



Australian Government
Australian Fisheries Management Authority



Southern Bluefin Tuna Management Advisory Committee (SBTMAC)

**PROVISIONAL MINUTES
SBTMAC 35
12 SEPTEMBER 2011
CANBERRA**



SOUTHERN BLUEFIN TUNA MANAGEMENT ADVISORY COMMITTEE (SBTMAC)

Agenda Item 1: Preliminaries/matters arising

1.1: Opening Comments

1. SBTMAC Chair Peter Neville opened the meeting. SBTMAC particularly welcomed Ms Katherine Reid as a casual observer from DSEWPaC.

Apologies

2. Apologies were received from Mario Valcic (industry member). Participants at SBTMAC 35 were:

Chair

Peter Neville

Members

Gavin Begg (scientific member)
Greg Honeychurch (farm industry sector)
Glenn Sant (conservation member)
Michael Thomas (farm industry sector)
Trent Timmiss (AFMA member)
Andrew Wilkinson (farm industry sector)

Permanent Observers

John Brooker (recreational sector)
Mehdi Doroudi (state government sector)
Terry Romaro (non-farm industry sector)

Executive Officer

Tony Kingston

Observers

Industry

Brian Jeffriess (ASBTIA)

AFMA

John Andersen¹

Matt Daniel

Aimee O'Connor

David Power

Paul Ryan¹

Kylie Tonan

Adam Wade

CSIRO

Campbell Davies

DSEWPaC

Katherine Reid

1: Present for selected agenda items only

Acceptance of agenda

3. The agenda approved by the meeting is annexed as Attachment A.

1.2: Pecuniary interest declarations

4. SBTMAC noted the pecuniary interest declarations from members and permanent observers:

- i) Peter Neville, a director of a fisheries consulting business;
- ii) Dr Gavin Begg, employee of ABARES, no pecuniary interest in SBT fishery;
- iii) Greg Honeychurch, an employee of an SBT farming company;
- iv) Glenn Sant, an employee of Traffic Oceania;
- v) Michael Thomas, Director of a group of companies that owns SBT quota;
- vi) Andrew Wilkinson, an SBT quota holder;
- vii) John Brooker, Vice President, Game Fishing Association of Australia (GFAA), no pecuniary interest in the fishery;
- viii) Professor Mehdi Doroudi, Executive Director, Fisheries and Aquaculture, Primary Industries and Resources South Australia (PIRSA);
- ix) Terry Romaro, an SBT quota holder; and
- x) Tony Kingston, a director of a fisheries consulting business.

1.3: Outcomes of AFMA convened MAC/RAG workshop

5. The Chair provided a summary of the key outcomes from the AFMA-convened MAC/RAG workshop held in July. The Chair stressed the importance of the MAC framing its advice in the context of AFMA's legislative objectives, clarified the role of the AFMA member and of casual observers, and reminded members of their roles and responsibilities as a MAC member.

6. SBTMAC noted the report from the Chair.

1.4: Confirmation of minutes from SBTMAC 34

7. SBTMAC agreed that the draft minutes from SBTMAC 34 should reflect that Mehdi Doroudi attended the meeting as the permanent observer representing the state government sector rather than as a casual observer.

8. With this amendment, SBTMAC accepted the provisional minutes as a true and accurate account of the discussions from SBTMAC 34.

1.5: Action arising from SBTMAC 34 and subsequent intersessional work

9. SBTMAC noted that action item 3 from the previous meeting – relating to AFMA compliance clarifying the permit conditions requiring an operational VMS to be on carrier boats when the vessel is transferring fish to port – remains outstanding.

Action Item 1: AFMA to clarify VMS permit conditions for carrier vessels transferring fish to port

10. Aside from action item 3, SBTMAC expressed satisfaction with the status of all other issues arising from SBTMAC 34 and issues addressed intersessionally since September 2010.

Agenda Item 2: State of the fishery

2.1: Informal industry report on the 2010/11 catching season, markets and outlook

11. Industry members informed SBTMAC that the 2010/11 catching season had been very good, and while variable weather in February and March disrupted fishing, overall there were plenty of sightings of SBT schools, catch rates were high and the fish were generally in very good condition.

12. Industry further advised that the grow-out season had also been successful, with mortality rates much lower than in previous seasons and the fish in excellent quality. Overall, industry advised that 2010/11 had been a good season.

2.2: Informal reports from other stakeholders

13. The permanent observer from the recreational sector commented on the high quality of the SBT taken by the recreational sector in 2010/11, reiterating the advice provided by industry. The permanent observer also advised that nationally, 3000 SBT were tagged and released by recreational fishers, making the SBT tagging program the largest tagging program within the recreational sector.

14. The conservation member advised that the general view across environmental NGOs with an interest in SBT remained precautionary and there was widespread support for CCSBT implementing a management procedure as soon as possible. There was also growing concern regarding the management of the Australian recreational catch.

