



**Australian Government**

**Australian Fisheries Management Authority**

# **Tropical Tuna and Billfish Fisheries Resource Assessment Group (TTRAG) 33**

**Minutes**

**14-15 September 2021**

**Video Conference**

# Contents

<b>1</b>	<b>Preliminaries .....</b>	<b>3</b>
1.1.	Welcome and Apologies .....	3
1.2.	Declaration of Interest .....	4
1.3.	Adoption of Agenda.....	6
1.4.	Adoption of Minutes .....	6
1.5.	Actions Arising.....	6
1.6.	Out of session Correspondence.....	11
<b>2</b>	<b>Review of Fishery Performance .....</b>	<b>11</b>
2.1.	Catchwatch .....	11
2.2.	Current catches and effort in the domestic fishery.....	11
<b>3</b>	<b>Review of Fishery Indicators .....</b>	<b>12</b>
3.1.	South West Pacific Data – update (CSIRO) .....	12
3.2	Economic indicators.....	12
3.3	ETBF Indicators.....	13
3.4.	ETBF Broadbill Swordfish RBCC (CSIRO) .....	14
3.5.	Finalise RAG recommendations for TTMAC .....	15
<b>4</b>	<b>Other business.....</b>	<b>17</b>
	<b>List of attachments .....</b>	<b>18</b>
	<b>APPENDIX A .....</b>	<b>19</b>
	<b>APPENDIX B .....</b>	<b>21</b>

# 1 Preliminaries

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## 1.1. Welcome and Apologies

1. The Chair, Dr Cathy Dichmont, welcomed members and opened the meeting at 9:05am with an acknowledgement of country.
2. The major outputs of this meeting are two documents providing TTRAG advice to TTMAC for consideration in recommending TACCs for the ETBF and WTBF (Attachments 1 and 2).
3. The following participants were present at the meeting:

<b>Present</b>	
Dr Cathy Dichmont	Chair
Mr Josh Fielding	AFMA member
Dr Rich Hillary	Scientific member, CSIRO
Mr Gary Heilmann	Industry member
Dr Julian Pepperell	Recreational fishing member
Dr Ian Knuckey	Scientific member
Dr Rob Campbell	Scientific member, CSIRO
Mr Pavo Walker	Industry Member
Mr Terry Romaro	Industry member (western fisheries, attends July or online meetings only)
Mr James Larcombe	Scientific member, ABARES
Mr Paul Williams	Industry invited participant
<b>Invited Participants/Observers</b>	
Mr Phil Ravanello	Tuna Australia, Project Manager
Ms Ann Preece	CSIRO
Mr Trent Timmiss	AFMA
Mr Robert Curtotti	ABARES
Mr Michael Dylewski	ABARES
Dr Ashley Williams	CSIRO
<b>Executive Officer</b>	
Ms Sara Murphy	A/g TTRAG Executive Officer

4. Apologies were received prior to the meeting from David Ellis.

## 1.2. Declaration of Interest

5. The Chair asked all participants present at the meeting to declare any conflict of interest with the agenda items. Each participant with a declared conflict of interest was asked to leave the teleconference while the remaining members discussed their individual claims.

Member/participant/Observer	Declared Interests
<b>Dr Cathy Dichmont (Chair)</b>	Has a consulting company, but has no pecuniary interests in the tuna fisheries. Is the current Commonwealth Research Advisory Committee (ComRAC) chair.
<b>Mr Josh Fielding</b>	Employee of AFMA, which includes a salary. Is the Manager of the tropical tuna fisheries. No pecuniary interest in tropical tuna fisheries.  <b><i>No conflict of interest declared.</i></b>
<b>Mr Trent Timmiss</b>	Employee of AFMA, which includes a salary. Is the Senior Manager of the Tuna and International Section. No pecuniary interest in tropical tuna fisheries.  <b><i>No conflict of interest declared.</i></b>
<b>Ms Sara Murphy</b>	Employee of AFMA, which includes a salary. Acting as Executive Officer for TTRAG, but has no pecuniary interest in Australian tropical tuna fisheries.  <b><i>No conflict of interest declared.</i></b>
<b>Mr James Larcombe</b>	Employee of ABARES, involved in fisheries research, primarily through engagement with the Western Central Pacific Fisheries Commission. Has no pecuniary interest in the Australian Tropical Tuna Fisheries.
<b>Dr Robert Campbell</b>	Independent fisheries consultant with no pecuniary interest in Australian tropical tuna fisheries. Former employee of CSIRO and previously engaged in research on both the Eastern and Western Tuna and Billfish Fisheries as former PI of the following research project: "Data management, provision of fishery indicators and implementation of the harvest strategies for Australia's tropical tuna fisheries". Currently serves as convenor of the Management Issues Theme for the Scientific Committee for the Western Central Pacific Fisheries Commission.
<b>Dr Rich Hillary</b>	Employee of CSIRO, no pecuniary interest in Australian tropical tuna fisheries. Is the PI for the Management Strategy Evaluation (MSE) project for the tropical tuna and billfish species.

