

Torres Strait Tropical Rock Lobster Resource Assessment Group

Meeting Record

31 March 2016

Face-to-face meeting

Note all meeting papers and record available on
the PZJA webpage:

www.pzja.gov.au



Australian Government

Australian Fisheries Management Authority

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Meeting Participants

Members

Name	Position	Declaration of interest
Ian Knuckey	Chair	Nil
Dean Pease	TRLRAG Executive Officer	Nil
Selina Stoute	AFMA Member	Nil
Eva Plaganyi	CSIRO Scientific Member	Project staff for PZJA funded TRL research projects.
Andrew Penney	Independent Scientific Member	Member of other RAG's and research consultant
Mariana Nahas	TSRA Member	Nil
Tom Roberts (phone)	QDAF Member	Nil
Daniel Takai	Industry Member	Pearl Island Seafood; Tanala Seafood; and Supports other commercial fishing interests in Torres Strait
Mark David	Industry Member	TIB licence holder
Terrence Whap	Industry Member	Nil
Les Pitt	Industry Member	TIB licence holder
Aaron Tom	Industry Member	Nil
Brett Arlidge	Industry Member	General Manager MG Kailis, holder of TVH licences
Ray Moore	Industry Member	TVH licence holder

Observers

Name	Position	Declaration of interest
Kenny Bedford	TSRA Fisheries Portfolio	TIB licence holder, Erub Fisheries Association president
Darren Dennis	CSIRO Scientific Observer	Project staff for PZJA funded TRL research projects
Meremi Maina	PNG Industry Observer	PNG fishing licence holder

Action Items

Number	Action
1.	AFMA to advise TRLRAG members and observers when final arrangements for the PZJA meeting have been made.
2.	AFMA to circulate the sea-surface water temperature website to the TRLRAG members and observers out-of-session.
3.	AFMA to circulate the paper detailing the impact of mobile sediments and lobster abundance to TRLRAG members and observers out-of-session.
4.	CSIRO to further test the performance of a preferred harvest control rule option (details of rule in paper).
5.	CSIRO to present results of the harvest control rule testing accounting for recommendations by the TRLRAG (details in paper).
6.	AFMA to send industry members an educational DVD on understanding stock assessments and harvest strategies (FRDC Project 2010-306).
7.	AFMA to present a draft harvest strategy paper at the July/August TRLRAG meeting.
8.	CSIRO to include as an appendix to the paper the details of testing decisions, including options that are removed at the July/August TRLRAG meeting.
9.	CSIRO to present written report on the justification of the relative weighting of data under the harvest control rule at the July/August TRLRAG meeting.

Preliminaries

Apologies / adoption of agenda / declaration of interest

Apologies were received from Phillip Ketchell (Industry Member), Maluwap Nona (Chairperson Malu Lamar), Ian Liviko (PNG NFA) and Joseph Posu (PNG NFA).

The TRLRAG adopted the agenda with no changes.

The Chair welcomed newly appointed and returning participants and members for the new 3-year tenure of the RAG. The RAG thanked the input and commitment of the previous chair — John Pollock — and the previous scientific member — Nokome Bentley.

The TRLRAG generally noted that there could be potential conflicts of interest for members and observers when providing information and advice on some agenda items. It was agreed for members and observers to remain present for discussions noting their important contribution based on experience and expertise. The Chair explained that members may be asked to leave the room for certain agenda items if specific conflicts arose, but that no offense should be taken from this.

The Chair presented the PZJA Fisheries Management Paper No. 1 with an emphasis on the roles and functions of the TRLRAG and the responsibilities of members and observers in the TRLRAG.

Agenda Item 2 - Updates

The TRLRAG noted the following updates provided by members and observers:

- The AFMA member noted the Commonwealth Government has brought forward the budget to be delivered on 3 May 2016; as a result the Commonwealth minister responsible for fisheries cannot attend a PZJA meeting on Thursday Island. Alternative arrangements for the meeting are being reviewed; no final decision has been made.
- Industry members noted the season started well with more TRL caught compared to 2015. During the months of January and February there was high quality product with an expected rate of rejections (lobster not accepted for the export market). During the month of March, however, there was a higher rate of rejection coinciding with a spike in sea temperature. It is believed TRL become moribund and more susceptible to mortality from higher water temperatures when they are held in the fishing vessel at high stock densities. Industry members noted TRL caught at night are a higher quality product are more robust and TRL taken by this method may result in fewer rejections. Two industry members noted they have advised fishers using cages to place these on the seafloor (not on sand to avoid sea-lice) and in areas of higher flow to minimise the effect of high temperatures and reduce rejection rates.
- The CSIRO observer noted the November 2015 pre-season survey provided the highest recruitment index recorded, although it was patchy with some sites low (for example 1+ TRL in Buru and Mabuiag strata) and others high. In contrast to anecdotal reports from industry of sand incursions reducing reef habitat in some areas, the 2015 surveys did not detect a decline in reef habitat, and there has not been significant changes detected by the fishery-independent surveys since 1989. The CSIRO observer noted there is an internet website that provides up to date sea-surface temperature for the Torres Strait.
- The independent scientific member noted there was some research on the impact of mobile sediment on lobster abundance which may be of interest the TRLRAG.
- The QDAF member noted there was a recent change in the state government minister responsible for QLD fisheries, MP Leanne Donaldson. The east coast TRL fishery is performing at about the long term average, the fishery has caught ~46 t, approximately 10 t higher than the same time in 2015.
- The TSRA member noted community consultation has finished for the “Roadmap to 100 per cent ownership, available on the PZJA website¹. Feedback from community

¹ http://pzja.gov.au/notices-and-announcements/notices-and-announcements/draft-roadmap-to-100-ownership-of-torres-strait-fisheries/#.VwrQi_I96Uk

consultations will be posted on the PZJA website at a later date and no final date has been set for implementation.

