



Australian Government

Australian Fisheries Management Authority

**Tropical Tuna and Billfish Fisheries
Management Advisory Committee
TTMAC 19**

Meeting Minutes

4 October 2018

Holiday Inn Sydney

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1. Preliminaries

1.1. Welcome and Apologies

1. The Chair, Ms Catherine Sayer, opened the meeting at 8:30am and welcomed members, invited participants and observers to the 19th meeting of the Tropical Tuna Management Advisory Committee (TTMAC 19). She welcomed new members Alice MacDonald and Rowan Lamason and acknowledged Peter Trott and Cathal Farrell as retiring members. She also welcomed Department of Agriculture and Water Resources representative Jacob Tapp. The Chair acknowledged the challenges of distributing papers in a timely fashion due to staff illness and thanked the AFMA representatives for their work.
2. The following participants were in attendance at the meeting:

Table 1 Members, invited participants and invited observed in attendance at TTMAC 19

Members	
Ms Catherine Sayer	Chair
Mr Trent Timmiss	AFMA Member
Mr Terry Romaro OAM	Industry Member
Mr Pavo Walker	Industry Member
Mr Grahame A Williams OAM	Recreational/Charter Fishing Member
Ms Alice MacDonald	Environment Member
Dr Robert Campbell	Research Member
Mr Rowan Lamason	Industry Member
Mr Paul Lavalley	Industry Member
Invited Participants	
Mr Gary Heilmann	Industry representative
Mr Ian Bladin	Recreational/Charter Fishing
Mr David Ellis	Tuna Australia
Mr Brian Jeffriess AM	Australian SBT Industry Association
Mr Paul Williams	Industry Member
Observers	
Mr Jacob Tapp	Department of Agriculture and Water Resources
Dr Don Bromhead	AFMA
a/g Executive Officer	
Ms Amelinda Byrne	AFMA

3. Written apologies were received from Mr Phil Bolton.

1.2. Adoption of agenda

4. The agenda was adopted by TTMAC with no further amendments (Attachment A).

1.3. Declarations of interest

5. The Chair stated that as outlined in the Fisheries Administration Act 1991 and Fisheries Management Paper 1, all members and invited participants of TTMAC must declare any interests in tropical tuna fisheries as they relate to specific agenda items at the commencement of the meeting (Table 1). TTMAC noted that if a member or invited participant discloses an interest in an agenda item, the person must absent themselves from the meeting while TTMAC makes a decision as to whether they can participate in the discussion and in the making of recommendations, or remain absent from the meeting for the agenda item. The attendees declared their conflict of interests as follows:

Table 2 Declared interests of members, invited participants and invited observers at TTMAC 18

Name	Declared Interests	Agenda Items Relevant to Declared Interests
Members		
Ms Catherine Sayer	Chair TTMAC, CEO of Food South Australia. No pecuniary interests in tropical tuna fisheries. Chair of charter boat management plan review committee (SA).	Nil
Mr Trent Timmiss	Employee of AFMA, no pecuniary interests in tropical tuna fisheries.	Nil
Mr Terry Romaro OAM	Director of a company that owns Eastern Tuna and Billfish Fishery (ETBF) boat statutory fishing rights (SFRs), minorline SFRs, ETBF longline SFRs, Western Tuna and Billfish Fishery (WTBF) boat SFRs, WTBF longline SFRs, Coral Sea Trawl permit, 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 Southern Bluefin Tuna (SBT) MAC and industry representative at the Commission for the Conservation of SBT (CCSBT). Invited participant for squidRAG and squid concession holder. Alternate on the Board of Tuna Australia.	3.1, 3.2, 3.3, 3.7 and 3.8.
Mr Paul Lavalle	Director of a company that owns ETBF boat SFRs, minor line SFRs and ETBF quota SFRs for all five species. Director and member of fish receiving co-operative. Board member of Tuna Australia.	3.1, 3.2 and 3.7.
Mr Pavo Walker	Owner of several ETBF boat SFRs, and ETBF quota SFRs for all five species. Holds a Coral Sea permit and minor line permit.	3.1, 3.2 and 3.7
Dr Robert Campbell	Employee of the Commonwealth Scientific and Industrial Research Organisation (CSIRO), no	Nil

Name	Declared Interests	Agenda Items Relevant to Declared Interests
	pecuniary interests in Australian tropical tuna fisheries. Actively engaged in research on the ETBF and WTBF. Principal investigator for the research project: <i>Data management, provision of fishery indicators and implementation of the harvest strategies for Australia's tropical tuna fisheries.</i>	
Mr Grahame A Williams OAM	Past President of the Game Fishing Association of Australia, Treasurer and Records Officer of the NSW Game Fishing Association and Game Fishing Association Australia Executive Officer. No pecuniary interests in tropical tuna fisheries. Member of the NSW Recreational Fishing Trust	Nil
Mr Rowan Lamason	Family holds Boat SFRs (ETBF and Coral Sea) and quota SFRs	3.1, 3.2 and 3.7.
Ms Alice MacDonald	No pecuniary interests but currently consulting with the Forum Fisheries Agency (FFA)	Nil
Acting Executive Officer		
Ms Amelinda Byrne	Employee of AFMA, no pecuniary interests in tropical tuna fisheries.	Nil
Invited Participants or Regular Observers		
Mr David Ellis	CEO of Tuna Australia (industry association). Managing Director of consultancy company (David Ellis and Associates).	3.1, 3.2, 3.3, 3.7 and 3.8.
Mr Paul Williams	Director of a company that holds ETBF boat SFR and ETBF longline SFRs, minor line SFRs and a Commonwealth fish receiver permit. Member of TTRAG. Board member of Tuna Australia.	3.1, 3.2 and 3.7
Mr Gary Heilmann	Director of companies that hold a fish receiver permit and a Coral Sea permit. Member of TTRAG.	3.1
Mr Brian Jeffriess AM	CEO of Australian Southern Bluefin Tuna Industry Association.	Nil
Mr Ian Bladin	Game Fishing Association of Australia executive, Queensland Game Fishing Association and charter boat owner, no pecuniary interests in tropical tuna fisheries.	Nil
Observers		
Ms Amelinda Byrne	Employee of AFMA, no pecuniary interests in tropical tuna fisheries.	Nil