<b>Dr Ian Knuckey</b>	Has a consulting company with interests in electronic reporting in the tuna fisheries, and is a member on several other AFMA Committees. Has previously worked on a project on FADs in Tasmania and work relating to the Commonwealth resource sharing framework. Is working on a recreational and indigenous capacity building project with DAWE.
<b>Dr Julian Pepperell</b>	Independent fisheries consultant and representative of the recreational fishing sector. Is currently undertaking research into gamefishing. Is involved in projects including the monitoring of fish landed at game fishing tournaments and pop-up satellite tagging on juvenile Black Marlin.
<b>Dr Ashley Williams</b>	Employee of CSIRO, no pecuniary interest in Australian tropical tuna fisheries. Is the PI for the project on <i>Data Management, Assessment and implementation of Harvest Strategy for Australia's Tropical Tuna and Billfish Fisheries</i> .
<b>Ms Ann Preece</b>	Employee of CSIRO, no pecuniary interest in Australian tropical tuna fisheries. Is the PI for the Management Strategy Evaluation (MSE) project for the tropical tuna and billfish species.
<b>Mr Phil Ravello</b>	Is currently the program manager of the industry association, Tuna Australia which includes a salary paid by industry.  <b><i>Declared an interest in Agenda item 3</i></b>
<b>Mr Gary Heilmann</b>	Industry member, director of a processing company, no longer holds ETBF boat or quota SFRs.  <b><i>Declared an interest in Agenda item 3</i></b>
<b>Mr Pavo Walker</b>	Owns several ETBF boat SFRs, and ETBF quota SFRs for all species. Holds a Coral Sea permit and minor line permit.  <b><i>Declared an interest in Agenda item 3,</i></b>
<b>Mr Paul Williams</b>	Director of a company that holds an ETBF boat SFR, ETBF quota SFRs, and holds a Commonwealth fish receiver's permit.  <b><i>Declared an interest in Agenda item 3</i></b>
<b>Mr Terry Romaro</b>	Director of a company that owns Eastern Tuna and Billfish Fishery (ETBF) boat statutory fishing rights (SFRs), minor line SFRs, ETBF longline SFRs, Western Tuna and Billfish Fishery (WTBF) boat SFRs, WTBF longline SFRs, Western Skipjack Tuna Fishery (WSTF) purse seine permit, Small Pelagic Fishery (SPF) purse seine, mid-water trawl SFRs, and SPF quota SFRs. Shareholder of a company that owns shares in a proposal to fish with foreign longliners in the WTBF. Industry member on

	<p>Southern Bluefin Tuna (SBT) and Tropical Tuna MAC , Invited participant for TTRAG, and industry representative at the Commission for the Conservation of SBT (CCSBT) &amp; IOTC. Invited participant for squidRAG and squid concession holder. Director of a company who owns a fish processing facility in Port Lincoln.</p> <p><b><i>Declared an interest in Agenda item 3.</i></b></p>
<b>Mr Robert Curtotti</b>	<p>Employee of ABARES, involved in fisheries economic research related to the Eastern Tuna and Billfish Fishery. Has no pecuniary interest in the Australian Tropical Tuna Fisheries.</p> <p><b><i>No conflict of interest declared.</i></b></p>
<b>Mr Michael Dylewski</b>	<p>Employee of ABARES, involved in fisheries economic research related to the Eastern Tuna and Billfish Fishery. Has no pecuniary interest in the Australian Tropical Tuna Fisheries.</p> <p><b><i>No conflict of interest declared.</i></b></p>

6. In all cases where a member or observer declared a conflict of interest, the participant left the teleconference. The remaining members unanimously agreed they were permitted to participate in the item of discussion, noting the expertise of the individuals and benefits of these members contributing to discussions.

### **1.3. Adoption of Agenda**

7. The draft meeting agenda was circulated on 25 August 2021 and is detailed in Appendix A.

### **1.4. Adoption of Minutes**

8. The TTRAG noted that minor comments received out of session from attendees on the TTRAG 32 meeting minutes were incorporated into the draft at Attachment 1.4a of the meeting papers.
9. One further amendment to the TTRAG 32 minutes was provided. Mr Terry Romano was present at TTRAG 32 and his name was added to the attendance list. Following this the minutes were endorsed as final.