15. In regard to the east coast longline fishery for SBT, the AFMA member advised that oceanographic conditions were similar to last year in that unlike earlier years, the SBT zone has not moved much north of Newcastle. The catch was estimated at being in excess of 100 mt, high relative to recent years, with the fish being of variable quality.

16. SBTMAC thanked the industry and conservation members and the permanent observer from the recreational sector for their updates.

Agenda Item 3: Research issues

3.1: Outcomes from the 2011 CCSBT Scientific Committee meeting

17. The scientific member recounted the main outcomes from the 2011 CCSBT scientific committee meeting:

- i) the 2011 stock assessment found that although the SBT spawning stock biomass remains very low, the future outlook is more positive than previously thought with an increase observed in the aerial survey and longline CPUE indices;
- ii) a consensus recommendation to CCSBT to adopt a single preferred management procedure; and
- iii) Japan's continued interest in Australian farm management practices.

18. The scientific member noted that there was consensus agreement within the Committee regarding the scientific assessment and the status of the stock.

19. Industry expressed its appreciation to the scientific member for his effective leadership and coordination of the Australian delegation during the Scientific Committee meeting.

3.2: Report from the Research Sub-committee meeting held morning of 12 September

20. The scientific member, as Chair of the Research Sub-committee (RSC), gave a verbal summary of the outcomes from the RSC meeting held in Canberra earlier that morning. Key points arising from the meeting were:

- i) agreement to convene a strategic research meeting before the end of the year to consider issues such as:
 - the results – and implications – of the close-kin genetics and global/spatial tagging studies;
 - the future of the GAB aerial surveys;
 - the ongoing monitoring requirements associated with the recommended Management Procedure;
 - future stock assessment needs; and
 - future SBT research funding arrangements.

Action Item 2: Strategic research meeting to be convened before end of 2011
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- ii) that an ABARES proposal to estimate the size of the domestic recreational catch in 2012 is expected to be forwarded to SBTMAC for consideration;
- iii) AFMA and the Executive Officer to liaise with FRDC to clarify the level of FRDC-funded wild sector research commissioned in recent years;
- iv) advice that there are no research funds available at the present time to support CSIRO's ongoing involvement in any intersessional SBT scientific work for the rest of the 2011/12 financial year or for 2012/13; and
- v) plans by BP to undertake 3D seismic testing in the GAB from October 2011/March 2012.

21. SBTMAC endorsed the outcomes from the RSC meeting.

Agenda Item 4: Compliance issues

4.1: Report from the Compliance Sub-committee meeting held morning of 12 September

22. John Andersen from AFMA Compliance gave a verbal presentation of the outcomes from the Compliance Sub-committee meeting held in Canberra earlier that morning. Key points arising from the meeting were:

- i) support from both AFMA and industry for the centralized compliance model;

- ii) ideas to improve the effectiveness of the pre-season briefings;
 - iii) noting that the CCSBT review of the CDS identified a number of administrative changes, none of which involved substantial changes;
 - iv) some issues in regard to CDS compliance in the ETBF but recognition that these are largely confined to a small number of operators;
 - v) completion of the 2011/12 domestic compliance risk assessment;
 - vi) noting an extension of the current AAR contract to 30 June 2012, with the subsequent contract to be administered through the Australian Government's AusTender process;
 - vii) potential ideas to improve the utilisation of the GoFish system; and
 - viii) noting that the possible introduction of a fee-for service charging system for the level 2 and 3 company audits will be considered as part of a broader AFMA-wide fee-for service review.
23. SBTMAC endorsed the outcomes from the CSC meeting.

Agenda Item 5: Domestic management issues

5.1: Consideration of 2011 commercial trial of stereo video

24. Despite lengthy discussion, SBTMAC was unable to reach a consensus position regarding any of the four objectives set for the stereo video trial, that is, whether stereo video:
- i) is cost effective;
 - ii) is practical;
 - iii) can deliver estimates of the average weight of SBT within an appropriate timeframe; and
 - iv) can deliver unbiased estimates both within season and from season to season.
25. SBTMAC agreed to the wording of a letter to the AFMA Chair outlining SBTMAC's discussion of this agenda item. A copy of the letter is annexed as Attachment B.

5.2: Proposed 2012 observer program

26. In response to a question from industry members, AFMA advised that Australia is interpreting its observer obligations to the CCSBT as requiring 10% observer coverage of towing operations on the basis that the towing is considered part of the catching operation. Industry members did not accept this interpretation and considered it unnecessary to require 10% observer coverage of the tows.
27. Industry expressed strong objection to the wording of observer conditions (condition 6a) of the Wildlife Trade Operation approval granted for the SBT fishery by the Australian Government in October 2010.
28. The meeting also noted that the former practice of using an international observer on at least one trip has been discontinued, such that all observing will be undertaken by domestic observers, and that the proposed 90 days of observer coverage set for the 2011/12 season is based on the existing Australian TAC.
29. Industry members reiterated their long-standing concern regarding the need for AFMA to indemnify vessel owners/operators for any injuries experienced by observers while on their work-site – that is, while on their vessels. Industry expressed its frustration that despite many years of discussion, this issue remained unresolved.
30. AFMA reiterated previous advice that an indemnity would not exclude vessel owners/operators from being responsible in situations where there was found to be negligent behaviour and agreed to gather further information so as to clarify the occupational health and safety aspects/responsibilities/obligations in regard to the observer program.