Name	Declared Interests	Agenda Items Relevant to Declared Interests
Mr Jacob Tapp	Employee of the Department of Agriculture and Water Resources, no pecuniary interests in tropical tuna fisheries.	Nil
Dr Don Bromhead	Employee of AFMA, no pecuniary interests in tropical tuna fisheries.	Nil

6. The following members and invited participants declared interests under Agenda Item 3: Mr Terry Romaro OAM, Mr Pavo Walker, Mr Paul Williams and Mr Paul Lavalle.
7. As per requirements, each of the above MAC members sequentially, and separately, left the room, and in each case, remaining members of TTMAC agreed that the member should be allowed to return for all discussions and recommendations made under Agenda Item 3.

1.4. Adoption of minutes from TTMAC 18

8. The minutes from the TTMAC 18 meeting held in Sydney on 17 April 2018 were circulated
9. out of session to the MAC on 18 May 2018.
10. Comments were received from Ms Catherine Sayer, Mr David Ellis, Mr Phil Bolton, Mr Trent Timmiss and Mr Brian Jeffriess AM and the suggested changes were incorporated into the final draft.
11. The MAC endorsed the final draft of the minutes with no further amendment.

1.5. Actions arising from previous meetings

12. The MAC discussed the action items arising from previous meetings and commented on the progress on each item (3).

Table 3 Status of actions arising from previous MAC meetings

Item	Meeting raised	Issues	Action	Responsibility	Status
1	TTMAC 14 – action arising 3	WTBF shark trip limits	A change to the WTBF shark trip limits from per trip to per day to be investigated and discussed with the Western Australian Government.	AFMA	Ongoing: AFMA has contacted WA Fisheries, who have sought additional information. Landings of shark in WTBF are currently very low so this action has been a low priority for AFMA. Issue discussed at TTMAC 17 – AFMA member and TA invited participant agreed to try to progress issue out of session, with engagement with WA fisheries ongoing. No further progress since TTMAC 18.
2	TTMAC 17 – action arising 2	Follow up on work undertaken by AFMA’s economic working group (arose out of discussion during 3.5 Research Update)	AFMA to follow up on the work being undertaken by AFMA’s economic working group for outcomes of relevance to the ETBF	AFMA	Ongoing: The AFMA member provided a verbal update and noted the ongoing collection of quota price data.
3	TTMAC 17 – action arising 3	TTRAG has discussed how to best utilise the economic data that is currently available for the ETBF and whether there are economic indicators that can be provided alongside the RBCC advice that is given to the MAC and Commission	The MAC recommended the TTRAG Economic Working Group comprised of Tuna Australia, AFMA, ABARES and the RAG economic member further explore the need and options for collecting economic information	TTRAG Subcommittee	Ongoing: The AFMA member provided a verbal update and informed the MAC that a subgroup of TTRAG was formed and has scheduled a half-day meeting for January 2019 to discuss economic factors. A TTMAC participant noted a continued need to discuss status report text on economics with ABARES
4	TTMAC 18 –	FMS Chapters	David Ellis and Don Bromhead to work out of session on FMS	David Ellis and Don Bromhead	Ongoing: AFMA and Tuna Australia has progressed some work and was discussed under Agenda Item 4.5

Item	Meeting raised	Issues	Action	Responsibility	Status
	action arising 1		chapters still requiring development.		
5	TTMAC 18 – action arising 2	Bycatch Handling Workshops during 2018	TTMAC EO to keep MAC informed of details of Bycatch Handling Workshops.	TTMAC EO	Ongoing: Bycatch Handling Workshops were conducted in Ulladulla (May) and Mooloolaba (July). AFMA is looking for further workshops over next 12 months. The workshops aim to provide advice on, and allow feedback and discussion with industry with particular regards to turtle and seabird interactions.
6	TTMAC 18 – action arising 3	Turtle interactions	Due to Mr Trott's absence from TTMAC 18, his questions from TTMAC 17 in relation to turtle interactions in the ETBF will be followed up out of session by the AFMA member.	TTMAC AFMA Member	Completed: Mr Trott was contacted by the AFMA member in relation to these issues out-of-session.
7	TTMAC 18 – action arising 4	Turtle interactions	AFMA to work with CSIRO (Need local content satellite tagging data) to investigate data content required and the possibility of developing a model to indicate most likely turtle interaction hot spots.	AFMA	Ongoing: AFMA is consolidating relevant information regarding marine turtle species occurring in the ETBF such as breeding seasons and grounds and is looking at ways to identify marine areas likely to have turtle interactions. Work on this issue will continue and will be presented to TTMAC 20. Model based predictions of turtle occurrence may be considered as a run-on project from the ETBF Oceanography project in future. AFMA has made a number of media releases on this issue recently, and will continue to prioritise work over the next 12 months.

Item	Meeting raised	Issues	Action	Responsibility	Status
8	TTMAC 18 – action arising 5	Transshipping	AFMA to provide an explanation of the current requirements for fishing vessels in the WCPFC area of competence to TTMAC 19.		Completed: Requirements for transshipping in both IOTC and WCPFC were presented to MAC at TTMAC 17. The issue of transshipping was further discussed under agenda Item 4.4.

