Indian Ocean and Atlantic albacore populations; and
3. To advise the Commission, by end of 2014 at the latest:
 - a) On Target Reference Points (TRPs) and Limit Reference Points (LRPs) used when assessing the albacore stock status and when establishing the Kobe plot and Kobe matrices;
 - b) On potential management measures having been examined through the Management Strategy Evaluation (MSE) process. These management measures will therefore have to ensure the achievement of the conservation and optimal utilisation of stocks as laid down in article V of the Agreement for the establishment of the IOTC and more particularly to ensure that, in as short a period as possible and no later than 2020, (i) the fishing mortality rate does not exceed the fishing mortality rate allowing the stock to deliver MSY and (ii) the spawning biomass is maintained at or above its MSY level.

APPENDIX B

RESOLUTION 13/10

ON INTERIM TARGET AND LIMIT REFERENCE POINTS AND A DECISION FRAMEWORK

The Indian Ocean Tuna Commission (IOTC),

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

RECALLING that Article 6, paragraph 3, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA), establishes the application of precautionary reference points as a general principle for sound fisheries management;

FURTHER RECALLING that Annex II of UNFSA provides guidelines for the application of precautionary reference points in the conservation and management of straddling fish stocks and highly migratory fish stocks, including the adoption of provisional reference points when information for establishing reference points is absent or poor;

NOTING that Article 7.5.3 of the FAO Code of Conduct for Responsible Fisheries also recommends the implementation of stock specific target and limit reference points, *inter alia*, on the basis of the precautionary approach;

NOTING that recommendations 37 and 38 of the Performance Review Panel, adopted by the Commission as Resolution 09/01, indicate that pending the amendment or replacement of the IOTC Agreement to incorporate modern fisheries management principles, the Commission should implement the precautionary approach including, *inter alia*, precautionary reference points, as set forth in the UNFSA;

NOTING [Resolution 12/01](#) *On the implementation of the precautionary approach* that recommends adoption of provisional reference points, and that the IOTC Scientific Committee proposed provisional values at its 14th Session;

RECALLING ALSO that the IOTC Scientific Committee has initiated a process leading to a management strategy evaluation (MSE) process to improve upon the provision of scientific advice on Harvest Control Rules (HCRs);

ACKNOWLEDGING that continuing dialog between scientists and managers is necessary to define appropriate HCRs for the IOTC tuna and tuna-like stocks;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. When assessing stock status and providing recommendations to the Commission, the IOTC Scientific Committee should apply the following interim target and limit reference points for the species of tuna and tuna-like species listed in **Table 1**. B_{MSY} refers to the biomass level for the stock that would produce the Maximum Sustainable Yield; F_{MSY} refers to the level of fishing mortality that produces the Maximum Sustainable Yield.

Table 1. Interim target and limit reference points.

Stock	Target Reference Point	Limit Reference Point
Albacore	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.40 B_{MSY}; F_{LIM} = 1.40 F_{MSY}$
Bigeye tuna	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.50 B_{MSY}; F_{LIM} = 1.30 F_{MSY}$
Skipjack tuna	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.40 B_{MSY}; F_{LIM} = 1.50 F_{MSY}$
Yellowfin tuna	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.40 B_{MSY}; F_{LIM} = 1.40 F_{MSY}$
Swordfish	$B_{MSY}; F_{MSY}$	$B_{LIM} = 0.40 B_{MSY}; F_{LIM} = 1.40 F_{MSY}$

2. These interim target and limit reference points shall be assessed and further reviewed by the IOTC Scientific Committee and the results shall be presented to the Commission for adoption of species-specific reference points. If applicable, the IOTC Scientific Committee should endeavour to apply the interim reference points in the provision of advice on the status of stocks and on recommendations for management measures.
3. The IOTC Scientific Committee shall assess, as soon as possible and more particularly through the management strategy evaluation process (MSE) process, the robustness and the performance of the interim

reference points, specified under paragraph 1 and other reference points based on the guidelines of International agreements taking into account: i) the nature of these reference points – target or limits, ii) the best scientific knowledge on population dynamics and on life-history parameters, iii) the fisheries exploiting them, and iv) the various sources uncertainty.

4. In addition the IOTC Scientific Committee shall develop and assess potential harvest control rules (HCRs) to be applied, considering the status of the stocks against the reference points assessed in paragraph 3 for albacore, bigeye tuna, skipjack tuna, yellowfin tuna and swordfish. Based on the results of the MSE and considering the guidelines set forth in the UNFSA and in Article V of the IOTC Agreement, the IOTC Scientific Committee will recommend to the Commission HCRs for these tuna and tuna-like species, which among other factors, taking account of the following objectives:
 - a) For stocks which assessed status will match with the lower right (green) quadrant of the Kobe Plot, aim at maintaining the stocks in a high probability within this quadrant;
 - b) For stocks which assessed status will match with the upper right (orange) quadrant of the Kobe Plot, aim at ending overfishing with a high probability in as short a period as possible;
 - c) For stocks which assessed status will match with the lower left (yellow) quadrant of the Kobe plot, aim at rebuilding these stocks in as short a period as possible;
 - d) For stocks which assessed status will match with the upper left quadrant (red), aim at ending overfishing with a high probability and at rebuilding the biomass of these stocks in as short a period as possible.
5. Bearing in mind Article 64 of UNCLOS and Article 8 of UNFSA, the entirety of this Resolution is subject to Article XVI (Coastal States' Rights) of the IOTC Agreement for the Establishment of the Indian Ocean Tuna Commission, and Articles 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;
6. This Resolution supersedes Recommendation 12/14 *On interim target and limit*