Action Item 3: AFMA to clarify occupational health and safety matters concerning the observer program

5.3: Proposal to change the timing of the SBT quota year

31. Industry members reiterated their previously expressed desire to change the date of the Australian fishing year from the current 1 December to 1 October in order to:

- i) align the start of the Australian season with that of New Zealand, to allow for the possible eventuality of the CCSBT agreeing to the international trade of quota;
- ii) give the purse seine fishery greater flexibility in terms of possibly starting their fishing season in October/November, a scenario that may become more likely should the current 10 kg rule be abolished.

32. The AFMA member advised that this issue has been discussed with DAFF and that AFMA is considering the implications of the change, and in particular, whether the season preceding such a change should be of 10 months or 22 months duration.

33. Members also noted that a change in the timing of the Australian season might be more appropriately implemented within the context of the CCSBT agreeing to national allocations in a 3-year block as may be agreed at this year's CCSBT meeting.

34. SBTMAC further noted that this issue is not time-critical and agreed to reconsider the matter in the context of the outcomes from the 2011 CCSBT meeting.

Action Item 4: SBTMAC to consider changing the starting date of the domestic fishing season

5.4: SBT budget issues

5.4.1: Status of AFMA's 2011/12 budget

35. SBTMAC noted the status of AFMA's draft 2011/12 SBT budget.

36. SBTMAC also noted that should SBT TACs increase, modest increases can be expected in observer, logbook and data management costs.

37. The scientific member, as Chair of the RSC, advised the meeting that due to an oversight in not submitting a research proposal, the draft 2011/12 budget includes no allowance for CSIRO to undertake any scientific work that the forthcoming CCSBT meeting may consider necessary.

38. SBTMAC acknowledged the difficulty in preparing an EoI prior to the CCSBT having identified the scientific work required.

39. SBTMAC also recognized that former funding sources such as the Fisheries Resources Research Fund (FRRF) administered by DAFF and the AFMA Research Fund (ARF) now have less funding available and that securing funding is becoming increasingly competitive.

40. SBTMAC considered the immediate gap in research funding for 2011/12 intersessional science support identified by the scientific member a matter of some concern and encouraged an appropriate Expression of Interest (EoI) to be developed for consideration at the October ComFRAB meeting as a matter of priority.

Action Item 5: Encourage development of an appropriate EoI for intersessional science support

41. In this context SBTMAC also noted:

- i) advice from AFMA that the RAG funding formerly available for such work was no longer available such that the costs of any approved work would most likely be funded 80% by industry and 20% by government; and
- ii) that ComFRAB's 2012/13 research cycle has commenced and that there has not as yet been any EoI submitted for any SBT intersessional science work in 2012/13.

5.5: Status of SBT live release trial

42. SBTMAC welcomed advice from AFMA and industry that a successful live release trial was conducted in May 2011 and that of an estimated 1000 fish, only two mortalities were observed.

43. SBTMAC further noted that the existing provisions for the live release trial apply for the 2011/12 and 2012/13 seasons.

5.6: Environment update

5.6.1: DSEWPaC proposals re South-west Bioregion

44. The DSEWPaC observer advised that:

- i) submissions on the draft Marine Bioregional Plan and Commonwealth marine park network proposed for the South West Marine Region closed on 8 August 2011 and that in excess of 40,000 submissions were received, many of these being associated with environmental and recreational fishing campaigns;
- ii) there are approximately 200 substantive submissions, including 1 from the commercial fishing industry; and that
- iii) despite the logistical and administrative demands associated with managing such a large number of submissions, DSEWPaC's intent is still to release the revised plan and marine park network late this year/early next year.

45. The scientific member advised that ABARES is undertaking a socio-economic analysis of the South-west Marine Region for DSEWPaC and that the work has included liaison with the Commonwealth Fisheries Association (CFA) and a survey of commercial fishers. ABARES expects to forward a draft of the report to DSEWPaC in mid-late October.

46. Industry advised that it was not anticipating the proposed plan and network of marine parks to have a major impact on existing fishing operations though it is likely that operators will be towing through a closed area. Industry also commented that the compliance costs associated with implementing the plan may be significant.

47. The State Government permanent observer encouraged DSEWPaC to liaise with appropriate state government agencies, particularly in regard to managing any displaced fishing effort/catch.

5.6.2: Commonwealth review of the EPBC Act

48. AFMA advised that the main fisheries outcomes from the review of the EPBC Act are:

- i) a streamlining of the existing accreditation processes;
- ii) establishing of a single list of threatened, endangered and protected (TEP) species;
- iii) a new process to evaluate the listing of highly migratory species; and
- iv) specific reference to the Commonwealth Fisheries Harvest Strategy Policy.