1.6. Intersessional correspondence between TTMAC 18 and TTMAC 19

13. TTMAC noted the correspondence circulated out-of-session since TTMAC 18 held on 17 April 2018 (Table 4).

Table 4 Correspondence circulated out-of-session since TTMAC 18

Date	Item
26 April 2018	AFMA sought members for the Commonwealth Fisheries Marine Mammal Working Group.
18 May 2018	Draft TTMAC 18 minutes circulated for comment.
23 May 2018	Letter from the AFMA Policy Section, seeking individual MAC member comments on draft ESD social position statement by Wed 20 June 2018
23 May 2018	AFMA notified TTRAG and TTMAC members of a bycatch handling workshop to be held in Ulladulla on 31 May 2018.
6 June 2018	TTMAC EO requested any outstanding claims for meetings to be submitted prior to the end of the 2017/18 financial year.
29 August 2018	TTMAC EO circulated draft TTMAC 19 agenda for comment

2. Background and discussion items

2.1. AFMA management report on the ETBF and WTBF

14. TTMAC noted the report provided by the AFMA Member and AFMA Observer regarding developments and issues relevant to the management of the ETBF and WTBF. It was explained that a number of management issues would be discussed under later agenda items however the MAC noted in particular that:
- AFMA will undergo a number of changes over the next few months including a number of executive staff (James Findlay and Nick Rayns) departing the agency and a change of office location. This may result in some disruptions over the next six months or so, with AFMA also entering a very busy time of the year with international meetings,
 - AFMA has moved to a new VMS service provider (Trackwell), and is providing services to states and other Commonwealth agencies,
 - The 2019 ETBF season will start on 1 January 2019. With this in mind, the AFMA member informed the MAC that AFMA is closed between Christmas and New Year's Day. Operators should be reminded to ensure pre-season quota trading is finalised before this period as AFMA support services will be limited or unavailable over this period.
 - Compulsory e-logs will be coming into the fishery with the new season start of 1 January 2019. The ETBF is the last major Commonwealth fishery to move to e-logs.

2.2.RFMO meetings update – WCPFC scientific committee and IOTC

15. The Scientific Member provided TTMAC with an update on key outcomes and observations from WCPFC Scientific Committee meeting held in Busan, Korea in August 2018. Key issues noted included:
 - Total WCPO catch was the lowest in 6 years due mainly to the lowest Skipjack Tuna catch since 2011, offsetting high Yellowfin Tuna and Albacore Tuna catches (highest on record)
 - The Scientific Committee (SC) to look into better conversion factor estimates to inform catch estimation
 - **Bigeye Tuna** - The adoption of the updated new growth information in the Bigeye Tuna assessment has further confirmed the healthy status of the stock (i.e. not overfished or subject to overfishing), with a median spawning biomass at 0.35.
 - **South Pacific Albacore Tuna** - a new assessment for this species applied new regional structure and CPUE models and found the stock to be healthy (i.e. not overfished or subject to overfishing) and less depleted than previously estimated (i.e. spawning biomass at 51% of unfished levels).
 - the need for a Science-Management Dialogue to help facilitate the Work plan for the adoption of harvest strategies under CMM 2014-06.
 - **Sharks** – SC endorsed progress towards the development of a combined Shark and Ray Conservation and Management Measure (CMM)
 - **Seabirds** - SC 14 recommended that the 14th Technical Compliance Committee (TCC) and WCPFC15 consider a revision to the southern area of application of CMM2017-06. The proposal is to bring the WCPFC seabird area in line with the Australian domestic arrangements of 25°S. There is an option for hook shielding devices listed as an option as they are deemed to be effective but they are not being listed as mandatory. Mandatory mitigation devices discussed in the WCPFC are not going to increase regulations on Australia as we have a very high standard.
 - **Turtles** – SC highlighted that less than 1% of Western and Central Pacific Ocean (WCPO) longline effort is subject to mitigation under CMM 2008-03. Introducing mitigation (large hook sizes) to deeper set longlines would reduce turtle interactions and this will be considered further at WCPFC in December. AFMA will be checking hook size use in the ETBF to determine the proposals are likely to affect the ETBF.
16. The AFMA member briefly discussed the most recent IOTC meeting in Bangkok. Australia put a lot of effort into supporting the G16 group of like-minded coastal states. 10 measures were adopted (but with few implications for Australia) including:
 - Yellowfin rebuilding plan was adjusted slightly to allow Seychelles a slightly higher allocation that didn't restrict them to their lowest year.
 - Improved reporting on blue shark and billfish.
 - Similar measure on vessel chartering was adopted (to that used in WCPFC).
17. It is uncertain where the next meeting will be but there is a potential for an allocation workshop in February.

2.3.Forum Fisheries Agency Meeting Update

18. The AFMA observer provided a summary of upcoming FFA and WCPFC meetings. He noted that the WCPFC Technical and Compliance Committee had just

concluded its meeting and AFMA was awaiting a report from the meeting. A number of FFA workshops are being held in late October including the:

- **Regional longline strategy meeting** – which will discuss the development of a strategy that ultimately aims to limit longline catches to levels that increase CPUEs and improve longline fishery economics, with key elements being to establish catch limits, recognise zone based management, effectively control and account for the high seas fishery and ensure compatibility of the PNA longline Vessel Day Scheme with the Tokelau arrangement. The TTMAC Environment member will be a facilitator at the meeting and noted a broader intent to step back from individual country longline management and think strategically about how it should work at regional level including issues relating to gaps in data, verification, transshipment, compliance and human rights issues that are common across the fishery. The process will recognise differing aspirations of different countries (domestic fleets versus licensing foreign fleets etc).
 - **Tokelau Arrangement meeting**
 - **High seas allocation and limits workshop** - The WCPFC14 committed the Commission to develop hard limits and allocation framework for the high seas fishery for purse seine in 2019 and longline in 2020. The November workshop will discuss principles and criteria for hard limits (firstly) and high seas allocation (subsequently) and draft principles for hard limits and allocation that recognise the issue of economic dependence and need for compatibility between in zone and high seas. The TTMAC Environment member noted that the aim would be to develop a draft position paper for WCPFC to ensure a clear process pushes forward in WCPFC over next 12 months.
 - **Management options consultation** – This meeting will consider all of the key items on the WCPFC agenda and look to develop a combined FFA position where possible, including in relation to:
 - Compliance monitoring scheme
 - Tropical tuna conservation and management measure – a key issue will be ensuring that the measure is not opened up and weakened.
 - CMMs relating to seabirds, turtles and sharks and
 - Harvest strategy work plan progression
 - **Pre – WCPFC FFA meeting** leading into the **WCPFC Commission meeting** in December 2018
19. The AFMA member noted higher level international ministerial processes that are highlighting the importance of the role of FFA in the region.

