

**Meeting Papers
for
16th MEETING OF THE PZJA
TORRES STRAIT
HAND COLLECTABLES WORKING
GROUP**

21 February 2020

8:30 am – 5:00 pm

TSRA Boardroom, Thursday Island

16th MEETING OF THE HAND COLLECTABLES WORKING GROUP

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TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
PRELIMINARIES Welcome and apologies	Agenda Item 1.1 For NOTING

RECOMMENDATIONS

1. That the Working Group **NOTE**:
 - a. an acknowledgement of Traditional Owners;
 - b. the Chair's welcome address;
 - c. apologies received from members unable to attend.

2. As of 7 February 2020 apologies were received from:
 - a. Stephen Purcell, Scientific member; and
 - b. Danielle Stewart, QDAF member.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
PRELIMINARIES Adoption of agenda	Agenda Item 1.2 For DECISION

RECOMMENDATION

1. That the Working Group consider and **ADOPT** the draft agenda – version 2.

BACKGROUND

2. A first draft annotated agenda was circulated to members and observers on 14 January 2020.
3. No changes or comments on the draft agenda were received.
4. AFMA made slight changes to the order of agenda items in the revised version 2 which was circulated with meeting papers on 7 February 2020.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
PRELIMINARIES Declarations of interest	Agenda Item 1.3 For DECISION

RECOMMENDATIONS

1. That the Working Group members:
 - a. **DECLARE** all real or potential conflicts of interest in Torres Strait hand collectable fisheries at the commencement of the meeting (**Table 1**).
 - b. **DETERMINE** whether the member may or may not be present during discussion of or decisions made on the matter which is the subject of the conflict;
 - c. **ABIDE** by decisions of the Working Group regarding the management of conflicts of interest.
 - d. **NOTE** that the record of the meeting must record the fact of any disclosure, and the determination of the Working Group as to whether the member may or may not be present during discussion of or decisions made on the matter which is the subject of the conflict.

BACKGROUND

2. Consistent with the *Protected Zone Joint Authority (PZJA) Fisheries Management Paper No. 1* (FMP1), which guides the operation and administration of PZJA consultative forums, members are asked to declare any real or potential conflicts of interest.
3. Working Group members are asked to confirm the standing list of declared interests (**Table 1**) is accurate and provide an update to be tabled if it is not.
4. FMP1 recognises that members are appointed to provide input based on their knowledge and expertise and as a consequence, may face potential or direct conflicts of interest. Where a member has a material personal interest in a matter being considered, including a direct or indirect financial or economic interest; the interest could conflict with the proper performance of the member's duties. Of greater concern is the specific conflict created where a member is in a position to derive direct benefit from a recommendation if it is implemented.
5. When a member recognises that a real or potential conflict of interest exists, the conflict must be disclosed as soon as possible. Where this relates to an issue on the agenda of a meeting this can normally wait until that meeting, but where the conflict relates to decisions already made, members must be informed immediately. Conflicts of interest should be dealt with at the start of each meeting. If members become aware of a potential conflict of interest during the meeting, they must immediately disclose the conflict of interest.
6. Where it is determined that a direct conflict of interest exists, the forum may allow the member to continue to participate in the discussions relating to the matter but not in any decision making process. They may also determine that, having made their contribution to the discussions, the member should retire from the meeting for the remainder of discussions on that issue. Declarations of interest, and subsequent decisions by the forum, must be recorded accurately in the meeting minutes.

Table 1. HCWG member and observer Declarations of Interest from most recent meetings.

Note: only declarations of members present are shown.

Name	Position	Declaration of interest
Members		
Anne Clarke	Chair	Board member of the Wet Tropics Management Authority Previously contracted with Regional Development Australia Far North Queensland and Torres Strait No pecuniary interests or otherwise.
Tim Skewes	Scientific Member	CSIRO/Independent Consultant. Current co-investigator on TSSAC project 'measuring non-commercial fishing in the Torres Strait'. Current co-investigator on TSRA funded project 'Stock survey of Torres Strait Beche-de-mer species'. Previous principal scientist for Torres Strait Scientific Advisory Committee (TSSAC) project to develop a harvest strategy for the TSBDMF. Previous CSIRO researcher for TSSAC project investigating traditional take of finfish in Torres Strait.
Steve Purcell	Scientific Member	To be declared.
Michael Passi	Traditional Inhabitant Member Kemer Kemer Meriam	TIB licence holder
Tony Salam	Traditional Inhabitant Member Kaiwalagal	To be declared.
Patrick Bonner	Traditional Inhabitant Member Kulkagal	TIB licence holder; Chair of Mura Porumagal Fisheries Corporation
Frank Loban	Traditional Inhabitant Member Maluialgal	TIB licence holder; Traditional Inhabitant Member on TSSAC and Finfish Working Group.
Maluwap Nona	Traditional Inhabitant Member, Gudumalulgal	TIB licence holder; Chairperson of Malu Lamar; Director of MDW Fisheries Association on Mer; Traditional Inhabitant Member on TSSAC.
Selina Stoute	AFMA Member	Employed by AFMA, no pecuniary interests or otherwise
Alison Runck	Torres Strait Regional Authority (TSRA) Member	Employed by TSRA, no pecuniary interests or otherwise.
Danielle Stewart	QDAF Member	Employed by Queensland Government, no pecuniary interests or otherwise.
Danait Ghebregabhier	Executive Officer, AFMA	To be declared.

Permanent Observers		
Yen Loban	TSRA Fisheries Portfolio Member	TIB licence holder; TSRA Board Member for Ngurupai
Ian Liviko	PNG National Fisheries Authority	To be declared.
Casual Observers		
Ian Butler	Australian Bureau of Agriculture and Resource Economics (ABARES)	To be declared.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
PRELIMINARIES Action items from previous meetings	Agenda Item 1.4 FOR NOTING

RECOMMENDATIONS

1. That the Working Group **NOTE**:
 - a. the progress against actions arising from previous meetings, including the 15th meeting of the Hand Collectable Working Group (HCWG15) held on 1-2 August 2019 (**Attachment 1.4a**).
 - b. the meeting record for HCWG15, which was finalised out of session on 16 September 2019 (**Attachment 1.4b**).

BACKGROUND

Actions arising

2. Updates are provided on the status of actions arising from the HCWG15 and previous meetings.

Meeting Record

3. The draft meeting record for HCWG15 was circulated out-of-session to members on 27 August 2019 for comment. Minor comments were received and the record was finalised out of session, emailed to Working Group members and posted on the PZJA website on 16 September 2019.

Status of actions arising from previous HCWG meetings.

#	Meeting	Action item	Responsibility	Status
1	HCWG 9 (20-21 June 2016)	AFMA to review the size limits set for the Torres Strait Beche-de-mer Fishery taking into consideration the size limits in place in Queensland and the Commonwealth Coral Sea Fishery.	AFMA	Complete. The PZJA agreed to the final Beche-de-mer Harvest Strategy at their meeting on 19 November 2019 which was formally implemented on 1 January 2020. Changes to minimum size limits will not be implemented until the remaking of <i>Fisheries Management Instrument No. 15</i> is complete.
2	HCWG 11 (27 June 2017)	Consideration on whether or not changes should be made to the current size limit for Prickly Redfish be undertaken during the Harvest Strategy Workshop noting relevant data will be presented.	AFMA	Complete. The PZJA agreed to the final Beche-de-mer Harvest Strategy at their meeting on 19 November 2019 which was formally implemented on 1 January 2020. Changes to minimum size limits will not be implemented until the remaking of <i>Fisheries Management Instrument No. 15</i> is complete.
3	Out of Session (July 2018)	The TSRA to assist TIB licence holders to develop a proposal to lift the hookah ban when fishing for white teatfish, to be put up to the PZJA for consideration.	TSRA	Ongoing (replaced with Action Item 6, below). The TSRA supported PZJA Traditional Inhabitant members to undertake cluster consultations in late 2019 which sought feedback from communities on the use of hookah to fish for white teatfish. An overview of the consultations outcomes will be discussed under Agenda Item 5 .
4	HCWG 14 (24 October 2018)	Malu Lamar, AFMA and TSRA to meet and discuss a way forward in terms of an MOU/combined strategy to assist in improved data collection and proposed management arrangements in support of a black teatfish opening.	Malu Lamar AFMA TSRA	Ongoing. AFMA suggests removing this item from the list of actions. While no formal MOU has been developed, a suite of parallel activities have since taken place including a full round of community visits focussed on Fish Receiver System education and awareness, and more recently PZJA traditional inhabitant member cluster consultations. AFMA also continues to work with individual operators to improve data collection. Having regard to clear HCWG advice at this meeting, AFMA will meet with communities to discuss black teatfish arrangements including reporting requirements.

#	Meeting	Action item	Responsibility	Status
5	HCWG 15 (1-2 August 2019)	Dr Eva Plaganyi to circulate information about upcoming scientific conferences that could serve as opportunities to showcase the Torres Strait BDM HS as a good news story.	Dr Eva Plaganyi	Complete. AFMA circulated information on upcoming scientific conferences on behalf of Dr Plaganyi via email on 5 August 2019.
6	HCWG 15 (1-2 August 2019)	TSRA and AFMA to develop a discussion paper outlining suggested management arrangements, based on HCWG discussions for pursuing the use of hookah to fish for white teatfish, for further consultation with communities and consideration by the HCWG and the PZJA.	TSRA AFMA	Ongoing (linked with Action Item 3, above). The TSRA supported PZJA Traditional Inhabitant members to undertake cluster consultations in late 2019 which sought feedback from communities on the use of hookah to fish for white teatfish. An overview of the consultations outcomes will be discussed under Agenda Item 2.1 . Noting key issues to be discussed under Agenda Item 6 , AFMA is recommending this action be discussed in more detail at the planned future management priorities workshop.
7	HCWG 15 (1-2 August 2019)	AFMA to arrange a half/full day future management priorities workshop in conjunction with the next Hand Collectables Working Group meeting.	AFMA	Ongoing. AFMA was unable to arrange the workshop in conjunction with HCWG16 as the focus of this meeting is to seek firm advice on black teatfish for a 2020 opening. AFMA is still committed to arranging a half day workshop to discuss future management priorities for Torres Strait Hand Collectable Fisheries. A time and date for the workshop is to be discussed under Agenda Item 10 .
8	HCWG 15 (1-2 August 2019)	AFMA to populate the Hand Collectable Fisheries Five Year Research Plan based on HCWG discussions and circulate back to HCWG members out of session for comment before submitting to the TSSAC for their consideration.	AFMA	Complete. AFMA circulated a revised Five Year Research Plan to Working Group members' out-of-session for comment on 16 September 2019. A summary of all comments provided by members out of session was then circulated to members via email on 9 October 2019. The updated Research Plan with incorporated member comments was considered by the TSSAC at their teleconference meeting on 25 November 2019. An update on the TSSAC outcomes will be provided under Agenda Item 7 .

#	Meeting	Action item	Responsibility	Status
9	HCWG 15 (1-2 August 2019)	AFMA to investigate the possibility of a HCWG industry member accompanying AFMA staff to the next Queensland Sea Cucumber Fishery Working Group meeting.	AFMA	Complete. There has been one Queensland Sea Cucumber Fishery Working Group meeting held since HCWG15 however PZJA Traditional Inhabitants were not permitted to attend. AFMA will continue to liaise with Fisheries Queensland about future Sea Cucumber Fishery Working Group meetings and possible HCWG Traditional Inhabitant member attendance.



Australian Government

Australian Fisheries Management Authority

15th Meeting of the Torres Strait Hand Collectables Working Group

1-2 August 2019, Thursday Island

Meeting Record

Note all meeting papers and minutes
are available on the PZJA webpage:

www.pzja.gov.au

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1 Preliminaries

1.1 Acknowledgement of Traditional Owners, welcome and apologies

1. Rocky Stephen opened the meeting in prayer at 9:00 am.
2. The Chair welcomed attendees to the 15th meeting of the Torres Strait Hand Collectables Working Group (HCWG 15) at the Torres Strait Regional Authority (TSRA) Board Room on Thursday Island. The Chair acknowledged the Traditional Owners of the land on which the meeting was held and paid respect to Elders past, present and future.
3. The Chair further acknowledged the role of the HCWG under the PZJA Fisheries Management Paper 1 and reminded members of working group of their responsibilities and respectful nature in which to abide by during the two days of meeting.
4. Attendees at the Working Group are detailed in Table 1 below.

Table 1. List of attendees at the HCWG15.

Members	
Anne Clarke	Chair
Tim Skewes	Scientific member
Michael Passi	Traditional Inhabitant member, Kemer Kemer Meriam
Maluwap Nona	Traditional Inhabitant member, Gudumalulgal
Frank Loban	Traditional Inhabitant member, Maluialgal
Steve Bolton	Australian Fisheries Management Authority (AFMA) member
Allison Runck	Torres Strait Regional Authority (TSRA) member
Georgia Langdon	HCWG Executive Officer, AFMA
Permanent Observers	
Yen Loban	TSRA Board Member for Muralag and Ngurupai TSRA Portfolio Member for Fisheries
Casual Observers	
Simon Naawi ¹	Traditional Inhabitant fisher – Masig (Yorke) Island
Rocky Stephen	Traditional Inhabitant fisher – Ugar (Stephen) Island
Eva Plaganyi	Commonwealth Scientific and Industrial Research Organisation (CSIRO)
Nicole Murphy	CSIRO
Elizabeth McCrudden	TSRA

¹ Mr Naawi only attended on day 2 of the meeting (Friday 2 August)

5. Apologies received are detailed in the Table 2 below.

Table 2. List of apologies for HCWG15.

Apologies	
Patrick Bonner	Traditional Inhabitant member, Kulkalgal
Tony Salam	Traditional inhabitant member, Kaiwalagal
Ian Liviko	PNG National Fisheries Authority (NFA) Invited Participant
Danielle Stewart	Queensland Department of Agriculture and Fisheries (QDAF) member
John Kris	Representative of Malu Lamar RNTBC

1.2 Adoption of agenda

6. The Working Group noted that three additional agenda items were suggested for inclusion on the agenda ahead of the meeting as per draft agenda version two.
7. The Working Group adopted the draft agenda (Attachment A).

1.3 Declarations of interest

8. As outlined in PZJA Fisheries Management Paper No. 1, all members of the Working Group must declare all real or potential conflicts of interest in Torres Strait hand collectable fisheries at the commencement of the meeting (see Table 3 below).

Table 3. Declared interests from each attendee.

Name	Position	Declaration of interest
Anne Clarke	Chair	Board member of the Wet Tropics Management Authority Previously contracted with Regional Development Australia Far North Queensland and Torres Strait No pecuniary interests or otherwise.
Tim Skewes	Scientific Member	CSIRO/Independent Consultant. Previous principal scientist for Torres Strait Scientific Advisory Committee (TSSAC) project to develop a harvest strategy for the TSBDMF. Previous CSIRO researcher for TSSAC project investigating traditional take of finfish in Torres Strait.
Michael Passi	Traditional Inhabitant Member, Kemer Kemer Meriam	TIB licence holder
Maluwap Nona	Traditional Inhabitant Member, Gudumalulgal	TIB licence holder, Chairperson of Malu Lamar, Traditional Inhabitant member on TSSAC
Frank Loban	Traditional Inhabitant Member, Maluialgal	TIB licence holder; Traditional Inhabitant Member on TSSAC and Finfish Working Group.

Name	Position	Declaration of interest
Steve Bolton	AFMA Member	Employed by AFMA, no pecuniary interests or otherwise
Allison Runck	TSRA Member	Employed by TSRA, no pecuniary interests or otherwise
Georgia Langdon	Executive Officer HCWG (AFMA)	Employed by AFMA, no pecuniary interests or otherwise
Yen Loban	Permanent Observer	TIB licence holder; TSRA Board Member for Muralag and Ngurupai; TSRA Portfolio Member for Fisheries
Simon Naawi	Casual Observer	Traditional Inhabitant fisher – Masig (Yorke) Island
Rocky Stephen	Casual Observer	Traditional Inhabitant fisher – Ugar (Stephen) Island; Chair of Kos and Abob Fisheries Association; Brother Bear Fisheries; Torres Strait Regional Island Councilor of Ugar; Traditional inhabitant member on Finfish Resource Assessment Group (FRAG), Finfish Working Group (FWG) and TSSAC; currently undertaking a beche-de-mer re-seeding research project with CSIRO on Ugar.
Eva Plaganyi	Casual Observer	Employed by CSIRO. Current Principle Investigator for TSSAC project 'Torres Strait TRL survey stock assessment and harvest strategy'. Previous Principle Investigator for TSSAC project 'Developing a harvest strategy for the TSBDMF'.
Nicole Murphy	Casual Observer	Employed by CSIRO. Current Principle Investigator on TSRA funded project 'Stock survey of Torres Strait Beche-de-mer species'.
Elizabeth McCrudden	Casual Observer	Employed by TSRA, no pecuniary interests or otherwise

1.4 Action items from HCWG14 and previous meetings

9. The Working Group acknowledged that only minor comments were received on the draft meeting record which was finalised out of session and circulated to members on 21 December 2018.
10. The Working Group noted the report provided by the Executive Officer advising of the status of actions arising from previous HCWG meetings (Table 5).