49. Industry considered these positive outcomes – particularly the proposed streamlining of accreditation processes – and congratulated AFMA for helping achieve these improvements.

5.6.3: Commonwealth/State Government polices re GAB seismic surveys

50. SBTMAC noted that a large-scale seismic survey is planned in the GAB this coming season.

51. AFMA advised SBTMAC that its role in regard to proposed seismic survey activity is limited to that of a clearing house, providing information on the type and level of fishing activity in the area under question to either the government department/agency or at times the company involved, and that having provided this information, AFMA has no ongoing role in any subsequent discussions/negotiations.

5.6.4: Listing of SBT by Australian, NSW and Victorian Governments

52. SBTMAC noted information from AFMA advising that:

- i) in December 2010 the Australian Government listed SBT as ‘conservation dependent’ under the EPBC Act, with commercial fishing still allowed and without the requirement to develop an SBT recovery plan;
- ii) in 2004 the New South Wales Government declared SBT as an endangered species such that in NSW waters there can be no commercial take (though recreational fishing can continue, albeit subject to a bag limit); and that
- iii) the Victorian Government has listed SBT as a threatened species, prohibiting any commercial take in Victorian waters, with Ministerial exception required to allow recreational take which, if granted, allows fishing subject to a catch limit of 2 per person.

5.6.5: ERA outcomes for the SBT fishery

53. SBTMAC noted advice from AFMA that SBT was the only species identified as being high risk in the fishery at either the level 2 or level 3 analysis and that the next review of the SBT ERA is scheduled for 2013.

5.7: Other domestic management issues

54. The conservation member stressed the need to evaluate the likely biological implications of allowing international trade of SBT quota – particularly the likely impacts of any expansion of effort within the GAB and increased targeting of juvenile fish – before making any decision to allow such trade.

55. An industry member sought information on the legality of catching under 10 kg fish in order to trial the commercial viability of an extended grow-out of small fish. The AFMA member suggested that a detailed proposal outlining the intended trial be submitted to AFMA for proper assessment.

Agenda Item 6: Next meeting

56. SBTMAC agreed to next meet in September 2012.

Peter Neville
SBTMAC Chair
28 September 2011

Meeting of the Southern Bluefin Tuna Management Advisory Committee (SBTMAC 35)

12.30 - 5pm Monday 12 September 2011
AFMA Aquarium Room - 6th floor, Bank West House,
73 Northbourne Avenue Canberra

Agenda

- 1. Preliminaries/matters arising**
 - 1.1 Opening remarks/apologies/acceptance of agenda
 - 1.2 Pecuniary interest declaration
 - 1.3 Outcomes of AFMA-convened MAC/RAG workshop
 - 1.4 Acceptance of draft minutes SBTMAC 34 September 2010
 - 1.5 Action arising SBTMAC 34 and intercessional work
- 2. State of the Fishery**
 - 2.1 Informal industry report on the 2010/11 catching season, markets and outlook
 - 2.2 Informal reports from other stakeholders
- 3. Research issues**
 - 3.1 Outcomes from the 2011 CCSBT Scientific Committee meeting
 - 3.2 Report from the Research Sub-committee meeting held morning of 12 September
- 4. Compliance issues**
 - 4.1 Report from Compliance Sub-committee meeting held morning of 12 September
- 5. Domestic management issues**
 - 5.1 Consideration of Commercial trial of Stereo Video
 - 5.2 Proposed 2012 observer program
 - 5.3 Proposal to change timing of the SBT quota year
 - 5.4 SBT budget issues
 - 5.4.1 Status of AFMA's 2011/12 SBT budget
 - 5.4.2 Other AFMA budget issues
 - 5.5 Status of SBT live release trial
 - 5.6 Environment update
 - 5.6.1 SEWPaC proposals re South West Bioregion
 - 5.6.2 Commonwealth review of the EPBC Act
 - 5.6.3 Commonwealth/State Government policies re GAB seismic surveys
 - 5.6.4 Listing of SBT by Australian, NSW and Victorian Governments
 - 5.6.5 ERA outcomes for the SBT Fishery
 - 5.7 Other domestic management issues
- 6. Next meeting**

15 September 2011

The Hon Michael Egan FAICD
Chairman
Australian Fisheries Management Authority
Box 7051
Canberra Business Centre ACT 2610

Dear Michael,

SBTMAC consideration of the 2011 Stereo Video Trial

I am writing to inform you of the outcomes from SBTMAC's consideration of the 2011 stereo video trial, as requested in your letter dated 2 September.

SBTMAC considered this issue at its meeting in Canberra on 12 September. The SBTMAC meeting was attended by the Chair, the AFMA member, the scientific member, the conservation member, three farm industry members (the fourth farm industry member provided written comments prior to the meeting) and Permanent Observers from the non-farm industry sector, the recreational sector and the state government sector.