### **1.5. Actions Arising**

10. The RAG noted the status of action items from previous meetings (Table 1) and action items specifically related to CPUE (Table 2). The comments from the RAG on the actions arising can be found in Tables 1 and 2 below.
11. A summary of actions arising from this meeting is included at Appendix B.

Table 1 Status of actions arising from previous TTRAG meetings (Items marked \* to be discussed and reviewed by TTRAG).

	Action	Meeting raised	Responsibility	Status at TTRAG32	TTRAG 33 comments
1	AFMA to revise the WTBF Indicators template to include subregional IOTC information, recreational fishery information, summary statements and historic catch trends for foreign fishing in the EEZ.	TTRAG 29	AFMA	<b>ONGOING:</b> AFMA will look to incorporate TTRAG’s suggestions for the WTBF indicators paper at the TTRAG meeting in September.	<b>Noted. The RAG noted that the template will be reviewed and refined in the coming year.</b>
2	In relation to the ETBF data dictionary:  a) CSIRO to provide AFMA with a copy of the CSIRO Tuna Legacy Data as described in the Data Dictionary.  b) AFMA to provide more details for the ADC line tables to CSIRO	TTRAG 29	AFMA	a) <b>COMPLETE</b> Since TTRAG 31, AFMA has confirmed they have a copy of the Tuna Legacy database.  b) <b>ONGOING:</b> The ETBF Data Dictionary will be updated with new information on the new AFMA e-logs at the next FMS data strategy chapter update.	<b>Noted. No further progress</b>  <b>Noted.</b>
3	AFMA to consolidate the list of action items in relation to CPUE analysis and handover to the incoming PI of the Data Management for Tuna Fisheries contract for review	TTRAG 31	AFMA	<b>COMPLETE:</b> The CPUE action item list is provided in Table 2 below.	<b>Noted. Completed</b>

	Action	Meeting raised	Responsibility	Status at TTRAG32	TTRAG 33 comments
4	AFMA to prepare a summary of what is recorded with respect to Shark/Whale depredation in logbooks and present findings to the RAG for discussion.	TTRAG 31	AFMA	<b>COMPLETE:</b> A depredation data summary is to be presented under Agenda item 6.1	<b>Noted.</b>
5	CSIRO to produce the next iteration of Striped Marlin projections for TTRAG's July meeting	TTRAG 31	CSIRO	<b>COMPLETE:</b> CSIRO will be reporting on the updates to the harvest strategy at Agenda item 7	<b>Noted. Not addressed at September meeting</b>
6	AFMA to organise a small data sub-group consisting of AFMA, CSIRO and Dr Robert Campbell. The data sub-group to meet prior to the July RAG meeting and look preliminary data summaries and identify any issues that may arise in the CPUE standardisations.	TTRAG 31	AFMA	<b>COMPLETE:</b> The data sub-group met on 22 June 2021. The RAG will be provided with the outcomes of the meeting during the AFMA management update under Agenda Item 2.1	<b>Noted. Not addressed at September meeting</b>
7	AFMA to provide CSIRO with the locations of recreational fishing FADs off the southeast Queensland coast for consideration in future CPUE standardisations.	TTRAG 31	AFMA	<b>ONGOING:</b> AFMA is yet to receive the co-ordinates of the deployed FADs from QLD Fisheries.	<b>Noted.</b>
8	AFMA to update the Significant Events spreadsheet with the suggestions made by the RAG	TTRAG 32	AFMA	<b>ONGOING:</b> significant events spreadsheet not included in agenda for this meeting, will be reported in March 2022	<b>Will go to the next TTRAG meeting – March 2022.</b>



Table 2 CPUE related action items

Item	Meeting raised	Status at TTRAG 32	TTRAG comments
CPUE analyses: CSIRO to contact ABARES scientists regarding their 'clustering' analyses work to determine if it may provide insights for improving the CPUE analyses (and vice versa).	TTRAG 21  TTRAG 22	<b>ONGOING:</b> This work is still being progressed noting a change in staff working on it at ABARES.	<b>Taken as read.</b>
CSIRO will look to explore potential changes in fishing practices (particularly with the start of set location) associated with the introduction of Marine Parks, and determine potential implications for CPUE standardisations.	TTRAG 23	<b>ONGOING:</b> CSIRO to obtain the specific boundaries of the marine parks and then will pass on to whoever within CSIRO takes on the work	<b>Taken as read.</b>
TTRAG to consider development of TDR based research and/or data collection in the ETBF to better understand and account for (in CPUE analyses) the relationship between fishing strategies (including vessel log speed, shooter speed and dropper lengths etc) and fishing depth.	TTRAG 23	<b>ONGOING:</b> Not yet actioned.	<b>Taken as read.</b>
AFMA to examine VMS data to check and verify sets reported on logbooks as having mainline lengths greater than 100km.  TTRAG to consider frequency distributions of values for all factors used in CPUE standardisations and provide advice regarding the removal of outliers.	TTRAG 24	<b>ONGOING:</b> Not yet actioned.	<b>Taken as read.</b>
TTRAG to give further consideration to additional potential fields, specifically, those required by	TTRAG 29	<b>ONGOING:</b> Not yet actioned.	<b>Taken as read.</b>