The TRLRAG **agreed** to the following action items:

1. AFMA to advise TRLRAG members and observers when final arrangements for the PZJA meeting have been made.
2. AFMA to circulate the sea-surface water temperature website to the TRLRAG members and observers out-of-session.
3. AFMA to circulate the paper detailing the impact of mobile sediments and lobster abundance to TRLRAG members and observers out-of-session.

Agenda Item 3 – Harvest Strategy

The Chair introduced this agenda item by presenting information on the six key elements of harvest strategies: objectives, reference points, performance indicators, performance measures, control rules and meta-rules. Following the presentation the Chair played a video titled 'Fisheries Stock Assessment Modelling Video 11 - Fishing for the Future²', which focussed on the principles of a harvest strategy.

The TRLRAG noted the benefits of finalising a harvest strategy, including increased confidence for industry due to predictability of the management response to potential fishery indicators.

The TRLRAG noted the interim harvest control rule is defined by the following parameters:

- $B_{TARG} = 0.65$
- $B_{THRES} = 0.48$ of B_{1973}
- $B_{LIM} = 0.4$
- $F_{TARG} = 0.15$
- $F_{LIM} = F_{TARG}$

CSIRO gave a presentation on various potential parameter scenarios that could be used in the final harvest strategy. There was considerable discussion regarding the parameters that could be used and how they might interact with appropriate control rules. Based on recent performance of the fishery, RAG members generally wanted a harvest strategy that would maintain the abundance of TRL at current levels. Discussions about the level and appropriate controls rules around the threshold and limit reference were more protracted, with members trying to balance a high level of precaution with reasonable consideration of traditional and commercial activities in a stock that has shown variable recruitment.

The RAG noted and appreciated the comprehensive work by CSIRO in developing and testing the use of empirical harvest control rules for the fishery.

² <https://www.youtube.com/watch?v=emtEzavpaGI&list=PLxpX1ofovMYFVgZGf6WujnUFDDv-VasSx&index=11>

The TRLRAG **agreed** to the following reference points for the fishery:

- B_0 is the model-estimate of spawning stock biomass in 1973 (start of the fishery).
- B_{TARG} is the agreed proxy for B_{MEY} , $B_{TARG} = 0.65$.
- B_{THRES} is the agreed “threshold” biomass level below which more stringent rules for calculating the TAC apply, $B_{THRES} = 0.48$.
- B_{LIM} is agreed to be half of B_{TARG} , $B_{LIM} = 0.32$.
- If the limit reference point (B_{LIM}) is triggered two years out of the most recent three year period, then the fishery is closed.
- F_{TARG} is the model-estimated level of fishing mortality that keeps the stock around B_{TARG} , $F_{TARG} = 0.15$.

The RAG noted that both the target and limit reference points were more precautionary than the default Commonwealth Harvest Strategy biomass proxies, but were comfortable with this approach. Based on the harvest strategy evaluation carried out by CSIRO it appeared that the interim B_{lim} of B_{40} was potentially too precautionary, and would result in unnecessary closure of the fishery. A more appropriate B_{Lim} of 0.32 was agreed, with closure of the fishery only triggered if this occurred in two of the most recent three years, with an annual assessment following.

The RAG acknowledged that the final harvest strategy they were discussing was based on only a pre-season survey with a three year assessment cycle for budgetary reasons, but they left open the option for a more expensive but potentially more cost-effective harvest strategy that included mid-year surveys and annual assessments.

The TRLRAG **agreed** for CSIRO to present results accounting for the following recommendations:

- plots of catch of all sectors, spawning biomass/K, fishing mortality, risk properties, CPUE for TIB and TVH sectors;
- spawning biomass/K plot with the target and limit reference points as a line on the plot;
- catch plots on a reduced scale of the y-axis to better show the variability of catch; and
- test the harvest control rule with a season start date of 1 December and 1 January.

The TRLRAG **agreed** for:

4. AFMA to send industry members an educational DVD on understanding stock assessments and harvest strategies (FRDC Project 2010-306).

One industry member questioned if a 12 month free-dive and lamp fishing season would pose greater risk to the stock under a 3-year stock assessment cycle.

CSIRO noted that a paper was presented at TRLRAG14 on the likely impacts of removing the temporal ban for free-dive and lamp fishing. The TRLRAG agreed removing the ban does not pose a significant risk to the sustainability of the fishery.

The TRLRAG **recommended** the following workplan:

Date	Recommendations
July/August	Meeting to agree on final parameters for the HCR.
December	Meeting early December to agree to the 2017 recommended biological catch and total allowable catch.

The TRLWG **agreed** to the following actions for the workplan:

5. AFMA to present a draft harvest strategy paper at the July/August TRLRAG meeting.
6. CSIRO to include as an appendix to the paper the details of testing decisions, including options that are removed at the July/August TRLRAG meeting.
7. CSIRO to present written report on the justification of the relative weighting of data under the harvest control rule at the July/August TRLRAG meeting.