1.5 Out of session correspondence

11. The Working Group noted the correspondence circulated out of session since HCWG14 held on 24 October 2018.

2 Working Group Updates

2.1 Industry and Scientific member update

12. The Working Group noted updates provided by Traditional Inhabitant industry members and observers on the recent performance and strategic issues relating to hand collectable fisheries, including economic trends, affecting the management and development of these fisheries.
13. Traditional Inhabitant industry members and observers made the following comments in relation to hand collectable fisheries:
 - a. While there are limited beche-de-mer resources in the near western region, and therefore very few active BDM fishers, TIB fishers of Maluialgal are always looking for opportunities in Torres Strait fisheries and continue to work closely with Kulkalgal fishers.
 - b. Similarly, there are limited BDM resources in the top western region, however TIB fishers from Gudumalulgal nation are engaging with Kemer Kemer Meriam people.
 - c. With limited fishers operating in the industry, fishers are struggling to fill TACs in order to fulfil export markets. The 7m boat length restriction must be reviewed in order to facilitate TIB fishers fully utilising the BDM TACs. Further, the limitation is becoming a risk for divers who are needing to travel greater distances to reach fishing grounds.
14. With regards to catch rates and on-water observations, industry members and observers noted the following points:
 - a. Beche-de-mer stocks in Kemer Kemer Meriam waters are reportedly looking healthier with many observations of white teatfish, black teatfish and larger sized prickly redfish on the reefs. There is a new BDM buyer operating from Mer purchasing BDM product which is encouraging to see investment in the community. A number of TIB fishers on Mer are working closely with the new buyer to ensure small animals are not harvested. Most of the BDM purchased are sent to Sydney as gutted and salted product. Fishers noted that salted product typically lasts around a week but will keep longer in a cool room. Freight costs are expensive. Product is typically freighted directly to Cairns via Seaswift and then trucked further south. Freight on board flights out of Mer is limited due to weight restrictions.
 - b. There has been a significant period of rough weather, with winds up to 30 knots resulting in fishers out on Mer only working approximately six months of the past year. This is notably different to earlier years but has allowed dive crews some rest time.
 - c. Sizes of prickly redfish are notably larger, with anecdotes that usually around 30-40 pieces (of BDM) are required to make 40kg of product however now the larger sized sea cucumbers only require around 20 pieces to achieve the same weight of product.
 - d. Fishers at Ugar have mostly been focusing on finfish species with very little activity in the BDM fishery. This is largely due to the rough weather, however the mackerel have been continuing to bite. When Ugar fishers are working BDM, the product is typically salted.
15. The scientific member noted the following updates in relation to other BDM fisheries around Australia:
 - a. The Western Australia (WA) BDM fishery has recently been undergoing the certification process under the Marine Stewardship Council (MSC) which is expected to be complete this year. This certification process was very challenging to achieve as it was difficult to demonstrate the sustainable management arrangements for sandfish and deepwater redfish through the efficacy of the WA BDM harvest Strategy. It was the commitment to

undertaking surveys every five years and an annual weight of evidence assessment that enabled the final MSC certification.

- b. Some countries (e.g. USA and European countries) hold MSC certification in high regard which can generate large differences in price, however achieving MSC certification is very expensive and the trade-off for the value received versus the cost of certification must be considered. MSC is not the only seafood certification body, however it is notably the most recognised. Should black teatfish and white teatfish CITES Appendix II listings be agreed to, the WA BDM MSC certification will put the WA BDM Fishery in good stead.
- c. The Queensland East Coast BDM Fishery is also considering pursuing MSC certification for some aspects of the BDM Fishery, including the black teatfish fishery. A survey on black teatfish on the EC was undertaken in recent years and did show signs of recovery, satisfying the Great Barrier Reef Marine Park Authority (GBRMPA) stipulation that the biomass of black teatfish had to have recovered to greater than 70% unfished biomass with a high level of certainty in order for the fishery to be reopened.
- d. White teatfish remains the other key priority for the EC BDM Fishery. Although only relatively highly targeted, there is very little information on white teatfish population status.. A study with James Cook University (JCU) is looking at remote drop camera surveys which will be interesting to compare with the upcoming CSIRO Torres Strait BDM survey.

2.2 Government updates

2.2.1 AFMA update

16. The Working Group noted an updated provided by the AFMA member regarding management issues relevant to Torres Strait hand collectable fisheries, in particular:

- a. The implications for listing commercially fished beche-de-mer species on Appendix II of CITES;
 - i. If listed, species may still be traded internationally provided the trade, or a specified level of trade, has been determined to be non-detrimental to the survival of the species in the wild.
 - ii. The Department of Environment and Energy (DoEE) is responsible for assessing the sustainability of international trade in Australian species listed on Appendix II and undertakes this assessment based on the information provided to it by the exporting proponent.
 - iii. In the case of government managed fisheries, the species-specific information is provided by the relevant managing agency (AFMA), usually within the information provided by the agency for the assessment of sustainability as an approved Wildlife Trade Operation (WTO) under the Environment Protection and Biodiversity Conservation Act 1999.
 - iv. Where an approve Wildlife Trade Operation (WTO) is in already in place for the relevant fishery, the DoEE recommends that arrangements to renew the WTO, or provide an addition to the WTO could be considered.
 - v. Alternatively, information on the sustainability of the species' harvest for international trade throughout its Australian range could be provided for assessment.

17. The Working Group acknowledged that the lack of data on the two proposed species was worldwide and while it does not prohibit fishing for the species in the Torres Strait, it may impose stricter conditions on the trade of the species.
18. One of the implications for a successful Appendix II listing will result in setting a higher bar for their management that will take some additional resources and investment. The implementation of the BDM harvest strategy, mandatory catch reporting and an updated stock status survey are all tools that contribute to the exemplary management of beche-de-mer stocks throughout the world.
19. The Working Group also noted a range of other AFMA updates relating to:
 - a. the outcomes of the Australian National Audit Office audit on the coordination arrangements of Australian Government agencies operating in the Torres Strait;
 - b. the latest Fishery Status Reports from the Australian Bureau of Agriculture and Resource Economics (ABARES);
 - c. updates on the progression of legislative amendments to the *Torres Strait Fisheries Act 1984* and *Torres Strait Fisheries Regulations 1985*; and
 - d. the new Assistant Minister for Agriculture and Water Resources;
20. The Gudumalulgal traditional inhabitant member, who is also the Chairperson for Malu Lamar reiterated that any changes to legislative amendments must be consulted on with Malu Lamar in order to encompass Native Title rights post the Akiba decision. He added that a submission was provided to the PZJA in 2014 in relation to this however no response has yet been received from the PZJA.
21. The TSRA member suggested that some proposed amendments already have policy approval, such as improving the ability for catch reporting in the fishery, and it is important these changes are progressed, with a separate process established to address Native Title rights issues and the pursuit of PZJA membership by Malu Lamar.

2.2.2 TSRA Update

22. The Working Group noted an update provided by the TSRA member regarding TSRA Fisheries Program activities:
 - a. A part of the program to support PZJA traditional inhabitant members in their roles, the TSRA is working to arrange cluster visits in October 2019 to enable traditional inhabitant members provide updates to communities and other industry members, and seek feedback on the latest developments in their respective Working Groups and Resource Assessment Groups (RAGs).
 - b. The TSRA is progressing a project aimed at increasing the value of Torres Strait seafood products through improvements in the supply chain and branding. A number of the project outputs were presented on at the 2018 Fisheries Summit, however an additional output, being the development of an Exporter's Handbook is close to completion. The handbook is intended to provide information on what happens to seafood product once it is sold to a buyer, what certifications are needed if you are looking to export, outlines e-commerce opportunities and provides a platform for connecting harvesters with buyers.
 - c. The Fisheries Regional Ownership Framework (FROF) project is progressing, with the planned establishment of a company limited by guarantee set up to transition all commercial fisheries assets to the 'Entity' for commercial management. It is expected that such assets (which includes approximately \$1.7 million dollars in finfish sunset lease money) will be transferred over a period of 12-18 months. TSRA is currently undertaking

a full round of consultation and community visits with members of the FROF Steering Committee which includes community representatives Frank Loban and Kenny Bedford, representatives from Malu Lamar and Gur A Baradharaw Kod Torres Strait Sea and Land Council (GBK), as well as TSRA Board Members Horace Baira and Yen Loban, and the TSRA Chair.

- d. The Steering Committee is consulting on a proposal for the company structure, company membership with draft objectives and purpose statement. It is intended that the outcomes of the consultation will be presented to the TSRA Board in September, where the fisheries program will seek endorsement for the next steps of the project. A Fisheries Summit meeting is expected to be convened in early 2020 to provide a more complete update on the Entity to stakeholders.

23. The Working Group noted that the Torres Strait seafood branding project will be progressed to a stage that can be used as a resource for the Entity to utilise, however it is not an asset per se that will be transferred.

24. Further, small business operators who are seeking funding support from the TSRA should continue to do so via the range of support packages available through the TSRA Economic Development Program, separate to the Entity.

2.2.3 QDAF Update

25. While the QDAF member was not present during the meeting, the Executive Officer to the Working Group provided the following brief updates regarding Fisheries Queensland:

- a. Fisheries Queensland is undergoing a significant regulatory reform, with a number of proposed amendments to their Fisheries Regulations being considered.
- b. While a considerable number of amendments relate to both the finfish and tropical rock lobster fisheries in the Torres Strait, the key amendment relevant to the beche-de-mer fishery is the proposed prohibition of the recreational take of white teatfish.
- c. Consultation on the proposed amendments closed on 19 July 2019. AFMA is providing a written submission to QDAF regarding the reform.
- d. The East Coast black teatfish fishery opened on 1 July 2019. The opening was for a 30 tonne Total Allowable Catch allocated equally across the 18 licence holders, and managed under the current rotational harvest arrangements.

26. AFMA will continue to liaise with QDAF regarding further updates on the East Coast black teatfish opening.

2.3 Native Title update

27. The Gudumalulgal traditional inhabitant member, who is also the Chairperson of the Malu Lamar (Torres Strait Islanders) Corporation RNTBC provided an update to the Working Group on behalf of Malu Lamar. The Working Group noted the following key points:

- a. Malu Lamar is working closely with TSRA to support the development and consultation of the Entity.
- b. A draft Regional Sea Use Agreement (under the *Native Title Act 1993*) is being proposed to detail how sea country and its resources will be utilised in to the future. The Agreement is to ensure that the interests of Traditional Owners are protected, and that the owners of the resources have a say in how the resources are utilised. Malu Lamar will be consulting

with all relevant government agencies including AFMA, QDAF and the Australian Maritime Safety Authority (AMSA).

28. The Chairperson further added that the recent Northern Territory Timber Creek decision handed down by the High Court was a significant milestone for Native Title rights. The decision ensured a pay-out for economic and cultural loss to Traditional Owners over the development of a bridge.
29. He also reminded the Working Group of the importance of utilising the protocols outlines in the Nakata report for undertaking research in the Torres Strait.

2.4 PNG National Fisheries Authority update

30. In the absence of a PNG NFA representative, the AFMA member provided a brief update on behalf of PNG NFA based on recent fisheries bilateral events and reports sought through local PNG media:
 - a. Selected marine provinces are closed to beche-de-mer fishing until all stock assessment surveys are submitted for analysis and a final decision on opening the fishery is made by the PNG NFA Board;
 - b. 2018 exports of beche-de-mer from PNG had an estimated value of around K100 million (~\$42 million AUD).
 - c. A Fisheries Committee Bilateral meeting was held on 4 March 2019, Thursday Island between Australia and Papua New Guinea. The Fisheries Committee noted that:
 - i. AFMA requested that complimentary management strategies be developed by Parties for shared beche-de-mer stocks, specifically sandfish;
 - ii. PNG-NFA advice that the South-Fly beche-de-mer fishery remains closed until further notice and that PNG-NFA regard stocks in the South-Fly region as overfished. As a result, PNG-NFA are taking a precautionary approach in assessing possible future TACs. PNG-NFA are committed to undertaking research to determine the status of stocks prior to any future openings in the region. Stock surveys are planned for Warrior Reef and fishing areas around Parama Island. PNG-NFA welcomed the opportunity to collaborate and share the results of any beche-de-mer surveys conducted by each Party.
 - iii. Challenges faced by PNG-NFA in managing beche-de-mer fishing activities around Treaty Villages with Indonesian buyers providing high market demand through illegal trade. PNG-NFA advised that centralised management approaches are less effective when the fishery operates at the village level and driven by external high value markets.
31. The Working Group queried why the level of research collaboration between Australia and Papua New Guinea has been declining in recent years, despite repeated commitments made at Fisheries Bilaterals, and noted that the relationships between Australia and PNG need to be continually strengthened.
32. A traditional inhabitant member raised concerns about poaching of beche-de-mer, stating that a Malaysian buyer is buying PNG product and exporting directly to Hong Kong. The scientific member added that the level of governance in the western provinces is poor which may also be contributing to increased poaching.

3 Harvest Strategy

3.1 Outcomes of the draft Beche-de-mer Harvest Strategy consultation

Noting the outcomes of public consultation on the draft Beche-de-mer Harvest Strategy, the Working Group recommends the PZJA adopts the draft Harvest Strategy as final.

33. AFMA provided an overview of the eight week public consultation process that was undertaken for the draft Beche-de-mer Harvest Strategy (BDM HS), noting in particular:
- The period for public comment was open for eight weeks, following agreement from the PZJA to release the draft BDM HS for consultation.
 - To facilitate consultation, AFMA undertook a round of visits to communities across the Torres Strait and Northern Peninsula Area;
 - A package of information inviting comment on the draft BDM HS was mailed out to licence holders, Native Title Bodies, the co-chairs of the Australia-PNG Bilateral Traditional Inhabitant Meeting (TIM), the Department of Environment and Energy (DoEE), the Department of Agriculture and Water Resources (DAWR) and the PNG National Fisheries Authority. All information was also made available on the PZJA website.
 - Submissions on the harvest strategy were able to be made in writing, over the phone, or in person at community meetings.
34. The Working Group noted that most communities expressed general support for the BDM HS. Badu was the only community that expressed strong concerns about the HS, suggesting that the current management arrangements in the BDM Fishery (e.g. the 7m boat length restriction and the prohibition on hookah) do not support the growth of the fishery in the way that the draft BDM HS intends.
35. Only one written submission of support was received in relation to the draft BDM HS, from Councillor Getano Lui in his capacity as the Australian co-chair of the Traditional Inhabitants Meeting under the *Torres Strait Treaty*.
36. The AFMA member noted that while the comments made during the consultation period about the draft BDM HS are important in their own right, they provide no indication that the draft BDM HS should be further altered or changed in any substantive way from the framework that was agreed to in draft. The draft document may only require some general editing and proof reading before being submitted to the PZJA for its consideration.
37. The Maluialgal traditional inhabitant member suggested that should the BDM HS be approved by the PZJA, it should be shared as a good news story and be accompanied with a complete communication package to promote such a key milestone for Torres Strait fisheries.
38. Dr Eva Plaganyi, principle investigator on the BDM HS project praised all those HCWG members and additional stakeholders involved for their commitment developing the HS document over the years. She added that she has received a lot of interest in the HS from the international scientific community and agreed it would be extremely valuable to have a Torres Strait islander present on the BDM HS next year at the World Fisheries Congress in Adelaide, or other international science conferences.

ACTION ITEM #1: Dr Eva Plaganyi to circulate information about upcoming scientific conferences that could serve as opportunities to showcase the Torres Strait BDM HS as a good news story.

39. Working Group members and observers expressed unanimous support for the BDM HS and formally recommended that the PZJA adopts the draft BDM HS as final.

3.2 Implementation of the Beche-de-mer Harvest Strategy

The Working Group recommends that the PZJA agrees to remake *Fisheries Management Instrument No. 15* to give effect to the management of the BDM fishery under the Harvest Strategy.

40. In consideration of the comments and submissions received on the draft BDM HS, the HS will be considered by the PZJA for approval and implementation by the 2020 season. AFMA provided an overview of the necessary changes required to effectively implement the BDM HS, including:
- a. changes to existing Total Allowable Catch limits for some individual species, and species baskets and the addition of new TACs for individual species and species baskets;
 - b. changes to the way in which TACs are set each fishing season as guided by the decision rules within the BDM HS;
 - c. creating a new mechanism for enforcing TAC limits and requiring fishing to cease once a TAC has been reached;
 - d. changes to minimum size limits; and
 - e. agreed methodology for applying conversion ratios to reported catches.
41. The Working Group noted that in order to give effect to these changes, AFMA is proposing to remake *Fisheries Management Instrument No. 15* (FMI No. 15). Remaking FMI 15 will:
- a. Provide for the early closure of individual species or species basket before the end of the fishing season (31 December) to ensure the commercial catch of the species or species basket does not exceed the Total Allowable Catch limit.
 - b. Regulate the season open and closure dates for a species presently closed to fishing (e.g. black teatfish)
 - c. Give effect to the updated minimum size limits.
 - d. Align with new legislative drafting standards.
 - e. Remove any regulation in relation to Traditional Fishing to reflect that the PZJA's jurisdiction does not extend to traditional fishing.
42. The Working Group noted that at present, TACs for the BDM fishery are prescribed within licence conditions and in order to regulate fishers to cease fishing, licence conditions must be varied (and the TAC varied to zero), and requires formal Native Title Notification. The lengthy process is not considered best practice fisheries administration. The proposed mechanism to cease fishing in the new Instrument is the same mechanism applied to the TRL Fishery. AFMA intends to remake FMI No. 15 in time for the start of the 2020 BDM fishing season.
43. The TSRA member encouraged the Working Group to think about the potential implications of the first step in the catch-based decision rule that stipulates 'no data, no fishing' when providing advice to the PZJA on the next season's TAC. The Working Group discussed that the definition of 'reliable data' will a subjective assessment of the Working Group at that time. The HCWG will need to consider all available information when applying this rule to species ahead of a new fishing season.