Item	Meeting raised	Status at TTRAG 32	TTRAG comments
WCPFC logbooks and ROP, relevant to collecting data on depredation, and shape of mainline set.			
AFMA to provide CSIRO with the locations of recreational fishing FADs off the southeast Queensland coast for consideration in future CPUE standardisations	TTRAG 31	<b>ONGOING:</b> Not yet actioned.	<b>Taken as read.</b>

## 1.6. Out of session Correspondence

12. The TTRAG noted the out of session correspondence between the TTRAG 32 and TTRAG 33 Meetings as provided in the written update by AFMA.

## 2 Review of Fishery Performance

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### 2.1. Catchwatch

The RAG was presented with the fishery catch data paper provided by AFMA.

**ACTION 1:** The RAG requested that AFMA add a graph showing effort (hooks) for the same period as species catch data to the Catchwatch report.

**ACTION 2:** AFMA to review and update if necessary the yellowfin catch in the Catchwatch report, noting a possible typo in the RAG paper.

### 2.2. Current catches and effort in the domestic fishery – verbal updates from scientists, industry and recreational fishing members since last RAG Meeting (July 2021)

14. Industry members and invited participants provided an update on recent fishing activity with the RAG noting that:
- Tuna Australia (TA) noted that WTBF is taking bigeye and swordfish but the fishery is still having problems getting product into Japan. Off Coffs Harbour and Nelson Bay, fishing for yellowfin and bigeye has been reasonable but condition seems to be dropping off. NSW has recently taken reasonable amounts of average quality albacore, SBT on the South Coast and a bit of yellowfin further north, and they have had poor prices but increasing amounts are going to US.
  - An operator off Queensland reported a focus on deep setting for albacore; starting to fish for US market again in LA (noting that it is really a swordfish market) but still it makes some move towards normality. Fishing quite good with strong tuna catches in the last few months but not targeting swordfish. Trying to move out of deep setting being the only tactic and resuming normality to about 20 percent.
  - Another Queensland operator noted that yellowfin quality has been good for the last two months, with reasonable catches of 35-40 kilo. Good markets available in the US on the west coast for some tuna and swordfish and SBT but there is limited freight and it is very costly. He noted that bigeye catches have been slightly better but not back to historical levels, with a fairly normal run of albacore and no marlin. All in all catches have been reasonable.
  - From the West coast it was reported that one operator is still fishing. Issues on the west coast for investors are mainly around IOTC and the marine parks in Christmas and Cocos-Keeling Islands.
  - Reporting on recreational fishing a RAG member noted that not much was happening with many events cancelled due to COVID lockdowns. He thanked Phil Ravanallo, Tuna Australia for sailfish samples he provided for a PhD genetic study.

- ABARES scientific member James Larcombe will report on WCPFC Scientific Committee at the next meeting.
- The ABARES Economic Indicators Report is to be published in late September 2021 and a link will be sent to members.

### 3 Review of Fishery Indicators

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#### 3.1. South West Pacific Data – update (CSIRO)

15. Dr Ash Williams updated the South West Pacific Data for 2021 speaking to a series of graphs and tables which members viewed online.
16. One member noted the graph showing catches by country in the South West Pacific Region saw Spain heavily represented in the swordfish catch but not represented in all the other species graphs and questioned why this would occur.
17. Dr Williams noted that it was likely due to low catches of other species which would therefore result in Spain being grouped under a general 'other countries' bar in the graph.

#### 3.2 Economic indicators

18. Michael Dylewski from ABARES reported on economic indicators for the most recent full year of data – NER for 2019-20 but also evaluated data for the first 6 months of 2021
19. In presenting the Economic Indicators, ABARES reported on a newly developed 'weighted' Economic Index and NER which they believe will better represent the multi-species nature of the ETBF.
20. One member sought an explanation of the annual indicators graphs which report on Economic performance (ABARES Surveys), questioning the inclusion of the orange portion - interest and management fees - on the 'income' part of graph. ABARES members explained that it showed total income prior to expenditure for the fishery but undertook to provide further explanation to the group.