Action 1 – AFMA to provide an update summary from the Technical Compliance Committee meeting and send to TTMAC out of session.

2.4. Tuna Australia Update

20. The Tuna Australia invited participant outlined key issues in the submitted meeting paper emphasising:
- TA involvement in the Marine Parks processes and recent emphasis on considering the impacts on individual operators
 - TACCs – industry wants to move to multiyear TACCs to provide stability
 - Swordfish TACC – has been of concern to industry who have highlighted that key factors are not being accounted for in the CPUE standardisation.

2.5. General update from members, invited participants and observers

20. An industry participant informed the TTMAC that there has been a slight increase in swordfish catches relative to the low catch rates seen over the past few years. Tuna catches are increasing in the tail end of the season. The climate and oceanography project should help in understanding the movement and availability of target species in the ETBF and implications for catch limits in future.
21. All members noted the high longline catches of Southern Bluefin Tuna along the east coast and earlier in the season and higher up the coast when compared to previous years.
22. In the WTBF, the industry representative noted the desire of some industry participants to get product frozen at sea to ease the logistics of operating in remote locations in the fishery. Recent catches in the WTBF have been good.
23. As mentioned at the TTRAG, some members noted the higher level of whale predation compared to previous years, particularly in March-May period. Members noted that it is difficult to determine just how much whale predation is occurring given the whales swim downwards to take the fish, so only the fish hooked well in the mouth will show a head, indicating predation by whales. Concern was raised over the impact of this on catch rate indices.
24. An industry member noted that he had recently left Tuna Australia and was no longer represented by the industry association.
25. In the northern most part of the fishery, bigeye numbers were notably low this year and shark predation higher than usual. Weather conditions have also been unusual with warmer water occurring up north. A key change is the new Marine Park areas that impact fishing grounds in the coming season.
26. The ASBTIA representative discussed the SBT fishery update paper submitted to the meeting which notes current quota and future quota conditions. He noted the particular importance of the CSIRO genetics work currently being undertaken. He also noted the work done by Tuna Australia and their efforts relating to the recent labour agreements and Marine Parks processes.
27. The observer from the Department of Agriculture and Water Resources (DoAWR) informed the MAC that the portfolio now has a new Minister responsible for fisheries, Senator the Hon Richard Colbeck as the Assistant Minister for Agriculture and Water Resources. He informed TTMAC that DoAWR will lead a delegation including AFMA and industry members to this year's WCPFC meeting.
28. The recreational invited participant provided TTMAC with an update on the recreational and charter fisheries in QLD. The TTMAC noted the catches of Blue Marlin and juvenile Black Marlin has been lower than usual for this time of year and noted the numbers of sharks appearing up in the northern areas. He also informed the MAC that the Cairns Professional Game Fishing Association (the main Charter fishing representative in QLD) has been through a period of renewal in memberships.
29. The recreational member informed the TTMAC that the New South Wales tournament season finished in May and was close to the best season in nearly a decade with good catches of Yellowfin Tuna, Striped Marlin and sharks with around 150 Mako sharks tagged. The Recreational member noted that the Southern Bluefin Tuna catches have been much higher than usual this season.

Action 2 – The recreational member will also follow up with NSW Primary Industry on recreational tournament dates and provide to AFMA.

3. Consideration / Decision items

3.1 ETBF Total Allowable Commercial Catch

30. The AFMA member noted the detailed paper 3.1 and TTRAG Advice Paper (3.1a) and proceeded to provide a recommendation on TACCs for each ETBF quota species, highlighting key information from these papers to support each recommendation, as follows:

Albacore Tuna

31. The AFMA member recommended that the Albacore Tuna TACC stay at 2500 t, after noting that:
- the Albacore Tuna TACC has been at 2500 t since quota was introduced in the ETBF.
 - A revised stock assessment in 2018 indicated that the South Pacific Albacore Tuna stock is less depleted than previously estimated and stock status is healthy.
 - ETBF catches have not greatly exceeded 1000 t in the past 10 years.
32. Industry noted the possibility of a free trade agreement being negotiated with the European Union that may result in the export of Albacore Tuna becoming a more economically viable option. Industry members and invited participants questioned how it might be possible to increase the TACC, noting that Albacore Tuna is a key species when other species availability is low, there are likely to be large catches possible in subtropical water (off Queensland) and the current national limit within the Tokelau Arrangement was never agreed by industry.
33. The AFMA member clarified that with no recent significant catch history, it would be difficult to justify increasing that limit in the Tokelau Arrangement forum. The ETBF would need to demonstrate a capacity to catch near the limit for a number of years, undertake an assessment of the impact of such catches upon the catch rates and size structure of the catch, and take into account any new genetics information regarding stock structure, before AFMA could consider any changes to the limit. Any changes in the longer term would require consultation with the Department of Agriculture and Water Resources to take account of regional objectives for the management of Albacore Tuna.
34. The Environment member stated that:
- Progress towards regional management of the stock has been hindered by the refusal of some countries, including Australia, to lower their TKA limits to levels more in line with demonstrated recent catch history. TACC reductions should not only be on the basis of biological (sustainability) grounds, but should take into account the longer term regional management objectives.
 - Latency (undercatch) is a concern and reducing the TACC could be a way to increase quota value.
35. The AFMA member clarified that AFMA has no policy to reduce TACCs to influence quota prices.
36. TTMAC accepted the AFMA recommendation of a 2500 t TACC and recommend that it be set at this level for two years.

Yellowfin Tuna

37. The AFMA member recommended that the Yellowfin Tuna TACC be set at 2400 t, noting that:
- The TACC was first increased to 2400 t in 2017/18 season, with Yellowfin being the most valuable species in the fishery (in GVP terms)

- Genetics research may indicate if there is stock structure.
 - The most recent stock assessment indicates that the stock is not overfished and not subject to overfishing and that Region 5, of which the ETBF catch is a minor component (averaging 12.5% over the previous five years), is estimated to be at 44% of the unfished spawning stock biomass.
 - The ETBF sees high interannual variability in availability and catch of Yellowfin Tuna
 - On the basis of the above information there is no reason to change the TACC
38. TTMAC agreed with the AFMA recommendation and recommend that it be set at 2400 t for two years.