44. Dr Eva Plaganyi noted that should the BDM Fishery commit to more regular surveys longer term and the provision of good quality data improves, a comparison between the two will likely detect if there is a problem with unreported data, or the data is 'unreliable'.
45. Further, AFMA reminded the Working Group that good quality, timely fisheries data will support the harvest strategy and instances of late data submission will have significant implications on the ability for the PZJA to agree on TACs. As an example, an updated final catch figure for prickly redfish from the 2018 was only calculated close to six months after the season had finished due to a very late submission of data up to 12 months after the actual fishing event.
46. In consideration of the potential for similar late catch reports and the impact on harvest strategy implementation, the Working Group discussed options for providing advice on TACs under scenarios where catch reports may be incomplete or there is a significant delay in collation of final catch reports.
47. Dr Eva Plaganyi suggested setting an "interim TAC" similar to the TRL Fishery, where the interim TAC is set at a conservative level (e.g. 80 per cent) that would provide enough catch for fishers to go fishing with a low probability of the interim TAC being reached before the final TAC was determined. Then, pending compilation of final catch reports and advice from the Working Group, the final TAC may be adjusted accordingly under the guidance of the catch-based decision rule (i.e. any overcatch of the TAC up to 20% over is to be deducted from the TAC in the following season).
48. AFMA agreed with this suggestion but noted there may be an issue for species with very small TACs (e.g. deepwater redfish 5 tonnes) which in some extreme scenarios, could be fully caught early on in the season. Dr Plaganyi added that in consideration of the biology and life history of sea cucumbers, it would be reasonable to apply the harvest strategy and analysis of catch data (including any over catch in a particular year) more broadly over a three year period (rather than year to year) to ensure catches remained sustainable on average. As the timeliness of catch reporting continues to improve, the potential lag in catch data analysis will decrease.
49. Other suggestions made to address this issue included shortening the fishing season by one month to allow enough time to collate all the catch data, and implementing a TAC trigger to cease fishing while the data is reviewed.
50. Some members noted that it would not be an ideal situation for industry if the final TAC advice was lower than originally set partway through a season. Others acknowledged that a situation of potential overcatch and application of the catch-based decision rule will not be required until the second year of implementation, by which it is hoped the timeliness of catch reporting will have significantly improved, resulting in a much more accurate compilation of catch records at the end of a season. If an "interim TAC" was conservative enough (e.g. 50 per cent of the starting TAC), then it would be unlikely that the final TAC advice would decrease. It was also noted that should the scenario arise where TAC overcatch is realised well into the proceeding season or the ability to confidently understand harvests in the fishery in a timely manner is not possible, the risk to the fishery is likely to remain fairly low if considered across a three year average period.
51. No formal advice was formulated in relation to this issue, however the Working Group noted it will likely need to be revisited once the BDM HS is implemented.
52. Finally, the Working Group noted that for the HS to operate favourably for industry, and flow on effects for the global market (in terms of market supply), all operators need to be providing good, timely data to support a sustainable and stable fishery, and to avoid any future fishery closures.

3.3 Beche-de-mer Weight Conversion Ratios and Species ID Guide

Conversion Ratios

The Working Group recommends that the conversion ratios specified under the BDM Harvest Strategy, including the use of proxies where there are information gaps; be applied to monitor reported catches against TAC limits in the BDM Fishery, noting that conversion ratios may be updated over time as new information becomes available.

53. The Working Group discussed the role of conversion ratios in managing fisheries and noted the following key points:
 - a. TACs in the BDM Fishery are measured in wet weight gutted form.
 - b. Conversion ratios are used to convert processed weights of beche-de-mer (e.g. boiled and salted, or dried) back to a single standard unit of weight (wet weight gutted). This converted weight is then used to understand total catches in the fishery and to monitor reported catches against TACs.
 - c. It is important to have accurate conversion factor information so avoid potentially over or under-estimating total catches.
54. The Working Group noted that the key information gaps are for curryfish species. To address this, CSIRO and industry are undertaking research to fill these knowledge gaps through industry based sampling, coupled with in-field training and provision of equipment to selected fishers. With very little fishing effort occurring, no data has been collected to date however CSIRO are continuing to work closely with industry to collect this information.
55. The TSRA member questioned whether there was an increased risk of underestimating TACs when using proxy conversion ratios, given the variation among species' morphology. The Working Group noted that the actual values do not vary significantly much, but that it will be important to identify any critical gaps (i.e. curryfish) and acknowledge these as potentially high research priorities.
56. It was noted that many of the conversion ratios currently being used were developed through previously dedicated research projects supported by the TSSAC.
57. The Working Group acknowledged that in developing the draft BDM HS, conversion ratios for BDM species were already agreed to by HCWG, however AFMA was seeking advice from the Working Group on the application of the ratios, including the use of proxies where there are information gaps. The Working Group noted that conversion ratios are transparent and agreed to in all other fisheries, and that AFMA is seeking the same standard for the BDM fishery.
58. The Working Group agreed that the conversion ratios as they are currently outlined in the draft BDM HS, and the way in which they are applied are sufficient to support the monitoring of reported catches against TACs, noting that they are subject to change as more information becomes available.

Beche-de-mer Species ID Guide

59. CSIRO provided a brief update on the progress made to updating the Beche-de-mer species Identification Guide. The Working Group noted that the new version will now include:
 - a. Local/traditional species names;
 - b. Updated minimum size limits and a ruler along the bottom page;
 - c. Total Allowable Catch limits;

- d. Agreed conversion ratios;
 - e. Biological, morphological and life history information;
 - f. Habitat and distribution maps; and
 - g. Species spawning seasons.
60. Some Working Group members requested that information about the ecological role of sea cucumbers should also be included.
61. To support the implementation of the updated size limits, AFMA is developing some size limit rulers to assist fishers in complying with the new limits.

4 Management

4.1 Catch Data Summary

62. AFMA provided an update on the catch and effort reports for hand collection fisheries for the 2019 season to date and an update on the 2018 season since HCWG14. The Working Group noted the following key points:
- a. A total of 4.1 tonnes of beche-de-mer had been reported across seven different species via 30 individual Catch Disposal Records (CDRs) as of 4 July 2019. Data reported during this period was only as recent as 31 May 2019 indicating that no catches of beche-de-mer have been reported in greater than two months. Due to AFMA's data confidentiality rules, a breakdown of species was not able to be provided.
 - b. Compared with the 2018 season up until the same date (31 May 2018), reported catch was 14.1 tonnes, and by the end of the season, beche-de-mer reported as landed before 31 May 2018 was in fact 22.5 tonnes, indicating a significant lag in reporting.
 - c. The updated total catch figure for all species in the 2018 season is 64.3 tonnes, which is an additional 30.1 tonnes reported since HCWG14. Most notably, prickly redfish catches increased from 8.2 tonnes to a final season total of 14.7 tonnes. The Working Group noted that the updated prickly redfish figure was only realised in recent weeks (7 months after the season had closed) as an additional 2 tonnes were submitted to AFMA.
 - d. An additional 110 CDRs were submitted after HCWG14, making a total of 224 CDRs with reported beche-de-mer catch in 2018.
 - e. Since HCWG14 the proportion of CDRs submitted to AFMA with voluntary information regarding Area Fished, Number of Days Fished and Number of Fishers increased. Despite very few CDRs submitted in 2019 (so far), the proportion of CDRs with the same voluntary information reported has also continued to increase.
 - f. Timeliness of reporting did increase from 49% of CDRs being submitted to AFMA "on time" to 65% after HCWG14, though in 2019 this number has decreased back to only 49%. Timeliness of reporting remains a significant concern for AFMA, and the successful implementation of the BDM HS.
 - g. When considering the average number of days between the landing date of the product, and the date the CDR is received by AFMA, the return time is improving. Prior to HCWG14, the average CDR receipt time was 54 days, after HCWG14 this improved to 50 days, and in the 2019 season so far, the average receipt time is 30 days.

63. Noting these data, the Working Group were asked to comment and provide advice on the likely accuracy of the information in reflecting true catch and effort in the BDM fishery, particularly recognising the reports of bad weather and limited fishing activity in recent months.
64. Some industry members reported that because the TRL season has improved this year, more people are fishing for TRL, as opposed to BDM which is why reported catches are low.
65. Given the final catch reports for prickly redfish were so close to the TAC, the Kemer Kemer Meriam Traditional Inhabitant member questioned what would happen if that was this season. AFMA advised that under the harvest strategy, and using the *Fisheries Management Instrument*, AFMA would be likely to close the fishery.
66. The Working Group further noted that curryfish species (totalling 42.4 tonnes) did not exceed the 80 tonne basket, and under the harvest strategy would also not have exceeded the 60 tonne curryfish species TAC. An observer to the meeting added that curryfish harvests would in fact be higher if discarded product was included, however it is difficult to capture discards on CDRs (nor is it required to be reported). The Working Group acknowledged the importance of capturing discarded product on the CDRs where possible even if there is no specific field to write it. CSIRO noted that a ratio of discards can also be extrapolated up and applied more broadly across species.
67. The Working Group was reminded to consider the catch summary catch statistics when discussing a potential black teatfish opening.

4.2 Compliance in the Beche-de-mer Fishery

68. An AFMA compliance officer provided an overview of domestic compliance activities within Torres Strait Fisheries and the Working Group noted the following key points:
 - a. AFMA took over the Torres Strait Fisheries Domestic Compliance Program on 1 July 2019 from the Queensland Fishing and Boating Patrol.
 - b. To increase capacity in this area AFMA has since recruited a third team member to assist with the increase in work load.
 - c. Since taking carriage of domestic fisheries, the compliance program have:
 - i. Focused on educating and raising awareness among industry about the mandatory requirements of a TIB and fish receiver licence, with 18 stakeholder/community meetings held aimed at fostering voluntary compliance with licence conditions and fisheries management plans;
 - ii. With the support of Australian Border Force, the Royal Australian Navy, Queensland Water Policy and the TSRA Rangers, fisheries officers have conducted sixteen 'at sea' patrols with 47 boats inspected, fifteen ports/freight hubs visited and 21 fish receive premises inspected;
 - iii. Referred seven matters to the Commonwealth Director of Public Prosecutions (CDPP) for consideration – two cases were not proceeded, one case scheduled for hearing in August 2019 and four are currently under consideration by CDPP.
69. The Working Group noted that it is not a fisheries officer's role in deciding whether cases should be pursued through to prosecution. AFMA fisheries officers collect evidence and build a case to meet the evidentiary requirements for the AFMA Operational Management Committee to consider whether cases are progressed further to the CDPP.

70. In relation to the BDM Fishery in particular, AFMA continue to monitor catch movements through the Torres Strait, intercepting consignments moving on freight carriers and fixed wing aircraft which is identifying catch taken by unlicensed fishers, or catch not landed to a licenced fish receiver. Timeliness of catch reporting and “stockpiling” of product is also of concern.
71. The Compliance officer noted that after the early closure of the TRL season in late 2018, increased fishing activity on BDM was occurring in places like Tudu, no incursions or breaches of licence conditions were detected. Further, there have been no incursions or reports of PNG fishers coming across in to Australian waters in the BDM Fishery on Warrior Reef.
72. The Working Group noted that the CRIMFISH hotline which is widely promoted throughout the Torres Strait is a very successful way for AFMA to receive reports and intelligence on any suspected illegal, unregulated or unreported fishing activities.

4.3 Black teatfish

That the Working Group recommends the PZJA consider a trial opening of the black teatfish fishery on 1 February 2020, contingent on the implementation of the beche-de-mer Harvest Strategy, and remaking of the *Fisheries Management Instrument No. 15* (FMI No. 15); noting that HCWG Traditional Inhabitant members will undertake community consultation regarding constraining access of TIB licence holders to black teatfish resources through customary protocols and traditional lore, and collecting high resolution catch and effort data to complement the BDM stock survey and provide a CPUE baseline.

73. AFMA reminded the Working Group that the black teatfish fishery was not reopened after the previous 2014 and 2015 trial as the trial opening performance indicators of timely and accurate data were not met. As catch data was not provided to AFMA in a timely manner, AFMA did not have accurate information and the TACs in both instances were exceeded.
74. The Working Group noted that it is unlikely the PZJA would support opening the black teatfish fishery unless the appropriate management controls were in place.
75. In order to re-open and effectively manage and monitor a black teatfish opening, it is AFMA's preference that an opening occur in 2020 following the approval and implementation of the BDM Harvest Strategy, and the *Fisheries Management Instrument* are in place. It is intended that both of these tools are in place by the start of the 2020 fishing season.
76. The Working Group noted that opening the fishery 2020 would allow two complete years of operation under the Fish Receiver System to better demonstrate improved timeliness of catch reporting.
77. In consideration of a pending beche-de-mer stock survey in early 2020, the scientific member highlighted that an opening of black teatfish may provide the potential to collect additional information to support the survey, however it would require high resolution catch and effort data than what's currently captured within the CDRs to be of most use.
78. Given the potential for over-capacity and catches to exceed the TAC under a 'goldrush mentality', coupled with possible increased discarding and wastage through poor handling of a high value species, the scientific member suggested structuring the opening of the black teatfish fishery in the context of an experimental fishing trial at least in the first year or two. Such an opening would therefore be more restricted, and serve as an information gathering exercise to support scientific baseline data. The TAC would remain at 15 tonnes, however participation by fishers would be selected and dedicated based on their willingness to provide high resolution spatial, catch and

effort data. The provision of such high resolution data would strengthen the utility of the broader stock survey on a reef level.

79. Dr Plaganyi added that the value of the experimental trial suggestion is aligned with the harvest strategy which puts greater emphasis on the utilisation of fisher data. While fisher reported data is improving baseline CPUE index of abundance is lacking for most species, particularly black teatfish which is likely to only be open for so few days. While having limited participation would assert more control over the collection of high resolution data, it would still be possible with greater access to the fishery, provided that the same data was being collected.
80. The Working Group noted that any discussion around who would participate is not for the Working Group to advise on. Traditional inhabitant members and observers agreed that any discussion about who would/could participate in such a trial would require substantial consultation with communities and industry members. Communities could not be excluded from the discussion as all eligible traditional inhabitants, regardless of which community they live in, have the right to fish for beche-de-mer species.
81. An industry observer suggested that there may be an opportunity for each of the PZJA Traditional Inhabitants members to consult with communities about opening the black teatfish fishery when they undertake their TSRA supported 'cluster visits' in October/November 2019.
82. TSRA noted that although the black teatfish stock is healthy and in light of the potential research value in undertaking an experimental fishing trial, it would be difficult for the HCWG to advise on and the PZJA to agree on this limited participation approach given the economic value of the fishery, and absence of any significant management barrier to opening the fishery as status quo (i.e. any licenced TIB fisher can access the fishery). This may be further difficult to justify in the event that the stock survey indicates a potentially higher Recommended Biological Catch (RBC) for black teatfish.
83. The TSRA Fisheries Portfolio member supported the experimental trial approach, adding that it is important to ensure our understanding of the fishery is as accurate as possible. The trial would only be in one season, to better support future generations accessing the BDM fishery.
84. Based on the discussions, the Working Group noted two potential scenarios for opening the black teatfish under the clear and HCWG agreed guidance of the harvest strategy:
 - 1) Opening the fishery with 'status quo Olympic model' management arrangements – with no limitations on access; or
 - 2) Opening the fishery as a one-time experimental fishing trial – with potential limited participation and at least reef-level spatial data.
85. AFMA reminded the Working Group that both options are possible, however there are a range of costs and benefits of each scenario to consider (Table 4).
86. In either scenario, the Working Group agreed the timing of an opening should occur during the TRL season. There is also some value undertaking the stock survey before opening the fishery before in verifying that data collection during the opening was accurate, and conversely undertaking the survey before opening the fishery may indicate a higher harvestable biomass.
87. The Working Group noted the timelines for PZJA traditional inhabitant member community consultation and providing advice to the PZJA would vary depending on the preference of the HCWG and the feedback from communities.
88. Some members expressed support for option 1, noting the importance of collecting the baseline CPUE data for the longer term benefit of the fishery and importance of the community

consultation. Other members expressed support for option 2, with one member supporting option 3 to seek community views on a preference of option 1 or 2.

89. The Gudumalugal traditional inhabitant member noted that consultation should be focussed on BDM industry operators over the broader community.
90. The Working Group noted that this opportunity to discuss more broadly with communities is a great opportunity for Traditional Inhabitants to 'self-regulate' and fill a gap that the harvest strategy cannot currently address (in terms of fishery access or participation). The scientific member added that under either scenario, the mechanisms to access the fishery, and close the fishery once the TAC is caught, remain the same (under the Instrument), however under option 1, any resolution of who may be able to participate can be community-led rather than through the regulation of AFMA or decision by the PZJA.
91. The Working Group further noted that under regulation, the mechanism to implement option 1 with limited access would potentially be through variation of licence conditions or scientific permits, but the decision on who would have access would remain subject to extensive consultation.
92. However, it was recognised that it may not be necessary to give legal effect to access in the trial opening if communities were able to agree amongst themselves about who could participate in the trial opening. The fishery would simply open, under the guidance of the harvest strategy, through the implementation of the Instrument, and application of TIB licences, with communities determining who may fish (despite their legal right with a TIB licence), noting there would be no legal means of enforcing any community arrangement.
93. In consulting with communities, the Working Group agreed that the justification of why access needs to be limited must be clearly communicated, noting that it would only a one-time trial situation and future openings of the fishery would be dependent on timely and accurate catch data being reported.
94. In summary, the Working Group recommended that the PZJA open the black teatfish fishery under the guidance of the BDM harvest strategy on 1 February 2020, contingent on the remaking of the Instrument. The Working Group also recommends that limited access to the black teatfish fishery should be encouraged through the consultative community arrangements led by PZJA traditional inhabitant members (i.e. communities nominate who shall participate in the opening), conditional on the voluntary provision of high resolution (reef-level) spatial data. Further, that any limited access arrangements would not be given effect nor made enforceable through regulation by AFMA.