In considering this issue, SBTMAC had access to the Supporting Policy and Performance Measures for the 2011 Commercial Stereo Video trials (the Supporting Policy), the Stereo Video Working Group report (the SVWG report) and the review of the SVWG report undertaken by DSI Consulting (the DSI report).

SBTMAC noted that the SVWG report does not specifically address the extent to which the trial objectives were met. SBTMAC also noted that while the DSI report challenged some of the views expressed in the SVWG report, the SVWG has not as yet had an opportunity to respond to the DSI report.

Despite lengthy discussion, SBTMAC was unable to reach a consensus position regarding any of the four objectives set for the stereo video trial, that is, whether stereo video:

- i) is cost effective;
- ii) is practical;
- iii) can deliver estimates of the average weight of SBT within an appropriate timeframe; and
- iv) can deliver unbiased estimates both within season and from season to season.

The differing views expressed by SBTMAC members and Permanent Observers under each of these four objectives are summarized below. A written submission provided to SBTMAC on behalf of the four industry members and the non-farm industry permanent observer is annexed as Attachment A.

Cost effectiveness

SBTMAC noted the SVWG's estimate of:

- i) the initial capital costs of purchasing the required cameras/software is \$168,000; and
- ii) the costs of analyzing the stereo video footage is approximately double that of the current method.

The four industry members and the non-farm industry permanent observer tabled their view that the AFMA estimate does not take into account additional one-off and recurring

management costs associated with dealing with the increased number of fish that will be caught following the subsequent abolishing of the 10kg rule. In industry's view, these additional costs could make stereo video up to three times the cost of the package of rules associated with the current sampling system.

The conservation member commented that any analysis of cost effectiveness should take into account the potential costs to Australia – in terms of possible delays in resolving broader CCSBT-level initiatives – from not implementing stereo video. In this context industry members considered there was a low likelihood of Australia's decision regarding stereo video affecting decisions at the forthcoming CCSBT meeting but recognized this may become more of an issue at future CCSBT meetings.

Practicality

SBTMAC noted the finding from the SVWG report that the stereo video equipment, inclusive of bracket mountings, weighs 15 kg, 3 kg more than the mono video equipment currently in use but still below the 16 kg safe handling weight established under South Australian manual handling legislation for a single person. The AFMA member also advised that any occupational health and safety risks associated with using such equipment in at-sea conditions will require proper assessment and management.

In regard to health and safety issues, industry members noted that carrying and installing of the stereo video equipment had not as yet been tested in the offshore areas where the seas are rougher than those experienced in the areas used for the 2011 trials (industry suggested that by 2013 up to 40% of the transfers would be in these new offshore zones). While welcoming an undertaking from AFMA that it would be the AFMA contractor carrying the stereo video equipment, industry wanted the contractor to indemnify the ranching company of any responsibility for any claim that considered the ranching site as being an unsafe workplace.

SBTMAC also noted the SVWG's finding that the trials demonstrated the stereo video equipment can be set-up in time comparable to that of the current mono camera, that the equipment is robust in commercial at-sea conditions and that throughout the trial the equipment maintained calibration within the agreed 1 per cent tolerance limit.

Industry members concurred with the SVWG's assessment of the efficiency and robustness of the stereo video equipment. Industry further added that while measurements from all transfers were within the agreed 1 per cent tolerance level, the stereo video equipment tended to over-measure length in almost all cases.

Ability to deliver estimates of average weight within an appropriate timeframe

SBTMAC noted advice from the AFMA member that the stereo video system as trialled could only deliver average weights after the transfer was completed as opposed to the real time weight estimate provided from the current 40 fish sampling.

The four farm industry members and the non-farm industry permanent observer noted that the lack of real time weight data would generate a number of significant operational issues for industry and negatively affect industry profitability due to:

- i) a greater risk of either overstocking (and hence incurring additional adverse impacts on fish health/mortalities/reduced growth rates) or understocking (incurring associated cost and efficiency implications);
- ii) increased legal problems at the Australian Government level due to an increased risk of exceeding quota allocations;

- iii) increased risk of violating South Australian aquaculture regulations on maximum stocking rates and environmental impact benchmarks; and
- iv) increased costs associated with more live releases.

Industry members suggested that the majority of these operational issues could be addressed if the stereo video system was capable of providing real time weight data and noted that the research provider had been awarded funding from the Australian Research Council (ARC) to explore the feasibility of automating the system to produce real-time weight estimates.

SBTMAC recognized that fully automating the system – to include the selection of fish - was technically challenging and that given the uncertainties involved, considered it preferable to base the current assessment on the effectiveness of the existing non-automated stereo video system.

Industry members reiterated their concern that introducing stereo video in its present form would significantly increase the risk to quota holders of exceeding their quota allocations. The AFMA member acknowledged this but considered individual quota holders responsible for managing the increase in risk.