Bigeye Tuna

39. The AFMA member recommended that the Bigeye Tuna TACC be set at 1056 t, noting that:
- The TACC has been 1056 t since introduction of quota while the national allocation is currently 2000 t under the WCPFC Tropical Tuna CMM
 - The most recent stock assessment indicates the stock is not overfished and not subject to overfishing
 - The ETBF has seen a few years of low catch and CPUE, and while catches have historically varied between years and this would need to be monitored going forward
40. TTMAC endorsed the AFMA recommendation.
41. An industry invited participant and industry members then requested that for all species' TACCs be set on a multiyear basis to provide stability for industry and allow TTRAG and TTMAC to concentrate on the redevelopment of the harvest strategy for Swordfish and Striped Marlin in 2019. After some discussion, noting WCPFC processes including setting of hard limits and a new stock assessment in 2020, TTMAC agreed to set TACCs for all species for two years.
42. TTMAC also noted the AFMA observers caution regarding the continuing low CPUE for small Bigeye Tuna and recent low adult CPUE and that it would be important for TTRAG to review any new information (CPUE, genetics or other) for Bigeye Tuna and other species (especially Swordfish) and advise TTMAC and the AFMA Commission of any concerns in 2019 which might need to be accounted for in the 2020 Season TACCs.

Striped Marlin

43. The AFMA member recommended that the Striped Marlin TACC be set at 351 t, noting that:
- 2019 will be the first season in which the TACC is set without a harvest strategy
 - Current TACC is well below the historical average catch level and is at a level that allows industry to retain incidental catch of this species but does not encourage targeting.
 - There is a new stock assessment due in 2019 that may have an influence upon future TACC decisions but local standardised CPUE has been relatively stable for the past decade.
44. An Industry member noted that it is an important recreational fishery species and industry is not seeking an increase in TACC. Currently quota is well spread through the fishery, meaning operators are not restricted in their fishing operations.
45. TTMAC endorsed the AFMA recommendation and recommend that it be set at 351 t for two years.

Broadbill Swordfish

46. The AFMA member started the discussion by noting:

- The 2017 stock assessment uses a two region structure, being region 1 (containing the ETBF) and region 2 (east of 165E), with the implications of the assessment for the ETBF being highly dependent on assumptions regarding movement and the impact of large catches in the north-east area of the stock (noting the current CMM is focussed on fishing south of that area).
- The assumptions of 0% and 25% movement between regions per quarter, explored by the assessment, are not realistic, with the third assumption of 11% based on actual tagging data.
- 11% movement based models suggest that Region 1 depletion is at about 41% of unfished spawning biomass.
- Overall the assessment indicates there is no biological threat to the stock with the median spawning biomass well above the assumed limit reference point (20% of unfished levels).

47. The AFMA member noted further information provided by CSIRO since TTRAG 22, including assessment model runs that exclude the large north-eastern section where there are significant Distant Water Fishing Nation (DWFN) catches.

48. The Scientific Member provided an overview of the data provided in paper 3.1b. He explained that:

- TTRAG has previously noted that there is some evidence to suggest fish taken in the north east area of the current assessment region are part of a separate stock (Eastern Pacific) to that being fished by the ETBF and expressed concern over the inclusion of the large north-east catches (comprising half of area 2 catch and a third of total stock catch) in the original assessment, noting these catches are likely to influence fishing mortality and depletion estimates.
- Secretariat of the Pacific Community (SPC) re-ran the assessment for CSIRO with the northern region catch excluded and provided the set of model run outputs, including regional and stock depletion estimates.
- The key finding of the new model runs was that as migration percentage increases (from 0 to 11 to 25), the models estimate increasingly greater spawning biomass depletion. For models using 11% and 25% migration, spawning biomass depletion in Region 1 is higher (more depleted) when the northern catch is excluded. For models using 0% migration, depletion is less for models with the northern catch excluded. TTRAG has advised that 25% is unrealistically high and 11% is likely to be the most realistic (based on tagging data).
- The most likely explanation for the greater depletion in region 1 for the 11% migration models excluding the northern catch is that the new models estimate much lower biomass in region 2 and therefore less fish to contribute, via movement, to region 1 biomass, while region 1 catches have remained the same relative to its biomass.

49. An industry member suggested that the regional boundary might need to be moved further east in future assessments to more appropriately model movement between regions.

50. The AFMA member then summarised AFMA's position and recommendation on a TACC for Swordfish. He noted that:

- The stock assessment identified concerns with the level of fishing mortality in region 2 on age 3 and 4 swordfish, while ETBF CPUE indicators are of some concern for recruits (age 1 and 2 fish) and sub-adults (age 3 and 4 fish) which have been at or near historically low levels over the past 3 years. AFMA is

aware of industry's concerns that the standardised CPUE might underestimate local abundance in recent years.

- The current TACC of 1157mt is below the 10 year average catch, with the ETBF catch being very consistent for the past 10 years (averaging 1258t and ranging between 1170t and 1362t).
- The harvest strategy (HS) is not being applied for the 2019 season after a Management Strategy Evaluation (MSE) determined that applying the HS would continue to cut the TACC even when the stock was above its spawning biomass target level, meaning the HS would not meet AFMA's objectives. An indicators based approach would be used while the HS is developed over the next two years.
- Noting the trends in ETBF CPUE and other data, AFMA will not support a large increase in the TACC as proposed by ETBF industry. AFMA also does not support a decrease in the TACC while the HS is redeveloped, noting that while depletion levels are uncertain, the stock is not overfished and median depletion is 35% of unfished spawning biomass (well above 20%).
- AFMA considers that maintaining the TACC at its current level represents a very low risk of depleting the stock or moving it towards the limit reference point and may be the most appropriate option if the recent low CPUEs represent a period of low recruitment that will flow through into the adult stock in future.
- AFMA considers implementing a small increase in TACC for two years would represent a relatively low risk to stock sustainability, and improve short term economic returns, but this could only be considered if industry was to recognise and accept the risk that it may negatively impact on the initial TACC recommended by a revised HS. Industry would also need to consider the potential implications for MSC certification of any increase to the TACC in the absence of a HS.