4.4 Prohibition on hookah

95. TSRA provided an overview of suggested activities that may be undertaken to support the long term use of hookah breathing apparatus in the BDM Fishery, particularly for targeting deeper water species such as white teatfish.
96. Noting that some stakeholders have sought support for use of hookah to target white teatfish for a number of years, the Working Group was asked to consider whether any of the proposed activities should be prioritised.
97. The Working Group noted that there has been a range of risks and issues previously considered including;
 - a. The susceptibility of BDM species to over exploitation due to limited dispersal, patchy distribution, ease of collection, restricted mobility and slow recovery from over fishing.

- b. The lack of timely and accurate catch data which limits the ability of the PZJA to effectively monitor the fishery.
 - c. Compliance risks and cost of monitoring and enforcement to ensure other shallow water species are not over exploited.
 - d. Safety risks for using hookah at depths greater than 20 meters.
98. The Working Group acknowledged that the key objective and desire of some industry members is to permit the use of hookah to target white teatfish, however, how this is to be achieved needs further consideration. AFMA reminded the Working Group that the PZJA must take into consideration the objectives under the *Torres Strait Fisheries Act 1984* when discussing how to progress this issue.
99. The Scientific member noted that although there are still some inherent concerns with the use of hookah, notwithstanding that some communities do not support the use of hookah in their waters, there are some good management tools already in place (e.g. the Harvest Strategy, the Fish Receiver System) that would ameliorate some of the over-exploitation risk, compliance or sustainability concerns. This means that the remaining concerns are in relation to the aspirations of communities with some supporting hookah and others not.
100. An industry observer expressed support for other communities using hookah but noted that the use of hookah in both Ugar and Erub is not desired or supported by those communities. He supported that progression of a longer term strategic management approach to address how the use of hookah could be introduced.
101. The Maluialgal traditional inhabitant member noted it would be more useful to consider this issue in the longer term only, and take the time to develop clear objectives, management tools and establish a long term vision for the fishery. AFMA agreed that focussing on long term options would provide the space and opportunity to consider the ramifications of permitting hookah and allow the time to map out how the benefits of the resource would be shared in relation to the fishery objectives. It would require a well formed plan outlining exactly how a proposal to use hookah would work, taking into consideration the views of broader industry, for the PZJA to consider.
102. Industry members suggested the following broad points to be developed into a formal proposal that focused on a long term vision for the fishery:
- a. The ability for all TIB licence holders to be able to use hookah;
 - b. To use hookah to fish for white teatfish only;
 - c. Use the TDB02 'areas fished' map to spatially exclude Area 16 from the use of hookah (as per the aspirations of Ugar and Erub communities);
 - d. Comprehensive consultation with broader communities before implementing the proposed change;
 - e. Additional conditions imposed on reporting requirements;
 - f. Mechanisms for ensuring compliance and enforcement of the rules;
 - g. Consideration for a trial basis – allowing a period of review to understand and mitigate against any unexpected outcomes;
 - h. Suggestion to use moon-tide closures;
 - i. Consider the change in management arrangements in the context of the Harvest Strategy and apply the same logic for re-opening a closed species and a 'higher bar' of management standards and additional conditions.

103. The AFMA member suggested that TSRA and AFMA collaborate to draft up a proposal based on the aforementioned points, for comments by HCWG members. TSRA added that in the absence of a full discussion paper, PZJA traditional inhabitant members can discuss the draft proposal with their communities during their 'cluster visits' to seek additional feedback.

ACTION ITEM #2: TSRA and AFMA to develop a discussion paper outlining suggested management arrangements, based on HCWG discussions for pursuing the use of hookah to fish for white teatfish, for further consultation with communities and consideration by the HCWG and the PZJA.

4.5 Future Management Priorities

104. In order to effectively discuss future management priorities for hand collectable fisheries, the AFMA member suggested that the Working Group discuss and advise on a process to develop future management priorities.
105. The Working Group agreed that to allow sufficient time and discussion on management priorities and a strategic vision for hand collectables fisheries, that a dedicated half to full day workshop be held in conjunction with the next HCWG meeting. Participants to the meeting should include HCWG members, other industry stakeholders including factory processors and/or buyers, and should also include discussions on pearl shell and trochus fisheries.

ACTION ITEM #3: AFMA to arrange a half/full day future management priorities workshop in conjunction with the next Hand Collectables Working Group meeting.

5 Research

5.1 Outcomes from the Torres Strait Scientific Advisory Committee (TSSAC) meeting

106. The Working Group noted an overview on the outcomes of the recent TSSAC annual research cycle, in particular that:
- a. Seven projects were considered by the TSSAC this cycle, with six projects supported for funding, including the full proposal for a stock survey of Torres Strait beche-de-mer species.
 - b. The other projects are:
 - i. A fishery independent survey, stock assessment, harvest strategy and Recommended Biological Catch calculation for the Torres Strait Tropical Rock Lobster Fishery;
 - ii. A Spanish mackerel stock assessment;
 - iii. Enhancing biological data inputs to the Torres Strait Spanish mackerel stock assessment;
 - iv. A scoping study on climate variability and change relevant to key fisheries resources in the Torres Strait;
 - v. Management Strategy Evaluation (MSE) for the Torres Strait Prawn Fishery Harvest Strategy;

- vi. Measuring non-commercial fishing (indigenous subsistence fishing and recreational fishing) in the Torres Strait in order to improve fisheries management and promote sustainable livelihoods; and
 - vii. An Ecological Risk Assessment (ERA) for the Torres Strait Beche-de-mer Fishery.
107. The projects supported have committed TSSAC research funds for 2019-20 and approximately \$365,000 (of a possible \$411,000) for 2020-21. Acknowledging the BDM stock survey as a very high priority, the TSRA agreed to commit additional funding to support the survey being undertaken as soon as feasible, outside of the available TSSAC funds.
108. The stock survey evolved through a recommendation from HCWG14 to undertake an experimental fishing survey to understand the stock status of sandfish on Warrior Reef, which was then broadened in scope to extend to a full stock survey of all Torres Strait sea cucumber species with an additional focus on deeper water species (e.g. white teatfish).

5.2 Torres Strait Beche-de-mer Stock Survey

109. Nicole Murphy (CSIRO) provided an overview of the upcoming fishery independent BDM survey funded by the TSRA. The Working Group noted:
- a. The project includes three key population surveys:
 - i. the east Torres Strait fishery with a focus on prickly redfish, curryfish species black teatfish and surf redfish;
 - ii. a limited exploration of deep water habitats using underwater video analysis; and
 - iii. a survey focussed on sandfish on Warrior Reef.
 - b. The key deliverables from the surveys are to:
 - i. Produce stock size estimates and distribution data, and assess the fishery status for each population of beche-de-mer in the Torres Strait, including the sandfish fishery.
 - ii. Use survey data to make recommendations on potential fishery expansion (i.e. recommended biological catches) and re-opening of closed fisheries.
 - iii. Map important habitat variables, especially those relevant to fishery production.
 - iv. Make survey outputs available in a form suitable for use in the BDM HS.
 - v. Produce formal final reports and a plain English summary document with special consideration of Traditional Knowledge.
110. The Working Group noted that they survey methods will be similar to previous years, surveying reef tops, counting sea cucumbers, as well as recording numbers of giant clams, pearl shells, trochus and percentage coverage of habitat. Any sea cucumbers collected for sampling and identification purposes will be returned to the water in the same location. The survey work is intended to also occur during similar times as previous surveys (summer months), taking in to consideration burrowing times, season, tides and time of day. Underwater video analysis will also be based on previous survey years and will include a comparison of earlier habitat data from other surveys, as well as advice and local knowledge from fishers.
111. Fisher involvement is constrained by CSIRO diving occupational health and safety policies, however there will be other opportunities for Torres Strait Islanders to participate when undertaking reef walking surveys on Warrior Reef and underwater video surveys.

5.3 Research update

112. Rocky Stephen gave a presentation on the independent research work he is undertaking with CSIRO on Enhancing Beche-de-mer Fisheries in Ugar Island, Torres Strait. The Working Group noted that Rocky's research is exploring two options to improve beche-de-mer stocks:
 - a. The aggregation of adults on the home reefs of Ugar to ensure there enough males and females in the vicinity to successfully reproduce. This entails finding suitable habitat to aggregate the adults, which may be identified through the broader CSIRO led, Torres Strait Beche-de-mer Stock Survey.
 - b. The release of small juveniles reared in a small, land-based aquaculture facility on land. This entails inducing the spawning of adults in tanks and releasing the juveniles back in to the wild (re-seeding).
113. The research objectives of the project are to:
 - a. Develop techniques to improve beche-de-mer fisheries that are cost-effective and work well in the context of the Torres Strait;
 - b. Build local capacity for monitoring and restocking techniques for beche-de-mer resulting in local people having ownership of the work and the ability to carry it on independently after the project is completed;
 - c. Measure the contribution of each restocking technique using marine survey counts and genetic analysis;
 - d. Understanding what stakeholders consider to be a success for the project (e.g. increase in the number of BDM found on home reefs; the ability of people from Ugar to work at sea; the number of jobs generated; increase in income, etc); and
 - e. To engage with the community and develop communication avenues between the Ugar community, researches, industry and management agencies to incorporate both local and scientific knowledge into the project.
114. The Working Group noted some important considerations critical to the success of the project:
 - a. To engage with stakeholders to identify needs and expectations, incorporate local inputs, and find common solutions;
 - b. Build local capacity and ownership; and
 - c. Ensure effective communication between researchers and stakeholders to ensure mutual understanding about progress, challenges and opportunities.
115. The project team is currently awaiting the outcome of a funding application submitted to the Cooperative Research Centre for Northern Australia. The request is for approximately \$1 million over three years. The CRCNA is investing \$75 million of Commonwealth funds over ten years to support industry-led research collaborations. The funding is intended to develop new technologies, products and services which addresses issues in Northern Australia with three focus areas:
 - a. Agriculture and food (including aquaculture);
 - b. Northern Australia Health Service Delivery; and
 - c. Traditional owner-led business development.

116. The Working Group was unanimous in congratulating Rocky and CSIRO on their efforts to progress this project and expressed broad support for this work to continue. The Working Group welcomes a further updates from the project team.

5.4 Five Year Fishery Research Plan

117. The Working Group discussed and advised on research priorities for hand collectable fisheries in line with the three research themes identified under the TSSAC Strategic Research Plan to support the Five Year Hand Collectable Fisheries Research Plan 2020/21 – 2023/24.
118. Noting a declared conflict of interest in the matter, CSIRO suggested that Management Strategy Evaluation (MSE) testing of the BDM HS be considered as a future research priority. The Working Group acknowledged that some components of the BDM HS are underpinned with MSE tested mechanisms, it would be best practice to undertake full MSE testing of the HS to ensure it is achieving its objectives. The outcomes of the testing are useful in helping understand the risk (if any) to the fishery. The Working Group further noted that it may take 3-5 years of harvest strategy implementation and time series of data before MSE testing is achievable, however should there be external pressure (e.g. from a CITES Appendix II listing) to demonstrate the HS is working, MSE can occur sooner.
119. The Maluialgal traditional inhabitant member reiterated the importance of the TIB sector upholding their responsibilities in providing timely and accurate catch data to support MSE testing of the BDM HS.
120. TSRA suggested assessing the longer term socio-economic value of beche-de-mer, trochus and pearl shell fishery and understanding where the maximum value lies in meeting the fishery objectives under the *Torres Strait Fisheries Act 1984*.
121. Given the anecdotal evidence of increased product wastage, particularly with curryfish species during handling processes, TSRA suggested undertaking an assessment of the risks and impacts of discarded and wasted product on the integrity of TAC limits. This could be coupled with understanding and improving industry processing methods to achieve higher market prices (particularly for lower value species).
122. Industry members agreed that it would be useful to understand more about market chains and trends in supply and demand for beche-de-mer, noting that some of this information is to be included in the TSRA Exporters Handbook.
123. The Working Group agreed that undertaking field sampling of BDM species to develop conversion ratios for boiled and salted weight to gutted weight, and understand critical uncertainties for Torres Strait species and processing methods should remain as an essential and high research priority. Although there are ongoing efforts by industry members to collect conversion ratio data in the field, there are significant benefits in undertaking a small, concise and targeted research project to collect the data in the short term.
124. The Working Group also agreed that identifying gaps in knowledge of biological parameters of BDM species including growth, mortality, size and breeding seasonality should remain as a desirable and lower research priority.

ACTION ITEM #4: AFMA to populate the Hand Collectable Fisheries Five Year Research Plan based on HCWG discussions and circulate back to HCWG members out of session for comment before submitting to the TSSAC for their consideration.

6 Other Business

6.1 Budget Update

125. AFMA provided a brief overview of the 2018/19 budget expenditure and overview for the 2019/20 budget ahead, noting in particular:
- a. AFMA's 2018/19 budget for direct costs for Hand Collectable fisheries was \$84,531 which covered one 3-day working group meeting on Thursday Island, one 2-day Working Group meeting on Thursday Island and one 1-day industry workshop on Erub.
 - b. Underspent funds from the Hand Collectables budget contributed to other Torres Strait fishery expenses including community visits for the fish receiver system and draft BDM HS consultation, the development of minimum size limit rulers (still in production at time of writing) and an industry exposure trip for three PZJA traditional inhabitant members.
 - c. The 2019/20 budget has increased by \$29,814 from 2018/19 to fund a proposed industry/stakeholder workshop ahead of a potential black teatfish opening.

6.2 Other business

126. The Working Group agreed that a standing agenda item update for both trochus and pearl shell fisheries be included on the agenda for each HCWG meeting, noting that while fishing activity in these fisheries is very negligible, it is useful to continue to monitor and discuss them at the Working Group level.
127. Further, the Working Group agreed that an exchange of industry members (not just government) at both TS HCWG and Queensland Sea Cucumber Fishery Working Group (SCFWG) meetings would be beneficial. AFMA agreed to investigate the possibility of an industry member accompanying AFMA staff to the next Queensland SCFWG meeting scheduled later in 2019.

ACTION ITEM #5: AFMA to investigate the possibility of a HCWG industry member accompanying AFMA staff to the next Queensland Sea Cucumber Fishery Working Group meeting.

6.3 Date and venue for next meeting

128. The Working Group did not agree on a date for the next meeting of the HCWG but acknowledged that the group is likely to meet following the cluster visits and consultation on black teatfish and white teatfish.
129. The Chair thanked everyone for their commitment and contributions throughout the meeting which was closed in prayer at 4.45pm on Friday 2 August 2019 by Mr Rocky Stephen.

Table 4. Summary of costs and benefits of potential black teatfish opening scenarios.

Option		Benefits	Costs/Risk	Other considerations
1	Experimental trial with collection of high resolution data	<ul style="list-style-type: none"> Scientific value in developing CPUE baseline to compare with survey data May lead to less precautionary TAC in longer term Improve industry understanding of importance of data 	<ul style="list-style-type: none"> Consideration of limited participation Cost and time associated with comprehensive consultation Fishery may open later 	<ul style="list-style-type: none"> Implementation of Harvest Strategy and Management Instrument Objectives under the <i>Torres Strait Fisheries Act 1984</i> Implications of possible CITES Appendix II listing
2	'Status quo' Olympic model	<ul style="list-style-type: none"> All fishers have ability to participate Fishery may open sooner May still enable collection of high resolution data from some volunteers 	<ul style="list-style-type: none"> Potential for 'goldrush' mentality with influx of new TIB licences (although some natural organisation of who will actually participate) Potential to overcatch the TAC Possible disadvantage to full time fishers in subsequent seasons Increased potential for wastage and discards due to poor quality handling techniques and product 	

Table 5. Status of action items arising from previous HCWG meetings.

#	Meeting #	Action item	Responsibility	Status
1	9 (20-21 June 2016)	AFMA to review the size limits set for the Torres Strait Beche-de-mer Fishery taking into consideration the size limits in place in Queensland and the Commonwealth Coral Sea Fishery.	AFMA	Ongoing. Proposed changes to size limits were agreed to at HCWG14 and the corresponding Harvest Strategy Workshop (23 October 2018) as part of the Beche-de-mer Harvest Strategy development. If agreed to by the PZJA, changes to minimum size limits will be made through the remaking of <i>Fisheries Management Instrument No. 15</i> .
2	11 (27 June 2017)	Consideration on whether or not changes should be made to the current size limit for Prickly Redfish be undertaken during the Harvest Strategy Workshop noting relevant data will be presented.	AFMA	Ongoing. Proposed changes to size limits were agreed to at HCWG14 and the corresponding Harvest Strategy Workshop (23 October 2018) as part of the Beche-de-mer Harvest Strategy development. If agreed to by the PZJA, changes to minimum size limits will be made through the remaking of <i>Fisheries Management Instrument No. 15</i> .
3	13 (24 July 2018)	AFMA to ensure Malu Lamar is included in all aspects of consultation regarding the proposed legislative amendments to the Act and the Regulations.	AFMA	To be removed. AFMA proposes that this be removed from the list of action items. AFMA remains committed to consulting with all stakeholders in relation to the proposed legislative amendments to the <i>Torres Strait Fisheries Act 1984</i> , and <i>Torres Strait Fisheries Regulations 1985</i> . An update on the proposed amendments is provided under Agenda item 2.2.2 (AFMA update).
4	Out of Session (July 2018)	The TSRA to assist TIB licence holders to develop a proposal to lift the hookah ban when fishing for white teatfish, to be put up to the PZJA for consideration.	TSRA	Ongoing. The TSRA Fisheries Program is progressing this action and will provide an update under Agenda Item 4.4.
5	14 (24 October 2018)	The QDAF member to provide information regarding an East Coast Indigenous Fishing Permit (FIP) to TIB fishers out of session, to be circulated by AFMA.	QDAF AFMA	Complete. Information on a Queensland Indigenous Fishing Permit is provided at Attachment 1.4b . This information was circulated to HCWG members on 11 July 2019.