In this context, SBTMAC noted that CCSBT was actively considering undercatch and overcatch provisions which, if agreed, may provide industry with greater operational flexibility.

The AFMA member further advised that in the context of AFMA's legislative responsibilities, the purpose of the stereo video system is to obtain a more precise estimate of the weight of fish transferred into each grow-out cage. Accordingly, AFMA treated any impacts of the stereo video system beyond the point of initial transfer as being secondary considerations.

Other members questioned the merits of this approach, referred to AFMA's economic efficiency and optimum utilization objectives and suggested that AFMA should consider the impact of the stereo video system on the overall profitability of the integrated catching and ranching businesses.

The AFMA member further stated that under the 40 fish sampling, industry had been able to access and utilize AFMA's quota monitoring data to assist their cage management practices but that AFMA was under no obligation to continue to provide industry with such real time data into the future.

Ability to deliver unbiased estimates within season and from season to season

SBTMAC noted advice from AFMA that the trial had successfully measured 50% of the fish transferred and that overall, there was no statistically significant difference in the size of fish measured and those unable to be measured.

The four farm industry members and the non-farm industry permanent observer noted that there was conflicting advice on the likelihood of there being bias in the current 40 fish sampling and the results from the stereo video trial (as discussed in the DSI report) and consider that further work is required to resolve these contradicting views.

The scientific member suggested that:

- i) compared to the existing sampling method - 40 fish from a tow cage of between 8000-10,000 fish - the stereo video approach, even were it to only measure 10% of the 800-1000 fish involved in each transfer, provided far greater sample size and more robust catch estimates; and that

- ii) based on an analysis of the data obtained from the 40 fish sampling over a 15 year period, the relationship between length and weight for the juvenile fish caught by the Australian fleet is tightly correlated both within and across seasons.

In other comments:

- i) in regard to timing, SBTMAC noted that if the 2011 trial was deemed a success:
 - AFMA was obligated under the agreed CCSBT resolution to adopt the stereo video systems in the following season as the systems for ongoing monitoring; and
 - AFMA was obligated under the provisions of the Wildlife Trade Operation approval for the SBT fishery granted under the EPBC Act in October 2010 to implement stereo video by the start of the 2012 fishing season;
- ii) there was widespread – though not consensus - agreement that the remaining issues associated with the stereo video approach are more policy/process orientated than technical and that as a result, there was no obvious need to undertake more stereo video trials in the 2011/12 season;
- iii) the state government permanent observer, recognising the likelihood of increased violations of South Australian environmental regulations should stereo video be introduced, encouraged the Australian Government to give more consideration to the likely impact of its decisions on State regulations; and
- iv) the conservation member reiterated his long-standing view that a detailed assessment of the likely impacts of abandoning the 10kg rule should be undertaken before the rule is changed.

In the absence of any firm recommendations in the SVWG report regarding the success of the trial, some SBTMAC members and permanent observers not closely involved with the stereo video issue found it difficult to assess the success of the trial. The uncertainty regarding whether AFMA's economic efficiency and optimum utilization objectives extended beyond the point of transfer of SBT into the grow-out cages and the conflicting statistical views regarding the 40 fish sampling and the stereo video trials further complicated SBTMAC's discussions.

Consequently, SBTMAC was unable to reach a consensus position on any of the four objectives set for the stereo video trial.

Yours sincerely



Peter Neville
SBTMAC Chair

attach: written comments submitted to SBTMAC on behalf of industry members and non-farm industry permanent observer

Conclusions from Industry Members and Non-farm Industry Permanent Observer on whether Stereo Video meets the criteria for success

Issue

In a letter dated 2/9/11 to the SBTMAC Chair, the Chair of AFMA has requested that SBTMAC discuss and provide advice on the results of the stereo video trial with particular reference to the objectives which were to determine if the stereo video system:

- i) is cost effective;
- ii) is practical;
- iii) can deliver estimates of the average weight of SBT within an appropriate timeframe; and
- iv) can deliver unbiased estimates both within season and from season to season.

Conclusions

The four Farm Industry Members and the Non-farm Industry Permanent Observer noted that the current SV system clearly did *not* meet three of the four objectives (cost effective, practical, appropriate timeframe). On the fourth objective (inter/intra seasonal bias), they noted that there was conflicting evidence, and further assessment was required. Their conclusion was that the current SV system was *“not successful”* for introduction at this stage. However, significant improvements could possibly be made *in time* which would move SV closer to meeting the four objectives.

They also noted that in any case the AFMA statement in the SBTMAC briefing papers was that:

“Following any decision to implement stereo technology in the Southern Bluefin Tuna Fishery a competitive tender process compliant with the Australian Government Procurement Policy will need to be conducted. Tenders will need to be sought for both the supply of hardware and for a service provider to conduct sampling and analysis. It is highly unlikely that any tender process could be completed before the start of the 2011/12 season.” (para 26).