51. TTMAC discussed the AFMA recommendations, with the following key issues being raised:

- An industry member reiterated industry's concern that CPUE standardisation does not reflect changes in fishing practices associated with the move to quota (including increasing density of hooks per mile) and with an increase in fishing effort on Southern Bluefin Tuna, and that if the recruits' CPUE decline was real it should be reflected in the adult CPUE. He stated that very fine scale shifts in area, while maintaining fishing method/gear attributes, are being used to completely change the species composition, to avoid swordfish, and these fine scale changes are not captured in the standardisation. He noted anecdotal reports of more small fish in the 2018 Season.
- The AFMA observer responded noting that TTRAG had already explored the effect of increasing effort on SBT and found it to have little impact on CPUE, while many other factors (e.g. time and area changes and increasing hook density) had also been taken into account in the standardised catch rates. The trends in size based CPUE's fit with the biology of the species, with recruits' CPUE decline preceding the Sub-adult CPUE decline and that a decline in the adult CPUE might take longer as it combines 6 to 7 age classes.
- The Scientific member and AFMA observer questioned the capacity of fishers to tightly control species composition of fishing operations using fine scale spatial shifts as described by industry, noting catches on this scale are highly stochastic and also questioned why the adult CPUE was not also responding to this shift in fishing strategy. It was noted there may be environmental drivers influencing these CPUE patterns.

52. The AFMA member then stated that AFMA would not accept the large TACC increase requested by industry due to the likelihood that the decline in recruits and sub-adult CPUE

may be real. He noted that catches however have been relatively stable at around 1200-1250 t for nearly 10 years and that a TACC at this level would be acceptable.

53. Industry members indicated that they felt an increase, to 1250 t (from 1157 t) would be acceptable. An industry member with MSC certification indicated that while he would like catches as high as possible, proper process should be followed including consideration of the science and he was not seeking unsustainable catch levels.
54. TTMAC endorsed a recommended TACC of 1250 t, on the basis that:
 - The ETBF HS was flawed (and no longer used) leaving the basis for the current TACC somewhat uncertain
 - The new HS will be designed to meet AFMA's objectives
 - Adult fish CPUE has been relatively stable for over 10 years and average ETBF catches above 1200t have occurred during this period of stability in adult CPUE.
 - Setting the TACC at about average catch is appropriate in the short term while developing the harvest strategy.
 - It was noted that some TTMAC members are concerned over the recent drop in recruit and sub-adult CPUEs.
55. The Scientific member further supported this recommendation, stating that based on the standardised CPUE for adult swordfish there was no evidence that catches levels averaging around 1250t over the past 10 years had impacted negatively on the spawning biomass of swordfish available to the ETBF and as such similar catch levels should maintain the spawning biomass well above the Limit Reference Point (as required under the CHSP).
56. The TTMAC industry member with MSC certification stated that he was comfortable with the recommendation providing it didn't contravene the EPBC Act and would meet MSC requirements. The AFMA member clarified that MSC requirements are not within AFMA's control and MSC would determine the implications of the recommendation for certification.

TTMAC endorsed a TACC of 1250 t for Broadbill Swordfish.

In summary, the TTMAC recommended for the next 2 seasons, the following TACCs be set for each of the following species:

- 2, 500t for Albacore Tuna
- 2, 400t for Yellowfin Tuna
- 1, 056t for Bigeye Tuna
- 351t for Striped Marlin
- 1, 250t for Broadbill Swordfish

3.2 ETBF over/under catch for 2019 and Item 3.3 WTBF over/under catch for 2019

57. Agenda items 3.2 and 3.3 were considered together as they both related to undercatch and overcatch arrangements. The AFMA observer introduced the papers for both the ETBF and WTBF and explained how both undercatch and overcatch arrangements worked. The AFMA observer also noted that a decision is needed before the season for ETBF and during the season for WTBF. It was noted that there were no sustainability concerns with the under or overcatch arrangements being recommended.
58. An industry member raised a concern about overcatch not being available to operators during the season and effectively only being available in the last 28 days of the season. The AFMA member clarified that operators could access their overcatch arrangements at any 28 day period during the season, but would be required to cease fishing 28 days after going above their actual quota holdings. He noted that this was to avoid operators from discarding one species whilst catching other species they had uncaught quota for. Some

industry members would like this changed, but the AFMA member stated that this policy applied across all AFMA fisheries and would not change.

59. TTMAC recommended that overcatch and undercatch levels be set at 10% and the Determined Amounts as 2 t for both the ETBF and WTBF.

3.4 Annual research statement review and research update

60. The AFMA observer introduced the paper and updated TTMAC on the status of research in the tuna fisheries and more broadly. He noted that COMRAC has recommended the following full proposals for FRDC Board approval at its 15 August 2018 meeting:

- Cumulative impacts across fisheries in Australia's marine environment (project 2018-020) - review of the full range of ERA methods and frameworks that are available to be added (possibly a national project) – CSIRO lead.
- Development and evaluation of multi-species harvest strategies in the SESSF (project 2018-021) – CSIRO lead.
- Developing Capacity & Capability within the Recreational Fishing and Indigenous Sectors to Better Engage with Government on Fisheries Management Issues – Fishwell Consulting Pty Ltd.

61. The AFMA observer presented the Annual Research statement for the ETBF which needs to be finalised by 9 October 2018 to be considered by the AFMA Research Committee. TTMAC discussed the draft annual research statement and associated gaps analysis and an industry member asked whether the anticipated Harvest Strategy will be able to deliver the results required

62. The research member and AFMA observer responded that many of the issues that were problematic in the old harvest strategy should be able to be addressed. In particular, issues around connectivity with catches outside the fishery and the relationship between CPUE and abundance were uncertainties that would need to be addressed.