**ACTION 3:** ABARES to provide further explanation of inputs/outputs in calculation of 'Economic performance Annual Indicators' for ETBF.

21. Having considered the full financial year calculations, the meeting then reviewed data for the first 6 months of 2021 and noted that:
  - GVP estimates are not finalised
  - Fuel prices have increased
  - During the period under review, the Australian dollar appreciated against the USD and the yen, making Australian products are more expensive in other countries
22. An Industry member asked the meeting to consider the fact that even if the gross sale price for fish was higher in the first half of the year, the freight price doubled so net fish price would be lower.

23. Meeting participants then asked if SBT catches had been included in the latest ABARES calculations of ETBF NER, GVP and catch, an inclusion which had been recommended by the RAG in 2020 because SBT is an increasingly important part of ETBF fishing activities.
24. ABARES members explained that SBT had not been included. The SBT Fishery is a considered a legally separate fishery with its own NER value and SBT catch would therefore be an 'excluded input' in calculating another fishery's NER, however ABARES will give further consideration to this situation for future RAG meetings.
25. The AFMA member summarised that since NER is used as an indicator of the economic health of the ETBF it should include all relevant catch components for income and significant input costs, including the increasingly important SBT catch.

**ACTION 4:** ABARES to pursue options to take account of SBT in the catch figures and calculations of GVP and NER for the ETBF and include SBT in future ETBF economic indicators for TTRAG considerations.

26. The Chair acknowledged exit of Robert Curtotti, following this discussion and entry of Paul Williams into the meeting at 9:30am.

### 3.3 ETBF Indicators

27. For each of the five quota species in the ETBF being; Albacore, Bigeye, Yellowfin, Swordfish and Striped Marlin - Dr Ash Williams presented data in four key areas:
  - ETBF catch trends
  - Size trend
  - CPUE trend:
  - WCPFC – Stock assessment

A summary of stock assessment outcomes is provided noting that the major outcome of this meeting the production of the attached document "TTRAG Advice for the Eastern Tuna and Billfish Fishery for the 2022 Season" which provides detailed information on each quota species.

#### ALBACORE TUNA:

28. Dr Williams noted that the CPUE for all key target species is slightly different to last presentation due to changed lunar cyclic and ocean current variables included in CPUE. An Addendum of these changes been provided to AFMA and should be circulated to the RAG. Albacore stock is considered a single species across the South Pacific and was assessed in 2021 as not over fished or subject to overfishing with the next assessment by WCPFC due in 2024.

**ACTION 5:** AFMA to circulate CSIRO Addendum to 2020 key target species CPUE presented to TTRAG 32 (July 2021).

#### BIGEYE TUNA:

29. During discussion of fleet dynamics and possible reasons for declining CPUE for sub-adults and adults, scientific members recapped for the RAG that the CPUE standardisation process does take spatial factors into account. The WCPFC bigeye stock assessment indicates that the WCPO stock is not overfished and highly likely not subject to overfishing.

#### YELLOWFIN TUNA:

30. Dr Williams noted that the most recent WCPFC stock assessment for Yellowfin tuna was done in 2020 and the overall result was that the stock was not overfished and not subject to overfishing.

#### BROADBILL SWORDFISH:

31. Dr Williams explained that SPC is developing a new approach for capturing uncertainty in WCPFC assessment models, which should provide a better representation of uncertainty. The 2021 SPC assessment found that the WCPO stock is not overfished and not subject to overfishing,

#### STRIPED MARLIN:

32. Across the south west pacific region, there has been a declining trend in abundance, with the stock assessment from 2019 estimating that the spawning biomass is at the limit reference point of 20%  $SB_{F=0}$ , and so is likely to be overfished and possibly subject to overfishing.