6	14 (24 October 2018)	Malu Lamar, AFMA and TSRA to meet and discuss a way forward in terms of an MOU/combined strategy to assist in improved data collection and proposed management arrangements in support of a black teatfish opening.	Malu Lamar AFMA TSRA	<p>Not completed.</p> <p>AFMA will continue to work with all stakeholders and the HCWG on a strategy to improve data collection and develop management arrangements in support of a black teatfish opening. This action item was developed in response to industry observers advocating for the development of an industry based MOU that outlines the standards of data needed to demonstrate improved reporting.</p> <p>AFMA recommends that this proposed action be further discussed under Agenda item 4.3, Black Teatfish.</p>
7	14 (24 October 2018)	AFMA to draft a letter on behalf of the HCWG expressing the support the re-seeding research being pursued by industry members in Ugar.	AFMA	<p>Not for actioning.</p> <p>AFMA is supportive in principle, of research that may benefit industry development and is able to offer specific expertise and advice as needed. The HCWG is an advisory body to the PZJA. Although well intended, it is beyond the Working Groups terms of reference to provide letters of support to third parties.</p>

Attachment A – Adopted Agenda

15th MEETING OF THE PZJA TORRES STRAIT HAND COLLECTABLES WORKING GROUP

1 – 2 August 2019 (8:30 am – 5:00 pm)

TSRA Boardroom, Thursday Island

ADOPTED AGENDA

The meeting will open at 8.30am on Thursday 1 August 2019.

AGENDA ITEM 1 PRELIMINARIES

1.1 Acknowledgement of Traditional Owners, welcome and apologies

The Chair will welcome HCWG members, permanent observers, and casual observers to the 15th Torres Strait Hand Collectables Working Group.

1.2 Adoption of agenda

The working group is invited to consider and adopt the draft agenda.

1.3 Declarations of interest

Working group members are invited to declare any real or potential conflicts of interests to the group and determine whether a member may or may not be present during discussion of or decisions made on the matter which is the subject of the conflict.

1.4 Action items from previous meetings

The working group will note the status of action items arising from previous HCWG meetings.

1.5 Out of session correspondence

The working group will note any out of session correspondence on HCWG matters since the previous meeting.

AGENDA ITEM 2 WORKING GROUP UPDATES

2.1 Industry and Scientific members

This agenda item is an opportunity for the Working Group to develop a common understanding of Hand Collectable fisheries including recent fishing, economic, biological and ecological trends. Industry and scientific members are asked to provide a brief verbal update on any recent developments relevant to Hand Collectable fisheries. The Working Group will note the updates from industry and scientific members and observers.

2.2 Government

2.2.1 Australian Fisheries Management Authority (AFMA)

2.2.2 Torres Strait Regional Authority (TSRA)

2.2.3 Queensland Department of Agriculture and Fisheries (QDAF)

The Working Group will note updates from each of the PZJA government agency members on the latest developments relevant to Hand Collectable fisheries.

2.3 Native Title

The Working Group will note a verbal update from the Malu Lamar representative if in attendance.

2.4 PNG National Fisheries Authority

The Working Group will note an update from the PNG NFA member if in attendance.

AGENDA ITEM 3 HARVEST STRATEGY

3.1 Outcomes of the draft Beche-de-mer Harvest Strategy consultation

AFMA will provide an overview of the outcomes from the recent draft Beche-de-mer Harvest Strategy consultation period.

Expected Outcome: The Working Group will **consider** the comments made on the draft Harvest Strategy during the recent consultation period and **provide advice to the PZJA** on a final harvest strategy for PZJA endorsement.

3.2 Implementation of the Harvest Strategy

AFMA will outline a plan for harvest strategy implementation by the 2020 season including the remaking of *Torres Strait Fisheries Management Instrument No. 15* (the Instrument).

Expected Outcome: The Working Group will consider the plan for implementation on the draft Harvest Strategy and **provide advice to AFMA and the PZJA** on the proposed remaking of the draft Instrument and associated Explanatory Statement.

3.3 Beche-de-mer Species ID Guide and Weight Conversion Ratio research

CSIRO will provide a brief update on the new version of the Beche-de-mer species ID guide as part of the Harvest Strategy Project.

Expected Outcome: The Working Group will **provide comments to CSIRO** on the draft Beche-de-mer species ID guide.

AGENDA ITEM 4 MANAGEMENT

4.1 Catch Data Summary

AFMA will provide an overview of reported beche-de-mer catch and effort data from the 2018 fishing season, and the 2019 season to date.

Expected Outcome: The Working Group will **discuss** the data summaries and **advise AFMA** on the likely accuracy of the catch reports, and **provide advice** on the Fish Receiver System more broadly.

4.2 Compliance in the Beche-de-mer Fishery

The Working Group will note an update from the AFMA Compliance Manager will provide an update on the domestic compliance program and compliance risks in the Beche-de-mer Fishery.

4.3 Black Teatfish

In consideration of an updated stock survey of Torres Strait beche-de-mer species and the implementation of the Beche-de-mer Harvest Strategy, the Working Group will consider a future black teatfish opening and provide advice on the management arrangements and timing and management arrangements of a possible opening.

Expected Outcome: The Working Group will **provide advice to the PZJA** on a suitable time and appropriate management arrangements required to conduct a black teatfish opening in the context of an updated beche-de-mer stock survey and guidance within the draft harvest strategy for re-opening a closed species.

4.4 Prohibition on hookah

The use of hookah is currently prohibited within the Beche-de-mer Fishery. At HCWG13, the TSRA offered to draft a proposal on behalf of Traditional Inhabitants to remove the prohibition. The TSRA will provide an update on the proposal to remove the prohibition on hookah in the Torres Strait beche-de-mer fishery.

Expected Outcome: The Working Group will discuss and **provide advice to the TSRA** on the draft proposal to remove the prohibition on the use of hookah.

4.5 Future Management Priorities

Having agreed management priorities and a work plan for Hand Collectable Fisheries aims to achieve a more efficient management process. At each HCWG meeting, the Working Group should review any standing management priorities and consider any future management priorities for Hand Collectable Fisheries.

Expected Outcome: The Working Group will **discuss and provide advice** on management priorities for Torres Strait Hand Collectable Fisheries.

AGENDA ITEM 5 RESEARCH

5.1 Outcomes from the Torres Strait Scientific Advisory Committee (TSSAC) meeting

The Working Group will note an update on the outcomes of the recent TSSAC meeting which endorsed the full proposal for CSIRO to undertake a stock survey of Torres Strait beche-de-mer species.

5.2 Torres Strait Beche-de-mer Stock Survey

The Working Group will note an update from CSIRO on the upcoming stock survey for the Torres Strait Beche-de-me Fishery. AFMA will also provide an overview of the impact of the survey on the HCWG work plan.

5.3 Research Update

The Working Group will note an update from industry observers, Simon Naawi and Rocky Stephen regarding the beche-de-mer research projects they are involved in.

5.4 Five Year Fishery Research Plan

A five-year rolling research plan for Hand Collectable Fisheries is used to inform the Torres Strait Scientific Advisory Committee's (TSSAC) annual call for research funding proposals.

Expected Outcome: The Working Group will discuss and **provide advice** to the TSSAC on research priorities for the beche-de-mer, trochus, mud crab and pearl shell fisheries under the Five-Year Rolling Research Plan 2020/21 – 2023/24.

AGENDA ITEM 6 OTHER BUSINESS

6.1 Budget Update

The Working Group will note a summary provided by AFMA regarding the Hand Collectables fishery budget and expenditure for the 2018-19 financial year, and a brief update for 2019-20 financial year.

6.2 Other Business

The Working Group is invited to nominate any other business for discussion.

6.3 Date and venue for next meeting

The Working Group will consider a date and venue for HCWG16.

CLOSE OF MEETING

Summary of Actions Arising from HCWG15

Table 6. Summary of action items arising from HCWG15.

#	Action item	Responsibility
1	Dr Eva Plaganyi to circulate information about upcoming scientific conferences that could serve as opportunities to showcase the Torres Strait BDM HS as a good news story.	Dr Eva Plaganyi (CSIRO)
2	TSRA and AFMA to develop a discussion paper outlining suggested management arrangements based on HCWG discussions for pursuing the use of hookah to fish for white teatfish, for further consultation with communities and consideration by the HCWG and the PZJA.	TSRA AFMA
3	AFMA to arrange a half/full day future management priorities workshop in conjunction with the next Hand Collectables Working Group meeting.	AFMA
4	AFMA to populate the Hand Collectable Fisheries Five Year Research Plan based on HCWG discussions and circulate back to HCWG members out of session for comment before submitting to the TSSAC for their consideration.	AFMA
5	AFMA to investigate the possibility of a HCWG industry member accompanying AFMA staff to the next Queensland Sea Cucumber Fishery Working Group meeting.	AFMA

Summary of HCWG15 Meeting Recommendations

Table 7. Summary of meeting recommendations arising from HCWG15.

#	Recommendation
1	Noting the outcomes of public consultation on the draft Beche-de-mer Harvest Strategy, the Working Group recommends the PZJA adopts the draft Harvest Strategy as final.
2	The Working Group recommends that the PZJA agrees to remake <i>Fisheries Management Instrument No. 15</i> to give effect to the management of the BDM fishery under the Harvest Strategy.
3	The Working Group recommends that the conversion ratios specified under the BDM Harvest Strategy, including the use of proxies where there are information gaps; be applied to monitor reported catches against TAC limits in the BDM Fishery, noting that conversion ratios may be updated overtime as new information becomes available.
4	That the Working Group recommends the PZJA consider a trial opening of the black teatfish fishery on 1 February 2020, contingent on the implementation of the beche-de-mer Harvest Strategy, and remaking of the <i>Fisheries Management Instrument No. 15</i> (FMI No. 15); noting that HCWG Traditional Inhabitant members will undertake community consultation regarding constraining access of TIB licence holders to black teatfish resources through customary protocols and traditional lore, and collecting high resolution catch and effort data to complement the BDM stock survey and provide a CPUE baseline.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
PRELIMINARIES Out of session correspondence	Agenda Item 1.5 For NOTING

RECOMMENDATIONS

1. That the Working Group **NOTE** the correspondence circulated out of session since the last meeting held on 1-2 August 2019.

BACKGROUND

2. The following correspondence was circulated out of session since HCWG15 held on 1-2 August 2019. Copies of this correspondence can be requested at any time from the HCWG Executive Officer.

Date	Item
5 August 2019	AFMA circulated information on Action Item #2 arising from HCWG15.
27 August 2019	AFMA circulated the draft meeting record for HCWG15 held on 1-2 August 2019, seeking comment from members. The comment period was open until 10 September 2019.
16 September 2019	AFMA circulated the final meeting record of HCWG15, as well as four out-of-session (OOS) papers for HCWG consideration, including: <ol style="list-style-type: none"> 1. Proposed changes to the BDM Harvest Strategy Catch-based Decision Rule (for ADVICE); 2. An Update on BDM Harvest Strategy Implementation (for NOTING); 3. An update on a black teatfish opening (For NOTING); and 4. The Five Year Fishery Research Plan (for ADVICE).
24 September 2019	AFMA sent a reminder email to members regarding the provision of comments on OOS papers.
24 September 2019	AFMA circulated information on the outcomes of the CITES Appendix II listing of white teatfish and black teatfish sea cucumber species.
09 October 2019	AFMA circulated a summary of comments provided by HCWG members on out-of-session papers for advice.
29 November 2019	AFMA notified HCWG members of the adoption of the final Beche-de-mer Harvest Strategy by the PZJA at their meeting on 19 November 2019. An SMS and email was sent to all licence holders advising the same. The BDM Harvest Strategy was also made available on the PZJA website.
9 December 2019	AFMA circulated a scope for a research project related to the TS Beche-de-mer Fishery as part of the Torres Strait Scientific Advisory

	Committee call for research pre-proposals for the 2020-21 funding year.
16 December 2019	AFMA sent a letter to all licence holders advising of the adoption of the BDM Harvest Strategy and associated changes to TACs and conversion ratios, effective as of 1 January 2020.
14 January 2020	AFMA emailed all HCWG members seeking availability for a meeting proposed to be held on 14 February 2020 on Thursday Island. A draft agenda for HCWG16 was also included.
15 January 2020	AFMA emailed all HCWG members with a revised meeting date of 21 February 2020.
7 February 2020	AFMA circulated the meeting papers for HCWG16, noting that 1 meeting paper, and some attachments were still pending.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
WORKING GROUP UPDATES Industry members	Agenda Item 2.1 For NOTING

RECOMMENDATIONS

1. That the Working Group:
 - a. **NOTE** any updates provided by industry members and observers;
 - b. **NOTE** the outcomes of the PZJA Traditional Inhabitant cluster consultations undertaken between October and November 2019, and January 2020 and
 - c. **DISCUSS** any strategic issues, including economic trends, affecting the management and development of Torres Strait Hand Collectable fisheries.

KEY ISSUES

2. Industry members and observers are asked to provide any updates on trends and opportunities in global markets, processing and value adding.
3. PZJA Traditional Inhabitant members specifically are asked to report back on the outcomes of the recent PZJA cluster consultations held during October - November 2019 and early 2020.
4. To date, cluster consultations have been conducted for Kemer Kemer Meriam (15-17 October, and Ugar 5 February 2020), Gudumalulgal (21-24 October), Kulkaigal (4-8 November), Maluiligal (21-26 November) and Kaiwalagal (Thursday Island – 21 January 2020).
5. A copy of the slides presented at each consultation is provided at **Attachment 2.1a**. A summary of the consultation meeting records is provided at **Attachment 2.1b (pending)** and copies of individual island meeting records are available on request.
6. The consultations were undertaken to allow PZJA Traditional Inhabitant members to report back to their communities on activities related to PZJA fisheries and consultative committees over the past 12 months. The consultations were supported by the TSRA and AFMA staff attended most meetings. The cluster consultations also sought to get feedback from communities on key issues within each fishery or PZJA consultative committee.
7. It is important that the Working Group develops a common understanding of any relevant matters across the Torres Strait and what issues if any, are having the greatest impact on industry and the management of fisheries. Such understanding will ensure proceedings of the Working Group are focused and may more effectively address each issue.
8. The Working Group is being asked to consider this information and have regard for it when discussing a future reopening of black teatfish and, where relevant, future management priorities.

BACKGROUND

9. At the previous meetings of the Working Group, members discussed a range of strategic issues affecting the management and development of Torres Strait fisheries.
10. HCWG15 (1-2 August 2019) noted the following on-water industry updates:

- a. Beche-de-mer stocks in Kemer Kemer Meriam waters are reportedly looking healthier with many observations of white teatfish, black teatfish and larger sized prickly redfish on the reefs. There is a new BDM buyer operating from Mer purchasing BDM product which is encouraging to see investment in the community. A number of TIB fishers on Mer are working closely with the new buyer to ensure small animals are not harvested. Freight costs are expensive. Product is typically freighted directly to Cairns via Seaswift and then trucked further south. Freight on board flights out of Mer is limited due to weight restrictions.
 - b. There has been a significant period of rough weather, with winds up to 30 knots resulting in fishers out on Mer only working approximately six months of the past year. This is notably different to earlier years but has allowed dive crews some rest time.
 - c. Sizes of prickly redfish are notably larger, with anecdotes that usually around 30-40 pieces (of BDM) are required to make 40kg of product however now the larger sized sea cucumbers only require around 20 pieces to achieve the same weight of product.
 - d. Fishers at Ugar have mostly been focusing on finfish species with very little activity in the BDM fishery. This is largely due to the rough weather, however the mackerel have been continuing to bite. When Ugar fishers are working BDM, the product is typically salted.
11. Further details of discussions are provided in the meeting record for HCWG15 provided at **Attachment 1.4b.**

Protected Zone Joint Authority (PZJA) Traditional Inhabitant Members

Kemer Kemer Meriam Consultation



Purpose of todays meeting

1. Kemer Kemer Meriam PZJA Traditional Inhabitant Members provide fishery updates
 - Tropical Rock Lobster
 - Finfish
 - Hand Collectables
 - Prawn
2. Research updates
 - TSSAC
3. General fishery discussion
 - Catch reporting
4. PZJA agencies updates





Who are your PZJA Traditional Inhabitant Members?