The four Farm Industry Members and the Non-farm Industry Permanent Observer also emphasised that there was already significant further ongoing work or pending which would lead to more informed consideration by Australia of SV:

- a. They understood that the trial contractor had been given an ARC grant which covered automation of the SV software to allow real time calculation of the average weight. This would assist to resolve some of the major problems with the current SV system.
- b. On 3-7 October 2011, ICCAT’s Scientific Committee (Standing committee on Research and Statistics) is due to consider reports from ICCAT Members on trialling of SV, including by the EU, a CCSBT Co-operating Non-Member. EU experts had visited Port Lincoln during the SV trial. These reports may add knowledge to key areas where the current SV system did not meet the objectives set for the Australian trial. It may also allow sharing of the cost between ICCAT countries and Australia of further SV trialling.

- c. On 13 October 2011, the CCSBT is due to decide on whether to allow Member countries to have quota unders and overs. This was an important issue for three of the four SV objectives (practicality, cost-effectiveness, and appropriate time availability of the average weight). At this stage, the CCSBT appeared to favour carry-forward of undercatch, but not allow any catch over an annually allocated quota. If no overcatch is allowed, then it has significant implications for the objectives requiring SV to be practical and for the timely availability of the average weight.
- d. Though not raised in the AFMA Chair's letter to SBTMAC, the Commission had written to the industry a number of times that if SV was introduced then the current rule excluding under 10 kg fish from the current weight sample would be deleted at the same time. This would lead to a major change in the industry's catching and ranching pattern. This required lead times of up to six months to source the new sites and equipment required.
- e. They noted that the SVWG had not included some of the extra costs of adopting SV, and the cost effectiveness data needed to be re-calculated. The current SV system cost was already slightly more than twice the existing sampling system. To this would now need to be added one-off legal and administrative costs (estimated \$30,000 by AFMA), and the major annual recurring costs of the effect of catching smaller fish on the SV sample size), more releases of live fish, and the costs of re-transfers (of the excess fish transferred into a holding pontoon back into a holding pontoon where possible). These costs would add considerably to the initial and recurring SV cost.
- f. They also noted that there was a need to clarify how SV met the Objectives in the Fisheries Management Act 1991. This included the Objectives on Economic Efficiency and Optimum Utilisation of a wild stock. At the current stage of SV development (eg retrospective availability of the average weight), the system would build in inefficiencies and under-utilisation.
- g. They also noted that under the October 2010 WTO, AFMA was required to notify SEWPaC of any measures that reduce or increase the probability of overcatches or maximise the survivorship of released fish (Provision 7). Clearly SV in its current form would increase the probability of overcatches and of mortalities of fish for release – and Provision 7 would be released.

The four Farm Industry Members and the Non-farm Industry Permanent Observer emphasised that introduction of SV without prior or real time availability of the average weight would be knowingly introducing a system which would inevitably lead to operators breaching both Commonwealth law (ie overcatch) and SA law (ie overstocking and environmental impact). This could be possibly avoided by further development of the SV system so operators would know the average weight before or during the weight count.

Criterion One: Is it Cost Effective?

The four Industry Members and the longline Permanent Observer emphasised:

- (1) It was now clear that the SVWG had not taken into account additional one-off and recurring costs. The biggest one was that there would be a large increase in fish numbers with the end of the 10kg rule. Measuring the fish, and validating the measurement, was the largest incremental cost of SV. This could make the SV three times the cost of the current sampling system package of rules.

- (2) AFMA had made the point in the briefing notes for SBTMAC that this extra cost needed to be compared with the benefits of any increase in precision. The Members/Permanent Observer noted that any increase in precision was in doubt, and in any case, could not match the large increase in costs.

Criterion Two: Is it practical?

The four Farm Industry Members and the Non-farm Industry Permanent Observer emphasised:

- (1) The Policy agreed by the AFMA Commission and the SVWG required that to be practical the trial SV had to satisfy a number of criteria – including whether the SV:
 - a. Enabled “operators to meet SA Government legislation on stocking rates
 - b. “Is it more difficult for industry to manage the quota?”
 - c. “Are there any negative effects on fish health?”

They saw these important criteria as not being currently satisfied by the SV. Clearly, operators would often breach SA laws, there would be negative effects on fish health from overstocking, and it is much more difficult to manage the quota whether or not the CCSBT agreed to quota unders/overs.

- (2) They noted that the SV was considerably heavier than the current mono equipment, and near the limit allowed under OHS law in SA. This limit applied to stable platforms – not to the rough conditions encountered at sea. They also reminded the meeting that the new offshore Wild SBT Ranching Zone, with continuous heavy seas, would be fully approved in November 2011. None of the three offshore trial farms in 2011 were part of the SV trial.

By 2013, it was anticipated that 40% of the transfers would be in the new Zone. It is highly likely that manual movement of the current SV equipment would be considered unsafe under SA law. The agreement with AFMA that the contractor does the carrying of the SV equipment was a first step. The next required step is for the contractor to indemnify the ranching company of any responsibility for any claim that the site was an unsafe workplace.