### **3.4. ETBF Broadbill Swordfish RBCC (CSIRO)**

33. Dr Rich Hilary recapped the main aspects of the Swordfish Harvest Strategy – noting that the CPUE index used in the Broadbill Swordfish harvest strategy is the previously agreed sub-adult standardised CPUE. In the Harvest Strategy a four year mean (i.e. from 2017–2020) is used as the reference mean index to be used as an input to the Harvest Control Rule. The RBCC scalar is then calculated subject to the constraint that the change in RBCC cannot exceed 10% either up or down.
34. The actual level of the CPUE would have required a greater reduction in the TACC to around 27% but the buffer in the harvest control rule limits the change to the recommended TACC to a maximum of 10% to minimise large fluctuations. The 2021 TACC was 1163 tonnes and calculated for 2022 fishing season is 1047 tonnes.
35. During discussion the RAG noted the following points:
- That the last two years represent very low proportion of catch to TACC which is not represented in the MSE testing and may represent exceptional circumstances in the harvest strategy if it persists.
  - Industry feel their behaviours have changed significantly over the last several years and are sceptical that this could be captured in the MSE testing and harvest strategy.
  - While data on catches and sizes of fish correlates with what is seen in the standardised CPUE's for the different size classes of fish, there remains concern that the operation of the fishery may not be adequately tested in the MSE work.
  - CSIRO will undertake quantitative analysis to determine possible ways to handle this if the low catch to TACC proportion persists.
  - The current low catches of swordfish are at least partially driven by economic reasons (high bait prices, lack of markets and high freight costs).
  - While there is some concern about the low catch to TACC, and the impact that this may be having, it is noted that the maximum 10% reduction harvest control rule will account for some of the uncertainty from the MSE testing and in the harvest strategy.

TTRAG also noted:

- Apart from the ETBF, at present there is no direct management of catches within Region 1.

- Catches by foreign fleets in the area denoted 'Region 5' that includes the ETBF (see map in Figure 2, Attachment 1 to minutes) have been higher in the past four years than any time since at least 2006. ETBF catch shares have been correspondingly lower. Should the proportion go below 50% for the ETBF in Region 1 then there is likely to be a lessening impact of a domestic harvest strategy.
- The Australian Government is leading efforts in the WCPFC to strengthen the CMM to ensure there are meaningful restrictions on regional catch and measures to reduce overall fishing mortality.

**ACTION 6:** CSIRO will undertake quantitative analysis to determine possible ways to handle this if the low catch to TACC proportion persists

**ACTION 7:** AFMA to investigate, if possible, whether bait changes have been experienced by NZ and the Spanish. Trends are the same so are their issues the same too.

### 3.5. Finalise RAG recommendations for TTMAC

36. Data provided in the presentations at agenda items 3.3 and 3.4 and associated papers together with RAG discussion during these agenda items was collated during and also following the meeting in the paper "TTRAG Advice for the Eastern Tuna and Billfish Fishery for the 2022 Season". This draft advice paper was recirculated to RAG participants out of session for clearance after the TTRAG on 16 September 2021 by Fishery Manager Josh Fielding. Comments were received from Dr Ash Williams. The final version of this advice paper which forms the major output of this meeting, can be found at **Attachment 1** - TTRAG Advice for the Eastern Tuna and Billfish Fishery for the 2022 Season.
37. The RAG noted that the TTRAG Advice Paper also summarises advice derived from several 2020/21 stocks assessments which, although they are public documents, have not yet been cleared through WCPFC Commission.

### 3.6. WTBF indicators (AFMA/CSIRO)

38. ETBF and WTBF Fishery Manager presented the summary paper on the indicators for the WTBF, noting that the AFMA Commission had previously requested that TTRAG provide it with an indicators paper to support Commission decisions on WTBF TACCs.

#### BROADBILL SWORDFISH:

39. Broadbill swordfish had an updated stock assessment in 2020 and there were some changes to elements of the stock assessment however the stock was not overfished or subject to overfishing.
40. The RAG noted that the stock status reported for the IOTC differs from that which is measured by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) within the Fisheries Status Reports. ABARES apply the default limit reference points within the Commonwealth Fisheries Harvest Strategy Policy (Department of Agriculture and Water Resources 2018) which establish the limit reference points for biomass as 20% of unfished levels (0.2B0); and for fishing mortality the limit reference point is the fishing mortality that would achieve maximum sustainable yield (FMSY). It is important to note that the IOTC determines stock status using different, purely MSY-based reference points (specifically BMSY and FMSY) which can result in IOTC reporting different biomass ('overfished') status for some

stocks, notably for yellowfin. The Indicators Paper will provide stock status evaluations under both scenarios.

41. There is little recent information available to determine if 3000t catch in the WTBF is “locally sustainable” i.e. would lead to local depletions with associated economic impacts. For five seasons over six years around the turn of the century the domestic component of the fishery took upwards of 1,000t, and in 2001 and 2002 took around 2,000t. In any case the TACC levels should be reviewed if the fishery was to significantly expand, using and assessing catch and CPUE information from the expanding fishery.

**ACTION 8:** Japanese catch data to AFMA provided by Dr Rob Campbell to be included in this WTBF Indicators Paper.

42. The RAG agreed that there was no change to the existing advice on TACC settings in relation to this stock.

#### BIGEYE TUNA:

43. The RAG noted that there has been no update to the stock assessment for this species and no change to advice on TACC settings.