63. The conservation member asked whether the target reference point would be reviewed in the project and whether TTMAC would participate in that discussion. She also questioned whether multi-species reference points (i.e. fishery MEY rather than species specific) would be considered. TTMAC noted that these issues would be addressed in the process and it is anticipated there would be significant consultation between TTMAC and TTRAG in this process.

64. TTMAC agreed to the ATBF Annual Research Statement 2018/19 and the MAC RAG research GAP analysis form as presented.

3.5 Other outcomes from TTRAG22

65. The AFMA observer noted that most of the key TTRAG recommendations are considered under other TTMAC agenda items. He informed that TTMAC that the economic working group would meet late January 2019 and that that meeting would also review data collected in logbooks as part of the FMS Data strategy development.

3.6 ETBF ERA and management update

66. The AFMA observer presented the paper on ERA and provided some additional recommendations. He noted that in the original analysis, eight species were possibly at high risk, but upon a residual risk analysis by CSIRO, seven of the eight potentially high risk species had their risk levels reduced. This was because lengthy time series of logbook, observer and more recently e-monitoring data indicated the actual catch of these species was zero or very low. Many of these species were only included in the analysis because some taxonomic groups (eg whales) had been expanded to many species.

67. The eighth species, Dusky Whaler Shark, was still considered to be high risk as interactions are relatively high. TTRAG had previously noted that the assessment tool used (SAFE)

assumes that all Dusky Shark that interact with the fishery die as a result, due to the precautionary assumption of 100% post capture mortality for any byproduct species. TTRAG also noted that in fact most Dusky Sharks are released and many may be alive at release and requested that ABARES conduct a review and analysis of post capture mortality.

68. The results of ABARES and TTRAG's work were that post capture mortality was assessed to be in the range of 40.5% - 61.3%, not 100% as assumed using SAFE. The AFMA observer noted this conclusion was reached without TTRAG knowing what the impact on the ERA risk level would be. When the revised evidence based estimates of mortality were inputted to the SAFE analyses by CSIRO, the risk level of Dusky Shark was determined to be medium using the higher estimate (62%) and low using the lower estimate (39%).
69. The AFMA observer noted that this outcome was based on the assumption that most Dusky Sharks were released and that AFMA would work with Tuna Australia to discuss management options that would ensure that this continues to be the case. Industry members raised the issue of species identification. One member from north Queensland noted that they do not get Bronze Whalers up there.
70. TTMAC recommended to accept the revised risk assessment and rating for Dusky Shark.

3.7 Size monitoring program for ETBF and WTBF

71. The AFMA observer present the background on the size monitoring program and noted that Kevin Williams who has been running the program for nearly 20 years has indicated he will retire. TTMAC noted the importance of this size data to the past and future harvest strategies. The AFMA observer outlined three options to collect the data going forward.
72. **Option 1:** AFMA would take advantage of the existing expertise in fishery logbook and data practices and existing relationships and understanding of processors in the AFMA Data Entry and Collection Section to take on manual or automated data collection.
73. **Option 2:** AFMA, with Tuna Australia, is looking at the possibility of entering into a co-management arrangement, as part of which Tuna Australia would collect size monitoring data in conjunction with other identified co-management tasks.
74. **Option 3** Retain this project as an ARC-funded project (through levy funds) and call for tenders.
75. The AFMA observer noted that AFMA and Tuna Australia would continue to work on these options and likely pursue options 1 or 2. There was no objection to this approach. An industry member asked about the potential for e-monitoring to do some of this work. TTMAC noted that substantial work on image recognition is underway, but the required technology was still some years away.

3.8 Longtail tuna in the WTBF

76. The AFMA member outlined the proposal from WAFIC to increase the longtail tuna catch limit in the WTBF from its current limit of 35mt to 250mt, outlining firstly some of the historical context to the current Longtail Tuna catch limit and then the support letter from RecFishWest (required by AFMA) which supports the WAFIC proposal but only to 200mt initially and only if a specific set of conditions are met. These include spatial exclusion zones around some key ports – it is not clear whether these zones intend to exclude all WTBF operators or only those fishing for longtail tuna.

77. The AFMA member noted that such exclusion zones, particularly if species specific, would be quite costly and complicated to implement. Instead it might be better to restrict the limit to minor line only and only in Shark Bay area that they wish to operate, which would also be much more cost effective from a management perspective. But if the WAFIC proposal involves purse seining in Shark Bay this might be an issue for the recreational fishery.
78. An industry invited participant stated that the spatial conditions were not acceptable to industry, and concern was expressed by TTMAC members over:
- The potential management costs being borne by industry members not benefitting from the increased limit, noting that AFMA could not cost recover from the canning operations that might receive the Longtail Tuna.
 - The economic viability of the proposed commercial operation, particularly using minor line method.
 - Potential for local depletion if it was focussed in one area like Shark Bay.
 - Any restriction of the proposal to only minor line fishers and not the full fishery.
 - Capacity to monitor any impact on recreational fishing experience.
79. The AFMA member requested that Tuna Australia, WAFIC, WTBF industry and RecFishWest engage in discussion to develop a mutually agreeable cost effective proposal and then come back to AFMA with the proposal. TTMAC agreed this was an appropriate way forward on this issue.

ACTION 3 - Tuna Australia, WAFIC, WTBF industry and RecFishWest engage in discussion to develop a mutually agreeable cost effective proposal.

4 Other Information/Discussion Items

4.1.EM update

80. The AFMA member provided a brief update on developments in relation to the implementation of electronic monitoring in the tropical tuna fisheries, noting:
- E-monitoring has been in place since July 2015 and is going well except for a few boats continuing to experience interference issues.
 - ABARES have done analyses on the impact of EM on reporting rates which is very positive and we are trying to get EM into the WCPFC system.
 - Compliance issues have reduced, with the main ones being not reporting Mako Sharks and very occasionally bycatch handling issues.
 - Costs are lower than if there were human observers.
 - EM is expanding into other fisheries now including South-east Trawl (SET) and potentially Antarctic fisheries.
 - AFMA is looking to progress the program over the next 2-3 years of having no specific provider but simply an EM standard that must be met and operators choose their own provider and are required to meet the standard's conditions (on camera angles, video quality, timeliness etc)
81. Industry members expressed some concerns over technician availability to maintain and fix EM system problems and the need for locally trained technicians in all key ports.