PZJA Committee	Kemer Kemer Meriam Traditional Inhabitant Members
Tropical Rock Lobster Working Group (TRLWG)	Les Pitt
Tropical Rock Lobster Resource Assessment Group (TRLRAG)	Les Pitt
Finfish Working Group (FWG)	Rocky Stephen
Finfish Resource Assessment Group (FRAG)	John Tabo, Kenny Bedford, Rocky Stephen
Hand Collectable Working Group (HCWG)	Michael Passi
Prawn Management Advisory Committee (TSPMAC)	William Stephen
Scientific Advisory Committee (TSSAC)	Rocky Stephen

Finfish Fishery

Finfish Resource Assessment Group (FRAG)

Finfish Working Group (FWG)

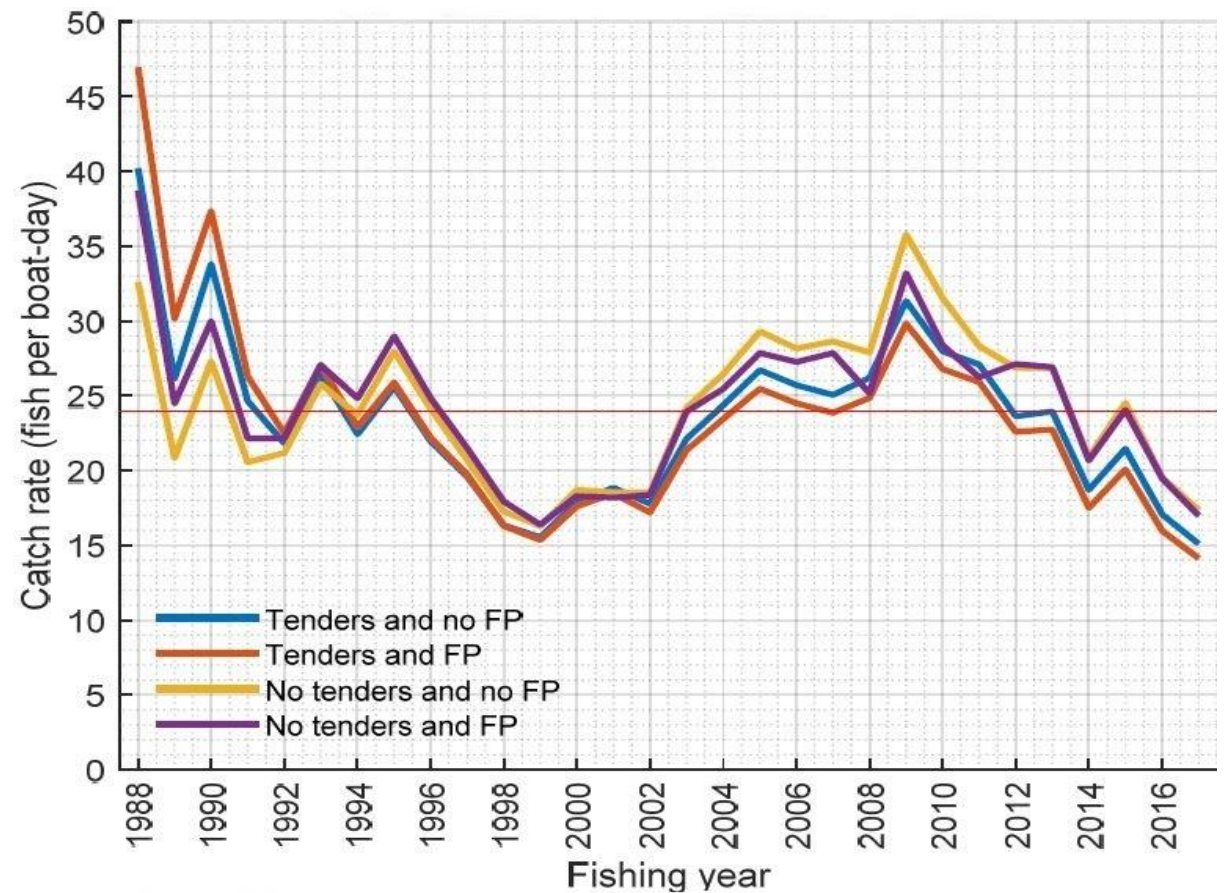
Finfish is 100% TIB owned

2018-19 Finfish Season Total Catches

Species Name	TAC (tonne)	Reported Catch (tonne)	Available TAC (tonne)	% TAC Caught
TIB Sector				
Spanish Mackerel	26	6.4	19.5	24.7%
Coral Trout	86.9	5.9	80.9	6.8%
Sunset Licence Sector				
Spanish Mackerel	89	57.7	31.3	64.8%
Coral Trout	48	13.1	34.9	27.2%

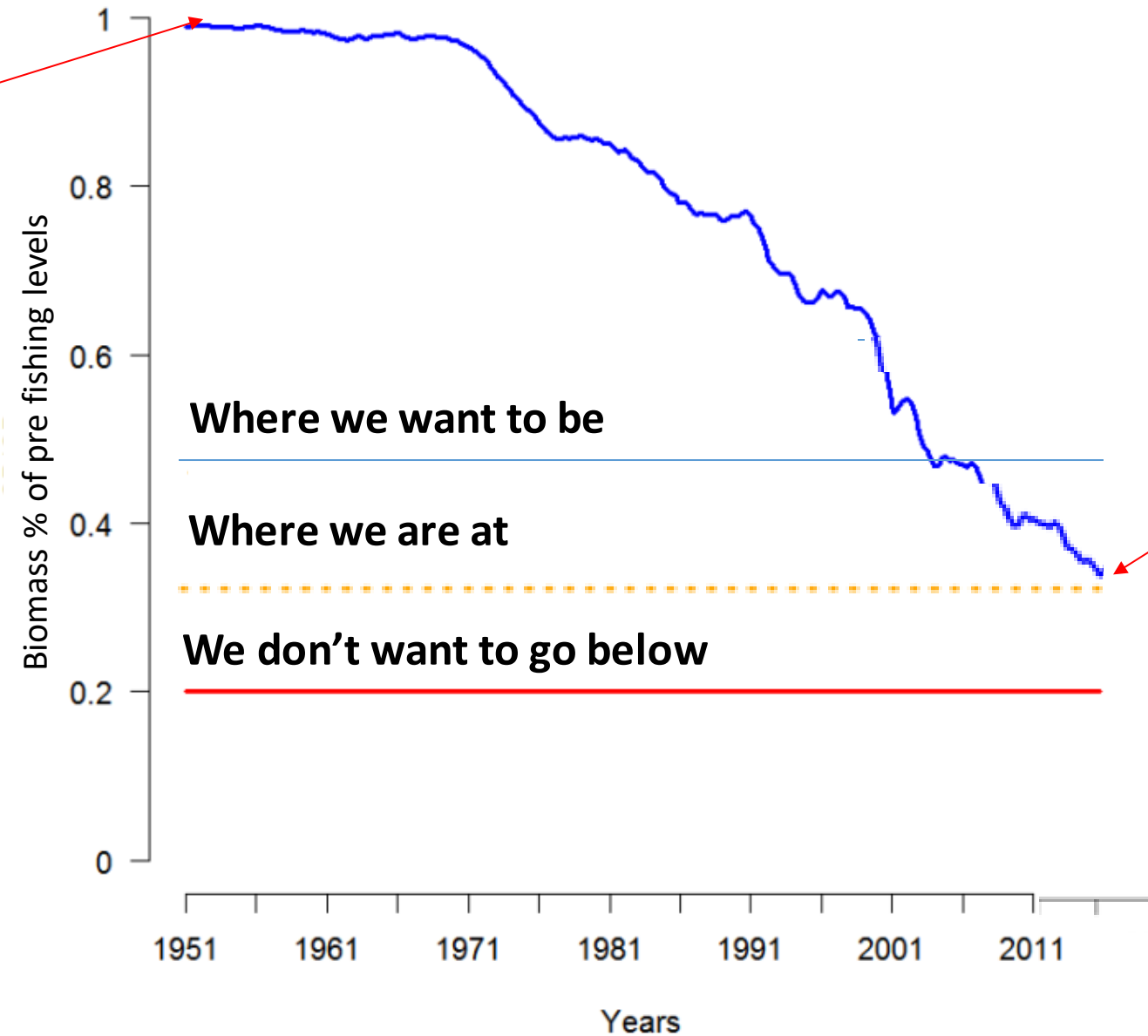
Spanish Mackerel - declining catch rate trend

- Spanish mackerel stock is currently estimated at 23 per cent of pre-fishing levels
- Declining catch rate trend
- We do not know what is driving this downward trend
- 2019-20 season = 82 tonnes TAC
- 2018-19 season = 115 tonnes TAC



Example Fishery Graph

The estimated fish stock before commercial fishing



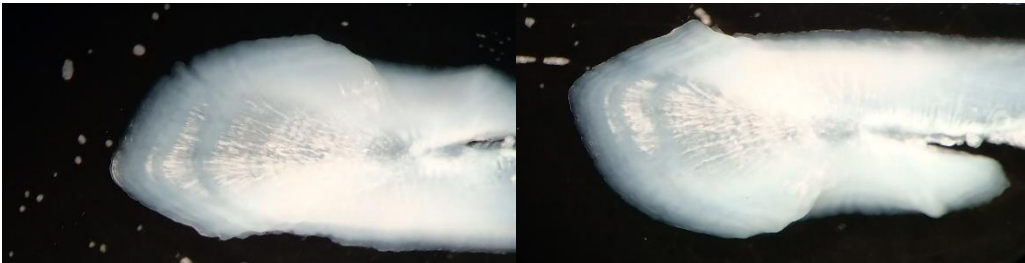
The current estimated fish stock

Current Research

56

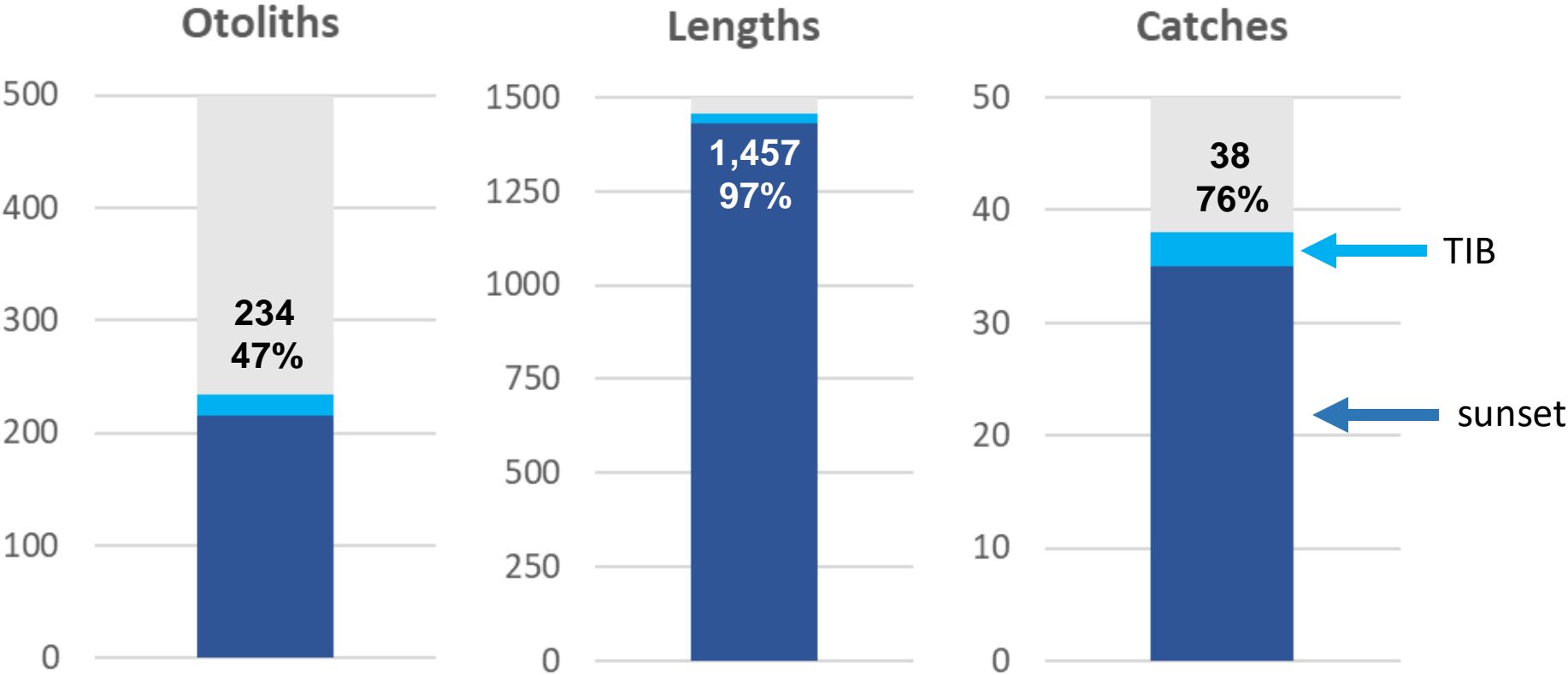
Spanish Mackerel Biological Sampling

- Fishers to collect Spanish mackerel ageing and length data
- Understand the declining catch rate
- Workshops on Erub, Masig Mer and Ugar





Progress: data and samples



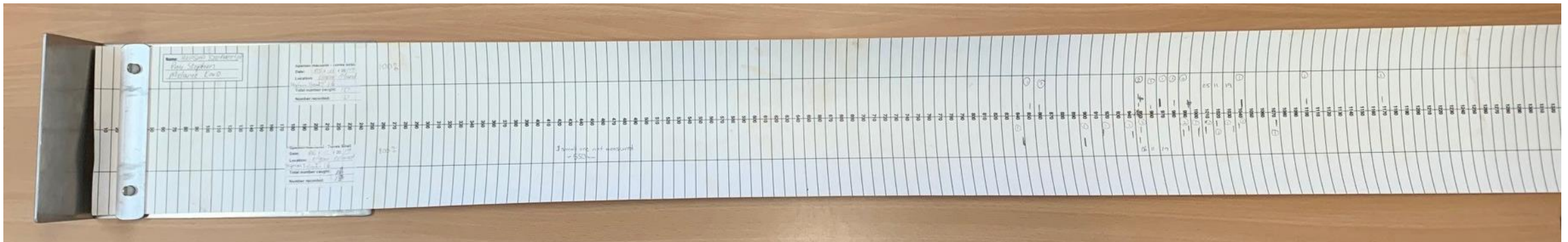
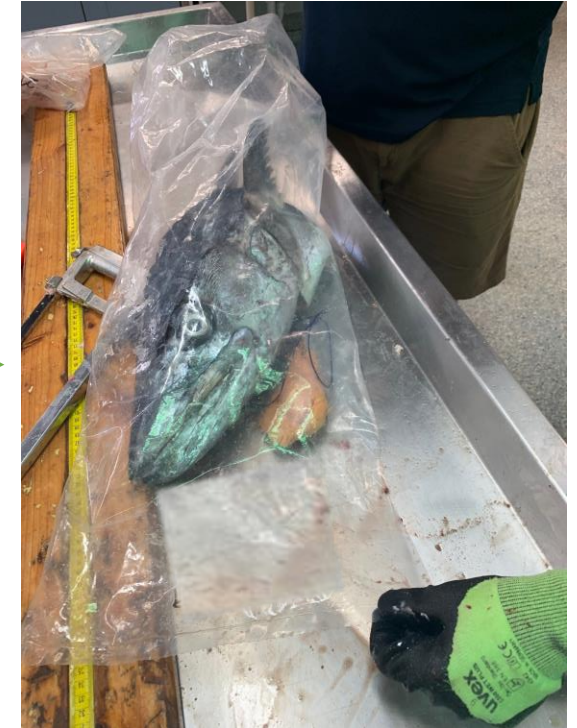
We still need your help please !!!

We still need :

- samples of fish heads or frames

AND

- lengths of fish from whole catches marked on long measuring board sheets



VIDEO

What has been achieved in the past 12 months?

Harvest Strategies Spanish mackerel and coral trout

Proposed finfish harvest strategy rules:

1. The TAC should go up and down depending on stock numbers
2. If stock goes down be cautious.
3. If the stock is increasing 'bank' fish rather than always increasing TAC.



What is the focus over the next 12 months?

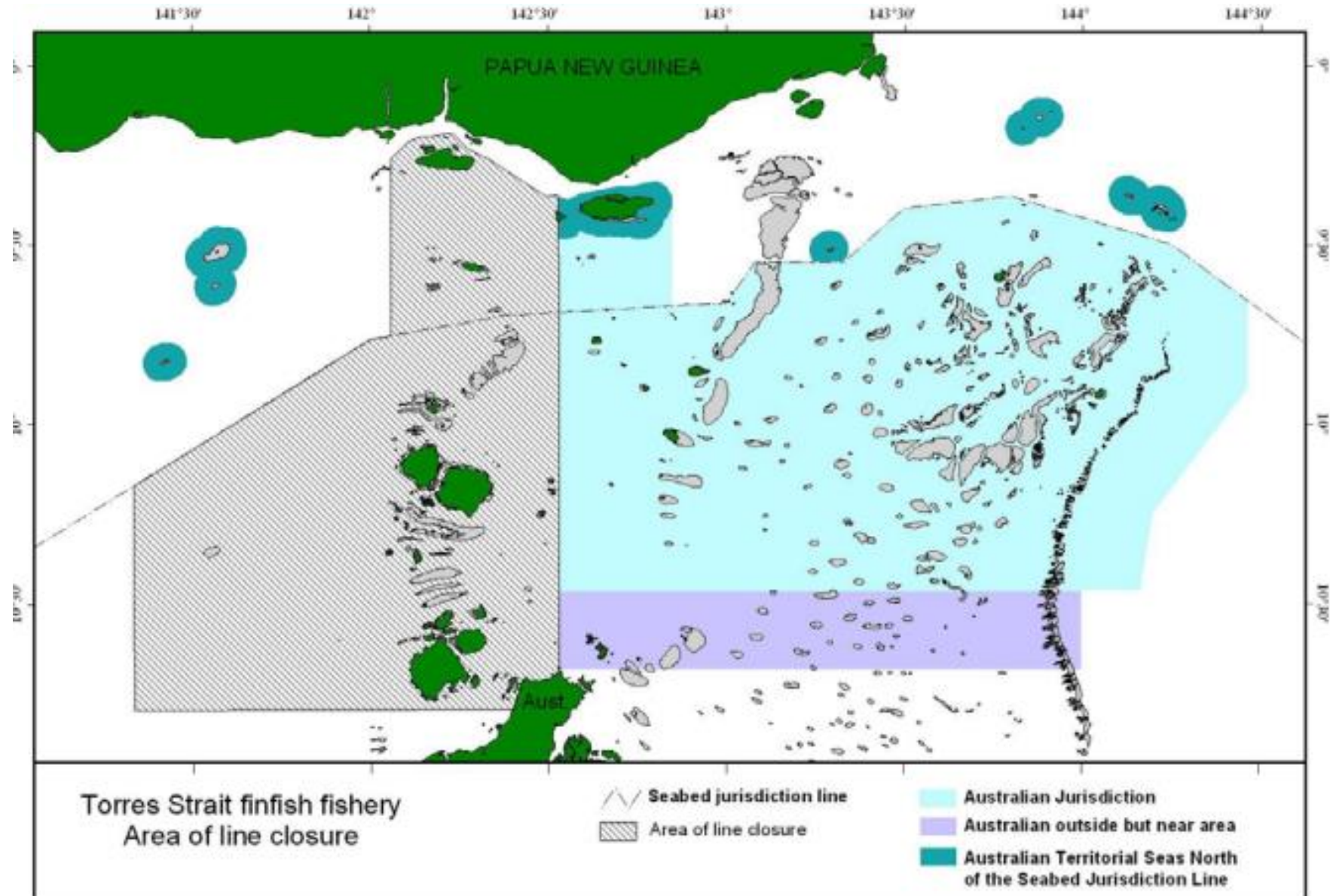
- Finalising harvest strategies
- Fish Receiver System
- Possible removal of western line closure

What do you see as the priorities for the industry?