#### STRIPED MARLIN:

44. There has been no updated assessment and this stock remains overfished and subject to overfishing. Consequently there was no change to the RAG’s TACC advice.

#### YELLOWFIN TUNA:

45. The IOTC Resolution 21/01, an interim rebuilding plan for Yellowfin Tuna, was designed to apply to all contracting parties and co-operating non-contracting parties and not prejudice any future formal allocations. The meeting noted this resolution does not establish an allocation but is designed to restrict the catch of Yellowfin Tuna in the Indian Ocean region. The resolution effectively states a floor in the measure for Nations which reported catches of Yellowfin Tuna in 2014 of less than 5000t and the average catch of the period 2015-2019 was below 2000t, then catches under the resolution 21/01 should not exceed 2000t. • Therefore to adopt this interim resolution Australia is required to reduce the WTBF Yellowfin Tuna TACC to 2000t.
46. IOTC stock assessments have determined that IOTC Yellowfin Tuna is both overfished and subject to overfishing, and that reductions in fishing mortality are required to recover the stock. The meeting noted again that the IOTC uses different limit reference points to that defined in the Commonwealth Harvest Strategy Policy. The 2020 Fisheries Status Reports prepared by ABARES assess the Indian Ocean Yellowfin Tuna stock as not overfished but is subject to overfishing.
47. The current WTBF TACC of 5000t is much higher than recent historical catch levels (18 t in 2020/21 season or ~1% of TACC and ~0.01% of recent IOTC catch). If caught, the TACC would represent ~1.2% of total IOTC catch.
48. TTRAG recognised that other considerations (whole of government position in allocation discussions) may be taken into account when setting the TACC level.
49. WTBF SFR holders and Tuna Australia noted that they believe that any cut to the Yellowfin Tuna TACC would impact significantly on the investments they have made and on their future catching potential. Industry also believes it penalises them unfairly for not catching the TACC in previous years. They reiterated the importance of setting WTBF TACCs at a level that



allows for future sustainable expansion of the fishery and stated that the current fishing levels in the fishery do not reflect the availability of the resource within Australian waters.

50. The industry position was that if this was to be a short-term measure then AFMA should retain the Yellowfin Tuna TACC at 5,000t and restrict catch through some other management mechanism.
51. The AFMA Senior Manager noted that there were around 12 other nations in a similar scenario of underutilised catch, which accounted for nearly 60,000t of potential catch. In a negotiation trying to reduce the actual catch of Yellowfin Tuna from around 450,000t down to around 400,000t this potential catch was important to assure those countries taking real reductions that their efforts would not be completely subsumed by the activation of latent effort.
52. The Chair noted that while the above points are an important discussion they would best fit during MAC not RAG discussion, leaving the RAG to focus on provision of stock assessment advice to MAC. The meeting discussed recent research projects of possible application to WTBF. CSIRO and AFMA will review recent research projects for applicable information. Where appropriate this will be included in the WTBF Indicators Paper.
53. The summary paper “TTRAG Indicators Paper for the Western Tuna and Billfish Fishery (WTBF)” was updated on the basis of RAG discussion during this agenda item and following the meeting. This draft advice paper was then recirculated to RAG participants after TTRAG 33 for clearance on 16 September 2021 by Fishery Manager Josh Fielding. Comments were received from Dr Ash Williams. The final version of this advice paper which forms the major output of this meeting, can be found at **Attachment 2** – ‘TTRAG Indicators Paper for the Western Tuna and Billfish Fishery (WTBF)’.

**ACTION 9:** AFMA to include any new stock structure advice elements in the WTBF Indicators Paper.

54. The meeting noted that there are some unresolved questions around the Yellowfin Tuna stock structure in the Indian Ocean. Dr Rich Hilary informed the RAG that CSIRO will begin a yellowfin close kin study and associated stock structure questions for the IOTC in the next year and will be liaising with the RAG regarding this process.

**ACTION 10:** The Chair requested that, if the CSIRO yellowfin close kin study and associated stock structure work requested by the IOTC required further discussion by the RAG, it should be added to the agenda for the March 2022 TTRAG meeting.

55. The Recreational fishing member noted that recreational catch data for Australia and New Zealand are now aging and there is possibly a need for the RAG to revisit and update this information, especially for non-club take of yellowfin and striped marlin. He suggested that as resource sharing conversations continue this will be important information and should be included as an action for a future research priority.

**ACTION 11:** AFMA to add collection/updating of recreational catch data for Australia and NZ, particularly non-club take of yellowfin and striped marlin for consideration as a future research priority.