82. The AFMA member noted that a paper is being drafted in relation to summarising the issues of implementing EM in the fishery, the benefits of the program and the lessons learned and that he would circulate this to TTMAC members in future. The paper is intended to help promote the future uptake of EM in the IOTC and WCPFC, but it may also assist in highlighting how well the ETBF and WTBF is currently performing in this space relative to international fisheries.

ACTION 4 – AFMA will circulate a draft of the EM review paper to the TTMAC.

83.

4.2. Environment update

84. The AFMA observer presented the environment update. He noted that renewed Wildlife Trade Operation approvals would be required for both ETBF and WTBF during 2019. The AFMA observer also presented the protected species interactions for both the ETBF and WTBF, noting in particular the reported interactions with seabirds and turtles. TTMAC noted the WTBF protected species reports were outdated and more up to date reports would be provided out of session

85. The AFMA observer noted that a new Seabird Threat Abatement Plan (TAP) had been agreed and that the ETBF had breached the TAP limits in the southern areas of the fishery. He noted that the AFMA tuna and bycatch teams are working with boats to rectify these issues. The AFMA observer noted that work with turtles was also ongoing and species identification material was being circulated to industry.

86. TTMAC noted that Marine Parks were now in force and that an adjustment program was open but AFMA was not involved in running this. The AFMA observer noted the update on hammerhead sharks being listed under the Convention on International Trade in Endangered Species.

87. TTMAC members asked that future environment updates contain information on climate change.

ACTION 5 – AFMA to provide TTMAC with updated WTBF protected species reports out of session.

ACTION 6 – AFMA to include updates on climate change research and policy issues in future environment updates to TTMAC.

4.3 Fishery Catch data – 2018 season to date

87. The TTMAC noted the data summary as presented in the paper. There was no discussion or questions.

4.4 Update on transshipment

88. The AFMA member noted that AFMA released a transshipment policy for public comment earlier in 2018 and that has gone to the Commission and will likely be released as a formal AFMA Policy in late October 2018. The intention is that amendments will then be made to ETBF Boat SFR conditions to enable transshipment in the mainland EEZ (not currently at Norfolk) under condition of vessels prior reporting, having electronic monitoring and providing copies of CDRs to allow tracking of separate vessel catches. The situation in the WTBF has not changed where IOTC requirements mean a human observer (from IOTC observer program) must be onboard the IOTC registered receiving vessel.

89. An industry member asked if a dispensation could be sought from IOTC and this would depend.

4.5 Fisheries Management Strategy

90. The AFMA observer noted that due to resourcing issues in recent months progress on the FMS had slowed, but outlined progress made on reducing its length and on improving the commercial, bycatch and data strategy sections of the FMS. AFMA will send another revision out of session so this doesn't have to wait to the next meeting in April to get comments and can be endorsed by the next meeting.

Action 7 – AFMA to circulate a revised draft of the FMS out of session for TTMAC comment

4.6 Other business

91. Industry noted that there was nothing on the budget in the agenda. AFMA noted that the end of year expenditure was about \$60k under, in part due to lower e-monitoring costs. An industry member also asked if it is possible that AFMA could look at amending conditions for operations in the Coral Sea Zone (CSZ) so that vessels fishing in and out of the CSZ would be able to carry more than 500 hooks, noting that EM could be used to verify that only 500 hooks are used on operations within the CSZ. This would save vessels having to come back to port to get additional hooks if wanting to fish outside CSZ. The AFMA member indicated that AFMA would look into this question and agreed EM may make this more feasible.

Action 8 – AFMA to circulate a revised draft of the FMS out of session for TTMAC comment

5. Date and venue for next meeting

92. The TTMAC decided to set a date for the first meeting of 2019. The MAC tentatively agreed a date on Tuesday 9 April 2019 to be held again in Sydney.

93. The Chair thanked participants and members for the contributions and closed the meeting at 3:10pm.

ATTACHMENT 1: FINAL AGENDA

Tropical Tuna Fisheries Management Advisory Committee (TTMAC) 19

Thursday 4 October 2018

8:30 am – 5:30 pm

Holiday Inn Sydney Airport

DRAFT AGENDA

- 1. Preliminaries/Matters Arising**
 - 1.1. Welcome and apologies
 - 1.2. Adoption of agenda
 - 1.3. Declarations of interests
 - 1.4. Adoption of Minutes from TTMAC 18
 - 1.5. Actions arising from previous meetings
 - 1.6. Intersessional correspondence between TTMAC 18 and TTMAC 19
- 2. Background Information/Discussion Items**
 - 2.1. AFMA Management report on the ETBF and WTBF
 - 2.2. RFMO meetings update - WCPFC Scientific Committee and IOTC
 - 2.3. FFA meeting update
 - 2.4. Tuna Australia / Industry update
 - 2.5. General update from members, invited participants and observers
- 3. Consideration/Decision Items**
 - 3.1. ETBF Total Allowable Commercial Catch
 - 3.2. ETBF over/under catch for 2019
 - 3.3. WTBF over/under catch for 2019
 - 3.4. Annual Research Statement Review and Research update
 - 3.5. Other outcomes from TTRAG 22
 - 3.6. ETBF Ecological Risk Assessment and Management Update
 - 3.7. Size Monitoring Program for ETBF and WTBF
 - 3.8. Longtail Tuna in the WTBF
- 4. Other Information/Discussion Items**
 - 4.1. Electronic Monitoring update
 - 4.2. Environment update
 - 4.3. Fishery Catch Data – 2018 season to date
 - 4.4. Update on transshipment in the ETBF & WTBF
 - 4.5. Fishery management Strategy
- 5. Date and venue for next meeting**