Map of Western Line Closure

63



Hand Collectables Fishery

Hand Collectables Working Group

2019 BDM Season Total Catches (current as of 20 January 2020)

Species	TAC (tonne)	Reported Catch (tonne)	% TAC Caught
Prickly Redfish	15	10.8	72%
White Teatfish	15	1.5	10%
Curryfish species	80	13.6	28%
Other basket species - hairy blackfish - deepwater blackfish - greenfish - leopardfish - deepwater redfish		8.6	
Total	110	34.5	31%

What has been achieved in the last 12 months?

Beche-De-Mer Harvest Strategy

- Harvest Strategy implemented
- The Harvest Strategy relies on data
 - Low data
 - Middle data
 - High data
- Open/close a fishery

more data
High data
Middle data
Low data



BDM Catch Information

- Accurate and timely catch information is the big challenge for BDM
- Late reporting impacts the sustainable management of the fishery
- Half of CDRs are being submitted on time
- CDRs must be submitted to AFMA with 3 days of landing



What will be happening over the next 12 months?

Changes to Total Allowable Catch (2020 season)

Changes are only made for the species below. All others are the same

Deepwater redfish	5 tonnes TAC
Hairy blackfish	5 tonnes TAC
Greenfish	40 tonnes TAC
Common curryfish Curryfish vastus Curryfish ocellatus	60 tonne TAC

Changes to minimum size limits:

Species	Previous size limit	New size limit
Curryfish (common)	27cm	31cm
Deepwater redfish	12cm	20cm
Curryfish (vastus)	previously no limit	15cm
Golden Sandfish	18cm	22cm
Leopardfish	previously no limit	30cm



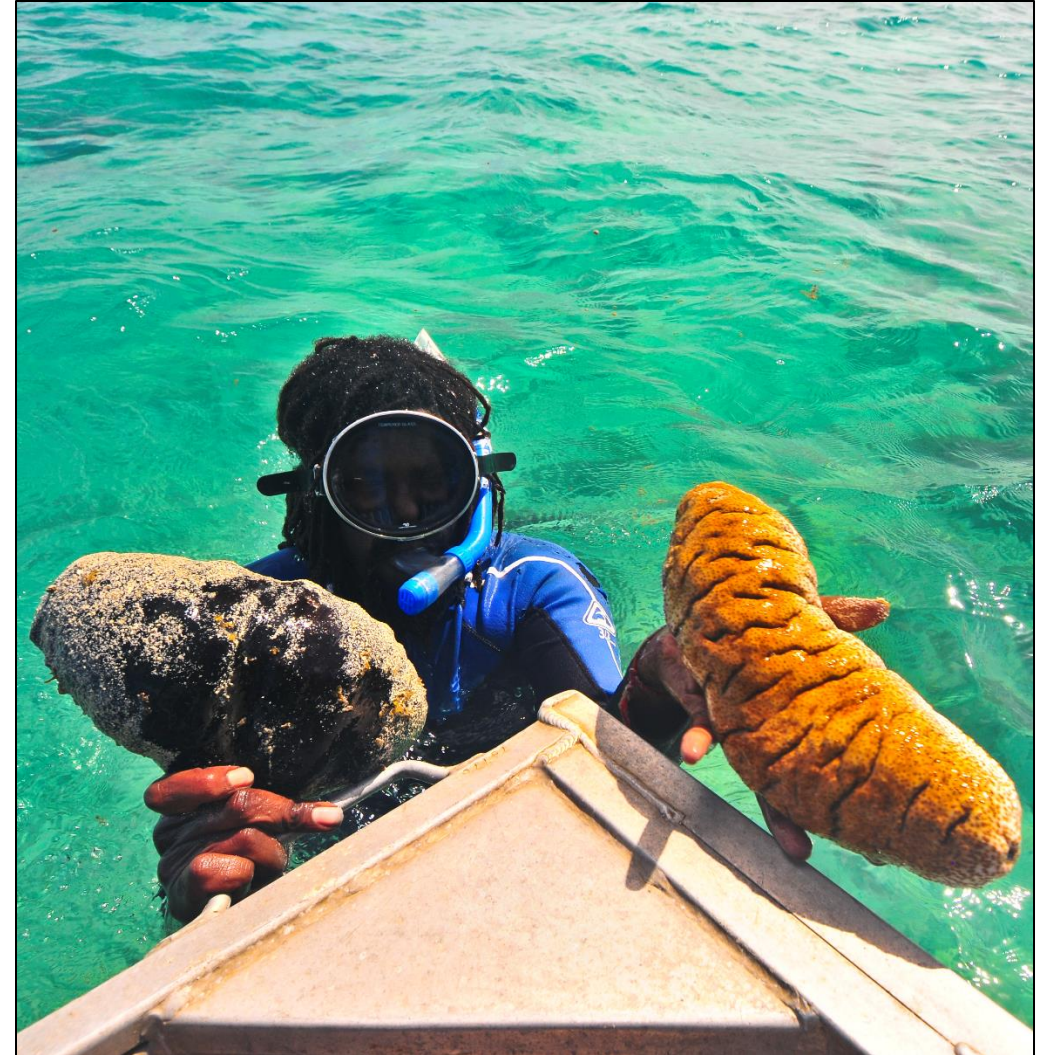
Beche-de-mer Survey

- Limited information about the BDM stock
- Focus on prickly redfish, curryfish species, black teat fish, white teatfish and surf redfish.
- Surveys completed in eastern reefs and around Ugar in December and January



Proposed Black Teatfish Trial Opening

- Proposed trial in mid 2020
- 2014-15 trials exceeded TAC and had low reporting
- Reopening will be guided by the harvest strategy
 - Step 1 – Ensure the stock is healthy
 - Step 2 – Review if monitoring and management are effective
- Future openings will be at risk if the fishery cannot be managed in a sustainable way.



Proposed Black Teatfish Trial Opening

The HCWG proposes the trial includes:

- Think of ways to reduce the work effort during the trial – reduce ‘gold rush’
- Each community to identify and manage the trial through traditional lore/law
- AFMA will not be regulating who has access
- Seek voluntary information on where BDM is caught and effort as part of the CDR's/Logbooks



Long term vision for the fishery

The Working Group is reviewing the long term vision for BDM

- What would you like to see improved?
- Do you support the possible use of hookah for targeting White Teatfish? What about for other species?

What do you see as the priorities for the industry?



Tropical Rock Lobster Fishery

- Tropical Rock Lobster Working Group (TRLWG)
- Tropical Rock Lobster Resource Assessment Group (TRLRAG)

2019 TRL Season Total Catches (current as of 20 January 2020)

TIB

Total TAC Quota	Reported Catch (tonnes)	Remaining Catch (tonnes)	% caught
327.44	259.6	67.7	79.30%

TVH

Total TAC Quota	Reported Catch (tonnes)	Remaining Catch (tonnes)	% caught
167.41	156.09	11.32	93.24%

	TIB (tonne)	TVH (tonne)
Tailed	56.18	3.41
Live	203.34	152.60
TOTAL	259.66	156.09

What has been achieved in the last 12 months?⁷⁴

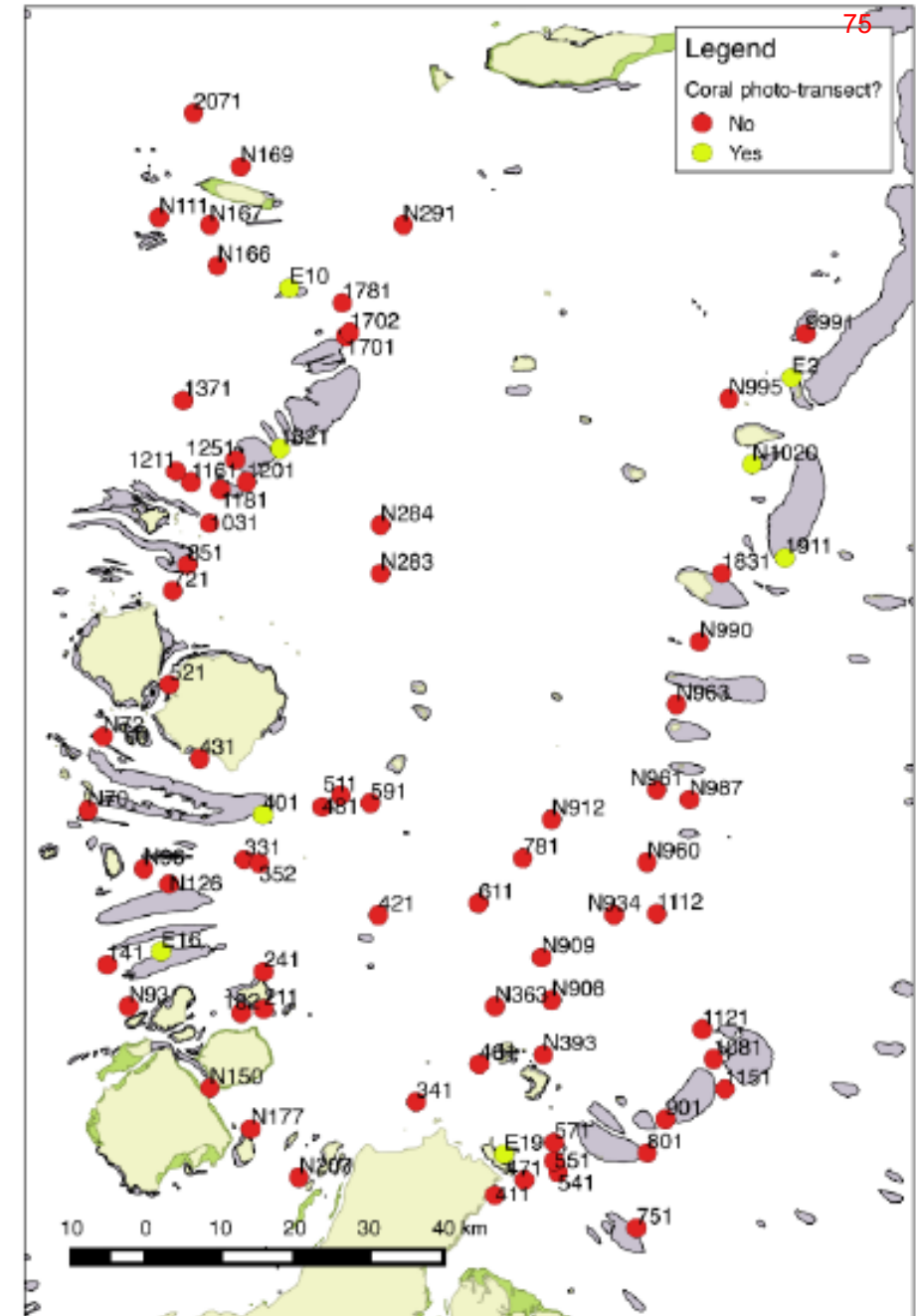
TRL Harvest Strategy:

- The PZJA finalised in November 2019
- Sets out the objectives for the fishery
- How the fishery is monitored



TRL Annual Survey

- Annual TRL survey across 74 sites – happening since 1989
- Informs seasons TAC
- Will occur in November 2019, 2020 and 2021
- Communities are notified



76
30th Sept
TRL
Fishery
closed

1st Dec
TRL Fishery
open

1st Feb
Hookah
open

October	November	December	January	February	March	April	May	June	July	August	September
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Pre-season survey

PZJA considers survey results

TRLRAG advises RBC

PZJA endorses global TAC

TRLWG advises global TAC

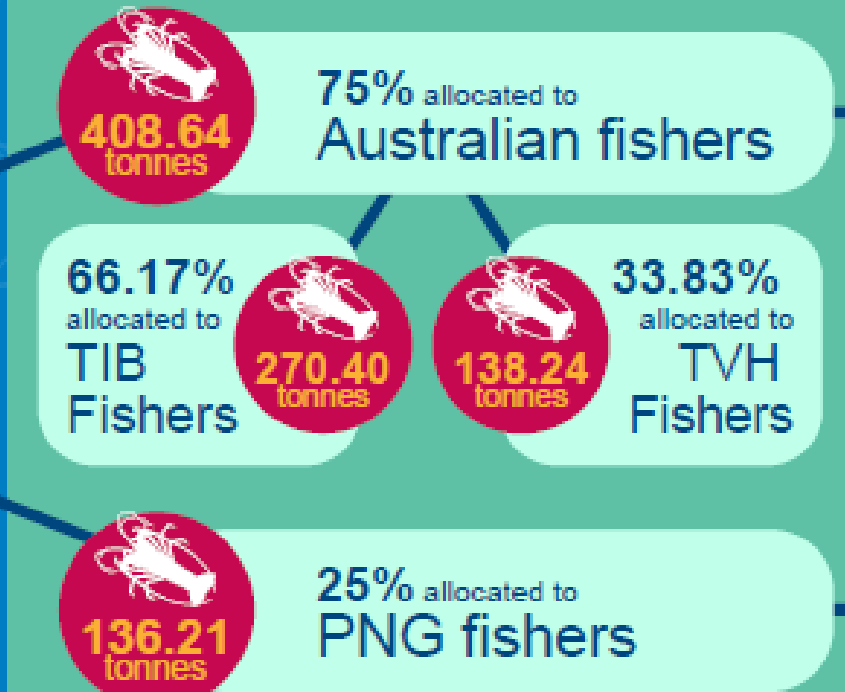
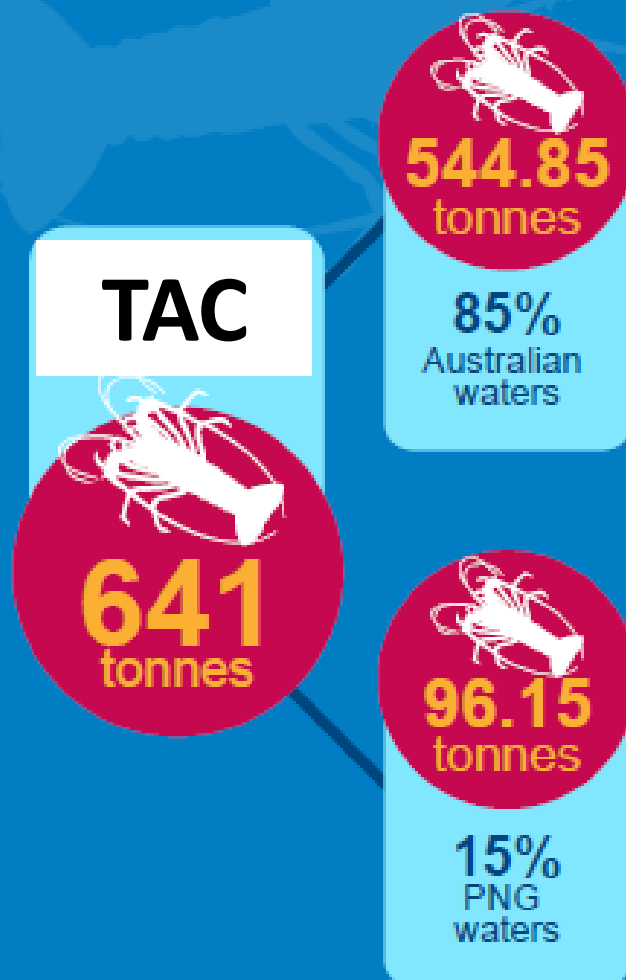
PNG & Australia agree global TAC & how it is shared

Interim Australian 200
tonne TAC set
(132 tonnes TAC for TIB
quota)

Final TAC
agreed for
Australia

2018-19 Season

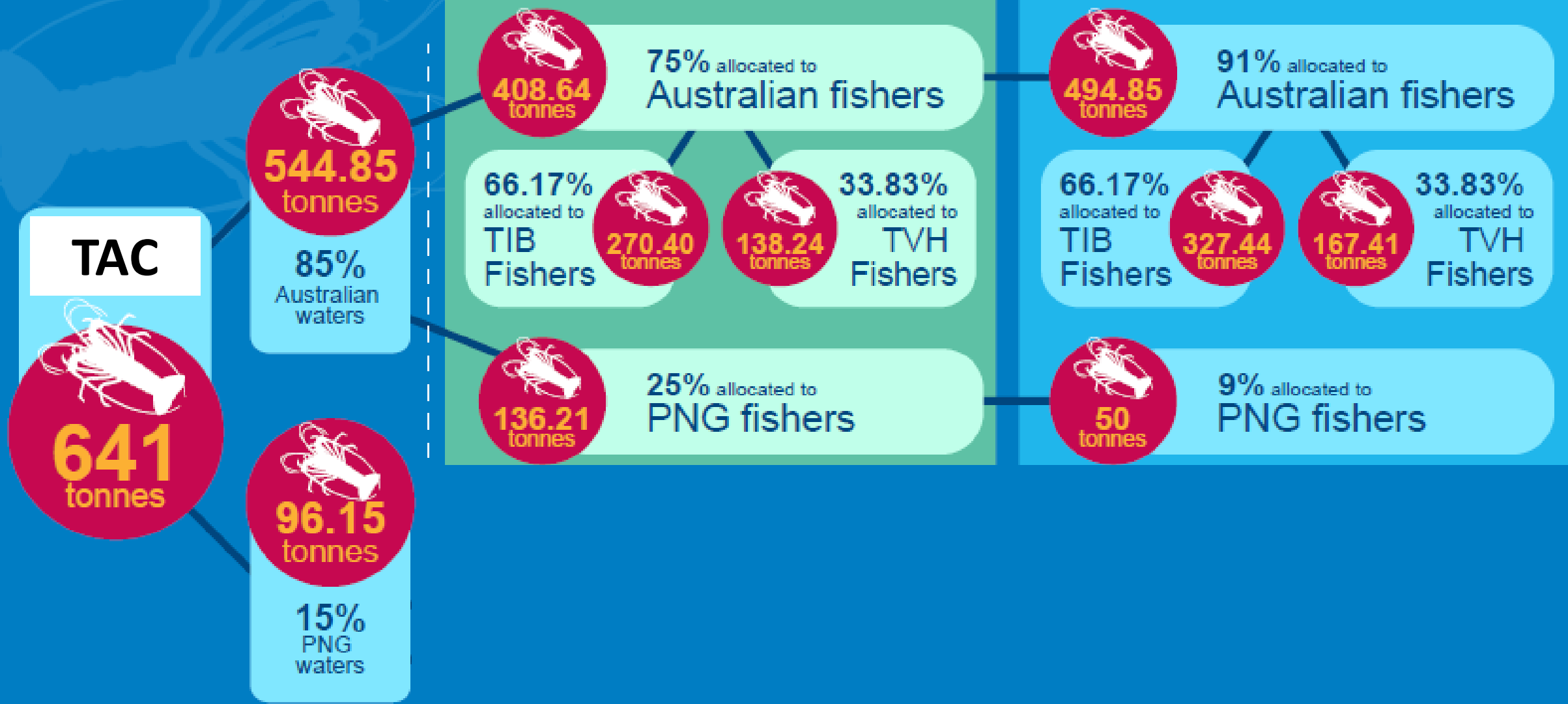
Catch Sharing with PNG



2018-19 Season

Catch Sharing with PNG

Agreement with PNG⁷⁸



What's the TRL focus over the next 12 months?