## 4 Other business

1. TTRAG discussed the dates, length and location of TTRAG meetings required during 2022 and set tentative dates. The following schedule was suggested:

- TTRAG 34, 9 – 10 March 2022 – Online meeting across two days
  - TTRAG 35, 13 – 14 July 2022 – Online meeting across two days
  - TTRAG 36, 13 -15 September 2022 – Mooloolaba
56. During this discussion the Tuna Australia representative informed the RAG that TA was seeking a review of TTRAG with a key driver being of potential management cost savings and identifying SBT as a model.
57. The AFMA Tuna and International Fisheries Senior Manager noted that SBT is a single species fishery with no bycatch issues and a clear-cut process set out through CCSBT, in fact a very different fishery to ETBF.
58. The Chair requested that participants pencil these dates in their diaries, noting possible change after Commission consideration of issue.
59. The TTRAG Chair and RAG members thanked Mr Trent Timmiss for the high standard of his long, committed service to TTRAG as the AFMA member as he announced that this would be his last meeting prior to leaving AFMA.
60. The Chair thanked all people/organisations who provided documents for the RAG meeting. She also thanked members for their attendance and contributions and closed the meeting.

## **List of Attachments**

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**Attachment 1** - TTRAG Advice for the Eastern Tuna and Billfish Fishery for the 2022 Season

**Attachment 2** - TTRAG Indicators Paper for the Western Tuna and Billfish Fishery (WTBF)

# APPENDIX A

## Tropical Tuna Resource Assessment Group

TTRAG 33

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### DRAFT AGENDA Video Conference – 14-15 September 2021

#### Day 1

#### ***Session 1 9:00am – 10:30am***

##### **1. Preliminaries**

- 1.1. Welcome and apologies
- 1.2. Pecuniary interest declarations
- 1.3. Adoption of Agenda
- 1.4. Adoption of Minutes
- 1.5. Actions Arising
- 1.6. Out of session correspondence

##### **2. Review of Fishery Performance**

- 2.1. AFMA Catch Watch report (AFMA)
- 2.2. Current catches and effort in the domestic fishery – verbal updates from scientists, industry and recreational fishing members

#### ***Session 2 10:45am – 12:00pm***

##### **3. Review of Fishery Indicators**

- 3.1. South West Pacific Data – update (CSIRO)

#### ***Session 3 1:00pm – 2:15pm***

##### **Cont..Review of Fishery Indicators**

- 3.2. ETBF Economic indicators (ABARES)
- 3.3. ETBF indicators (AFMA/CSIRO)
- 3.4. ETBF Broadbill Swordfish RBCC (CSIRO)

#### ***Session 4 2:30pm – 3:30pm***

##### **Cont.. Review of Fishery Indicators**

- Cont.. ETBF indicators (AFMA/CSIRO)

## Day 2

### **Session 5 9:00am – 10:30am**

#### **Cont.. Review of Fishery Indicators**

- 3.5. Finalise RAG recommendations for TTMAC
- 3.6. WTBF indicators (AFMA/CSIRO)

#### **4. Other Business**

- 4.1. Date and venue for next meeting

## APPENDIX B

### Actions Arising from TTRAG 33

	Action	Responsibility
1	The RAG requested that AFMA to add a graph showing effort (hooks) for the same period as species catch data to the Catchwatch report	AFMA
2	AFMA to review and update if necessary the yellowfin catch in the Catchwatch report, noting a possible typo in the RAG paper.	AFMA
3	ABARES to provide further explanation of inputs/outputs in calculation of 'Economic performance Annual Indicators' for ETBF.	ABARES
4	ABARES to pursue options to take account of SBT in the catch figures and calculations of GVP and NER for the ETBF and include SBT in future ETBF economic indicators for TTRAG considerations.	ABARES
5	AFMA to circulate CSIRO Addendum to 2020 key target species CPUE presented to TTRAG 32 (July 2021).	AFMA
6	CSIRO will undertake quantitative analysis to determine possible ways to handle this if the low catch to TACC proportion persists	CSIRO
7	AFMA to investigate, if possible, whether bait changes have been experienced by NZ and the Spanish. Trends are the same so are their issues the same too.	AFMA
8	Japanese catch data to AFMA provided by Dr Rob Campbell to be included in this WTBF Indicators Paper.	AFMA
9	AFMA to include any new stock structure advice elements in the WTBF Indicators Paper.	AFMA
10	The Chair requested that, if the CSIRO yellowfin close kin study and associated stock structure work requested by the IOTC required further discussion by the RAG, it should be added to the agenda for the March 2022 TTRAG meeting.	RAG Members
11	AFMA to add collection/updating of recreational catch data for Australia and NZ, particularly non-club take of yellowfin and striped marlin for consideration as a future research priority.	AFMA