Criterion Three: Can SV deliver estimates of the average weight of SBT within an appropriate timeframe?

The four Farm Industry Members and the Non-farm Industry Permanent Observer noted that:

- (1) The SV trial contractor had committed to AFMA in late 2010 that they would be able to provide real time average weights. This was then withdrawn.
- (2) The main interpretive clause in the Policy issued by the Commission on whether this criterion is met are:
 - Is the overall time taken to undertake the SV count and measurement more than conducting a 40 fish sample plus normal counts?

Clearly the answer is yes – see SVWG costings.

- (3) The biggest problems with not having a prior/real time average are:
 - The impact on fish health/mortalities and growth from overstocking.
 - The cost and efficiency impact of understocking
 - The legal problems of exceeding quota
 - The costs of more live releases

They noted again that many of these barriers would be resolved when the contractor is able to develop the software to supply real time average weight.

Criterion Four: Can (SV) deliver unbiased estimates both within season and from season to season?

The four Farm Industry Members and the Non-farm Industry Permanent Observer noted that SBTMAC was faced with often conflicting advice on this issue. For example, as summarised in the AFMA briefing (paras 20-21) for the meeting:

“Overall, analysis by ABARES confirmed that the sampling strategy employed was able to produce an unbiased estimate of the lengths fish transferred and was relatively robust to different sampling strategies. There is a tendency for larger fish to be considered unmeasurable and there was a significant difference in lengths between measurable and unmeasurable fish in 3 of the 8 transfers.

A single length-weight conversion factor was applied to fish during the trial and variation between seasons was not tested. Industry have highlighted that there is considerable variation both across seasons and within seasons and the issue of a length-weight conversion factor needs to be resolved before any implementation of the technology. ABARES analysis shows that length and weight within and across seasons are tightly correlated, especially for the juvenile fish typically caught by the Australian industry.”

“ No comparison of the accuracy of the two methods (SV and current system) is able to be made.” (para 22)

Further, the study by DSI Consulting concludes the following:

“Accordingly the conclusion that we draw from Humphries et al (2009) is that the true key changes within and between seasons and so there will be biases if a constant key is applied within seasons and between seasons.” (page 7)

“There were large variations in the percentage of fish that could be measured across the 8 transfers and also in whether or not there was a significant difference between the measured and unmeasured fish.” (page 4). Further:

“This means that 3 out of 8 times the stereo video technique was shown to significantly underestimate the length of the fish and so the inputs to the length/weight key were significantly biased.”(page 4).

“The precision at the tow level and the quota level for the season has been discussed at length in DSI Consulting (2005) and Fushimi et al (2006) where it was shown that if the objective is to have a precise estimate of the whole season's catch then the 40-fish sample is adequate.” (page 8).

Given these points, it is not clear to what extent there is bias in the current SV system. Certainly there is significant bias in the exclusion of some categories of fish, and there is bias in the scale bar measurement (see para 17 of AFMA brief for SBTMAC). Further work is required to quantify these.

Analysis of recommendations against AFMA's legislative objectives

The four Farm Industry Members and the Non-farm Industry Permanent Observer noted:

- (1) AFMA's view that "for the sustainable management of the fishery and Australia's credibility in the CCSBT it is important that the process for estimating the weight of fish transferred is both accurate and precise."
- (2) AFMA's conclusion that "No comparison of the accuracy of the two methods (SV and current system) is able to be made." (para 22). AFMA's conclusion that SV would improve the precision of the weight sampling because of the number of samples. AFMA noted that these improvements needed to be balanced against the increased costs.

The view of the four Farm Industry Members and the Non-farm Industry Permanent Observer was that AFMA had not considered all the Objectives of the Fisheries Management Act 1991. AFMA also had a responsibility to take into account the Economic Efficiency and Optimum Utilisation Objectives. The reality is that if AFMA was to adopt the SV in its current form, AFMA would knowingly build inefficiency and under-utilisation into the fishery.

Their view also was that judgements on Australia's credibility in the CCSBT are very subjective, and also not part of AFMA's legislative Objectives.

Requirement to report on whether any changes in the current management arrangements that would be required to successfully implement stereo video.

The four Farm Industry Members and the Non-farm Industry Permanent Observer noted that this requirement is listed in the Policy (page 42) as one of the four important points for reporting. However, it does not appear to be in any part of the documents.

They noted again the statement in the AFMA briefing notes for SBTMAC that:

"It is highly unlikely that any tender process could be completed before the start of the 2011/12 season." (para 26)

They further noted that the tender process appeared to be only one example of the substantial process which appeared to be required to successfully implement SV for 2011/12. Other examples were:

- (1) Further amend the SBT Management Plan to cover full implementation of SV. This included default positions in the event of an equipment or other failures, and any change in the length/weight conversion formula, allowance for over-quota, permanent revocation of the 10kg rule, and for more live releases.
- (2) Major changes in the SBT Budget. Carrying over of significant Budget deficits are no longer allowed.