- Implementing the TRL Harvest Strategy & Management Plan
- Setting TAC for 2019-20 season

What do you see as the priorities for the industry?



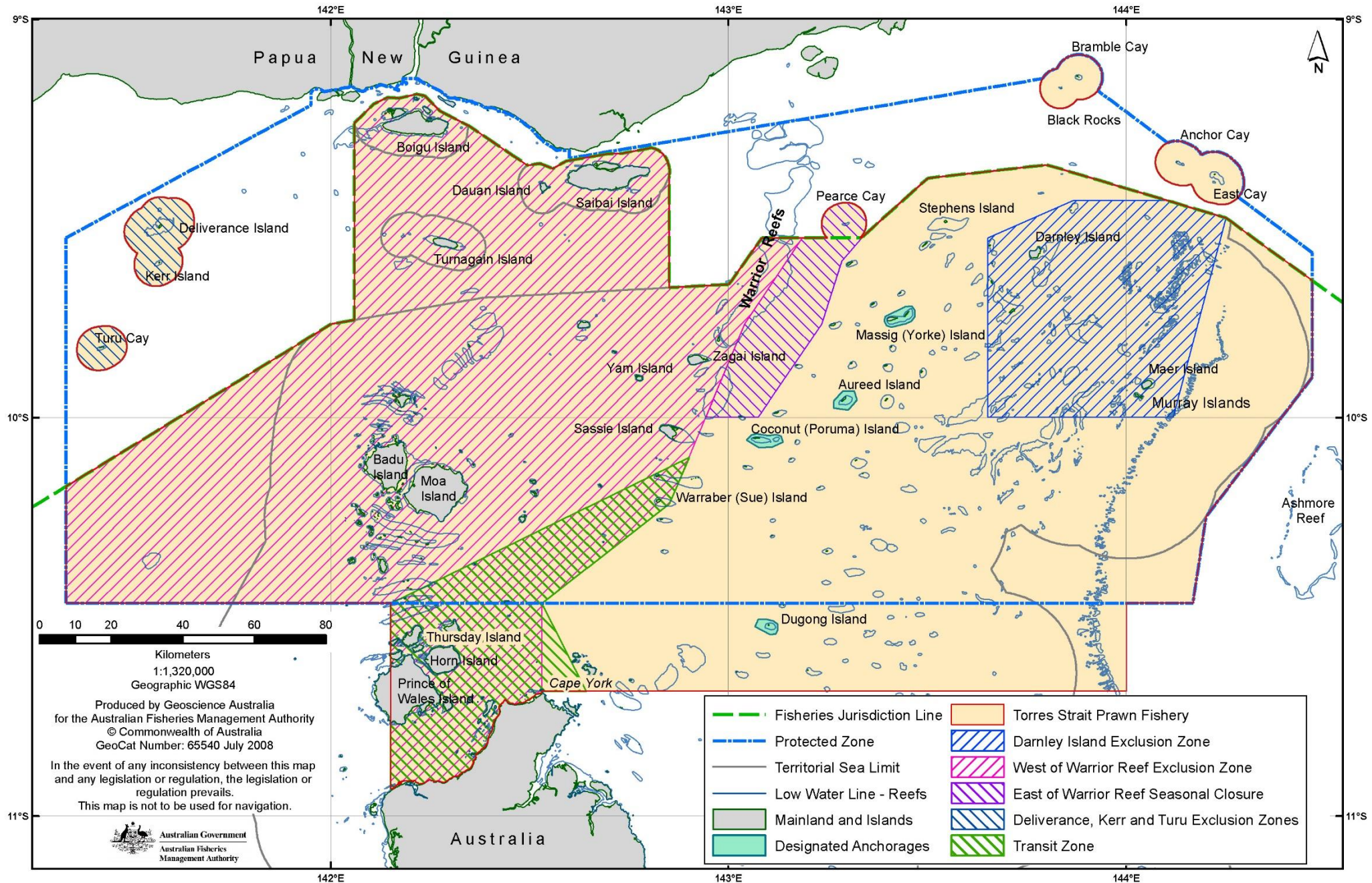
Torres Strait Prawn Fishery

- Currently low Indigenous participation in the industry
- Harvest Strategy introduced in 2011
- Traditional Inhabitant representation on the TSPMAC is from the 4 communities in the area of the Prawn fishery
- Ugar, Iama, Masig, Poruma



Torres Strait Prawn Fishery and Closures

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0 10 20 40 60 80
Kilometers
1:1,320,000
Geographic WGS84
Produced by Geoscience Australia
for the Australian Fisheries Management Authority
© Commonwealth of Australia
GeoCat Number: 65540 July 2008
In the event of any inconsistency between this map
and any legislation or regulation, the legislation or
regulation prevails.
This map is not to be used for navigation.



Current Priorities

- Revising the Harvest Strategy triggers (move from effort-based to catch-rate based triggers)
- Trialling the use of new bycatch reduction devices and improving bycatch reporting



Torres Strait Scientific Advisory Committee (TSSAC)

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What is TSSAC?

- Provide expert scientific advice to the PZJA
- Identifies research needs
- Fund research in the Torres Strait

Seven projects have been funded over the next 2-3 years



Climate Change impacts to Torres Strait Fisheries⁸⁴

- Understand climate change impacts under different scenarios
- Review what climate information exists and identify the gaps
- Report due end of 2020



Measuring non-commercial take (kai kai)

- Understand how much stock is being taken for kai kai
- Develop a best practice method to measure the kai kai take
- Review past approaches
- Report due late 2020



Developmental Permit for Training Purposes

(Training Permit) Policy

86

Training purposes - to enable non-traditional inhabitants to be engaged for training purposes on Traditional Inhabitant Boat (TIB) licensed vessels under certain conditions as per the definition of *community fishing* to provide ‘...training or advice in relation to fishing techniques’.

- PZJA agreed to develop a new policy to guide the assessment and approval process
- No new Training Permits will be granted until a policy is finalised

Draft policy is open for comment until February 29

Available on the PZJA website

<https://www.pzja.gov.au>

Hard have been sent to all TIB licence holders
Hard copies available up the front

Eso for your time

PZJA Traditional Inhabitant Members Cluster Consultations 2019/20

Meetings Summary for Hand Collectables Working Group

Traditional Inhabitant members of PZJA advisory committees recently undertook community and industry consultations to report on activities related to PZJA fisheries over the last 12 months and seek input on key issues for the management of fisheries in the Torres Strait. The meetings were led by the PZJA Traditional Inhabitant Members, with support provided by TSRA and AFMA.

The Hand Collectables Working Group (HCWG) Meeting #15 recommended the PZJA Traditional Inhabitant Members use these meetings as an opportunity to seek industry and community feedback on the proposed black teatfish trial opening and the current prohibition on hookah.

The meetings were delivered as outlined in the Table 1 below:

Table 1. PZJA Traditional Inhabitant Members consultation schedule

Community	Date	Presenters
Erub	16 October 2019	Michael Passi (HC), Les Pitt (TRL), John Tabo (Finfish)
Mer	17 October 2019	Support: Liz McCrudden (TSRA), Neville Johnston (TSRA), Georgia Langdon (AFMA)
Ugar	5 February 2020	Michael Passi (BDM), Les Pitt (TRL), John Tabo (Finfish) Rocky Stephen (SAC and Finfish), William Stephen (PMAC) Support: Neville Johnston (TSRA)
Boigu	22 October 2019	Maluwap Nona (HC, SAC), Aaron Tom (TRL), Tenny Elisala (Finfish)
Saibai	23 October 2019	
Dauan	24 October 2019	Support: Liz McCrudden (TSRA), Natalie Couchman (AFMA)
Masig	5 November 2019	Hilda Mosby (Finfish), Gavin Mosby (SAC, PMAC), James Billy (TRL), Patrick Bonner (HC),
Iama	6 November 2019	Paul Lowatta (Finfish) – Masig only
Pourma	7 November 2019	Mark David (TRL) – Iama only Francis Pearson (PMAC) -Poruma only
Warraber	8 November 2019	Support: Liz McCrudden (TSRA), Andrew Trappett (AFMA)
Badu	22 November 2019	James Ahmat (TRL), Frank Loban (Finfish, HC, SAC)
Mabuiag	23 November 2019	
Kubin	25 November 2019	Support: Liz McCrudden (TSRA), Neville Johnston (TSRA), Georgia Langdon (AFMA)
St Pauls	26 November 2019	
Thursday Island	21 January 2020	Patrick Mills (TRL, SAC), Tony Salam (HC), Harry Nona (Finfish, TRL). Support: Liz McCrudden (TSRA), Neville Johnston (TSRA), Georgia Langdon (AFMA)

Table 2 below provides an overview of the key discussion points, feedback and recommendations relevant to the HCWG from all consultations.

Table 2. Summary of discussions – Beche-de-mer fishery – Cluster visits 2019/20

Kemer Kemer Meriam - 15-17 October 2019 and 5 February 2020		
Presenter – Michael Passi		
Black teatfish proposed trial opening	Hookah for harvesting white teatfish	Other discussion
<ul style="list-style-type: none"> • Mer and Erub indicated support for the black teatfish trial opening to be driven using a cultural lore framework. • PBC and councils to be leaders in the process • AFMA and the TSRA should seek engagement and input from GBK and Malu Lamar • AFMA will not regulate access, rather the PBC's will take a leadership role in facilitating discussions and access arrangements • Meeting participants generally noted that if black teatfish is opened, everyone is going to fish it – what does this mean for the full time slug operators? There needs to be a decision about who can access it, and people need to respect that. It was agreed the decision needs to be made by the communities, and not by AFMA/TSRA. • Meeting participants at Erub noted community concerned about going over the black teatfish limit again and also with increased catches of giant clams. There are claims that last time lots of people came over from the West and over-harvested giant clams during the black teatfish opening. 	<ul style="list-style-type: none"> • At Mer it was suggested that if a trial for hookah to target white teatfish was allowed then all other BDM species should be closed. • Generally the use of hookah for white teatfish was not supported by Ugar due to fear of over fishing and targeting other species. 	<ul style="list-style-type: none"> • Increased investment and support for fishers is needed to improve the value of catch – e.g. drying facilities on islands for BDM. • Suggestion to have one central fish receiver in each community. AFMA agreed that is a good idea that communities can arrange amongst themselves, as long as the product is landed, weighed and recorded to a licenced fish receiver as per licence conditions.

Gudumalulgal – 21-24 October 2019		
Presenter – Maluwap Nona		
Black teatfish proposed trial opening	Hookah for harvesting white teatfish	Other discussion
<ul style="list-style-type: none"> Across each community there was general support for the black teatfish trial opening to be run through traditional law/lore. Noting that fishers have the right to access any part of a fishery under the current TIB licence conditions. There is no black teatfish habitat in Gudumalulgal waters so there is some concern that access to the trial will be limited for Gudumalulgal industry members. Native title bodies must be involved in the trial opening. 	<ul style="list-style-type: none"> Broadly Traditional Owners present at the Gudumalulgal meetings recommend opening hookah to access white teatfish <i>only</i>. Other species cannot be taken by hookah. This is an important economic opportunity which can be managed under the TAC and compliance measures. Ensure white teatfish is included in the BDM survey. 	<ul style="list-style-type: none"> Suggestion the PZJA should review options for spatial opening and closures – like rotational grazing to increase the sustainability of the fishery. There was discussion regarding the current Class C licence conditions. It is recommended these should be reviewed to enable primary vessels to tow other TIB licence holders to finishing grounds and provide resources.

Kulkaigal – 4-8 November 2019		
Presenter – Patrick Bonner		
Black teatfish proposed trial opening	Hookah for harvesting white teatfish	Other discussion
<ul style="list-style-type: none"> Masig industry members suggested the black teatfish trial opening should occur in February as it aligns with the opening of the TRL hookah season. Concerns were raised regarding the spawning time and the proposed mid-year opening. Noted it was important for communities, managers and scientists to know timing of spawning for all species. There is a strong need to feed this information back to communities - ground truth the scientific understanding. 	<ul style="list-style-type: none"> Masig meeting participants provided mixed support for opening hookah for white teatfish <ul style="list-style-type: none"> It was noted that if white teatfish was opened for hookah access then the fishermen would not be able to target or collect any other species (this is not maximising a fisherman's effort in the fishery) Compliance was recognised as a significant challenge 	<ul style="list-style-type: none"> Recommendation for AFMA to develop online/app catch reporting tool. Recommendation should be made to PZJA, Commonwealth & State Ministers and TSRA for the regulation of the fisheries to acknowledge traditional lore. The collection of spatial data in logbooks should become compulsory for all fisheries. The PZJA to support training opportunities on island for fisheries to develop skills in processing, harvesting and transporting and local industry champions could be supported to train fisheries across Kulkaigal islands.

<ul style="list-style-type: none"> • Recommendation for CSIRO to provide spawning time for each BDM species • It was noted most communities in the east have adjacent black teatfish habitat (Masig eastwards). • Poruma, Iama and Warraber agreed on the following recommendations for the Black teatfish trial opening: <ul style="list-style-type: none"> ○ The trial should only be opened for the five communities where black teatfish is abundant – Ugar, Erub, Mer, Masig and Poruma ○ The access to the trial must be led by PBC and community leaders <ul style="list-style-type: none"> ▪ PBCs should provide letters of support for HCWG members to take to the next meeting to ensure PZJA members are speaking with the correct authority ○ Malu Lamar and GBK must be involved from the start of the trial development ○ Traditional lore needs to be recognised in the policy/management plan for the trial opening • The trial opening should take into consideration the spawning time of BDM 	<ul style="list-style-type: none"> ○ The majority from all clusters need to be in support for hookah to be allowed ○ A full management plan would need to be driven by PBC and fishermen (not just those targeting white teatfish). ○ It was noted outside the meeting that support for hookah varies across Masig industry members • At Poruma, Iama and Warraber strong advice received that hookah should not be allowed for the take of any BDM species, including white teatfish, due to the potential impacts on the sustainability of the fishery and issues in regulation/compliance. • Recommendation that TSRA should support someone from Central islands to go to Masig Island to inform the industry on what the challenges and impacts are of having both hookah and free divers operating in the same region. 	<ul style="list-style-type: none"> • Kulkalgal industry should have employment opportunities during the BDM survey on Warrior Reef and hold community information sessions prior to the survey to gain insight from industry. • Kulkalgal research must utilise local knowledge and engage local people before the research. • The meeting participants at Iama, Poruma and Warraber agreed on the proposed development of a Community Management Plan as a priority: <ul style="list-style-type: none"> ○ Now the TRL and BDM harvest strategies are in place, it is the right time to develop a community management plan that recognises cultural protocols. ○ The TSRA should prioritise their development to work alongside the current PZJA management plans and harvest strategies ○ The community management plans should provide guidance on: <ul style="list-style-type: none"> ▪ Spatial closures ▪ Rotational reef harvesting ▪ Depth regulations ▪ Tide regulations ▪ Cultural practices ▪ Anchorage regulations on reefs and in cultural fishing sites ○ Each Nation should create their own community management plan suitable for their cultural protocols, reefs and industry
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		<ul style="list-style-type: none"> • They should be collaborative between the PBCs, TSRA and the PZJA
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Maluiligal – 21-26 November 2019		
Presenter – Frank Loban		
Black teatfish proposed trial opening	Hookah for harvesting white teatfish	Other discussion
<ul style="list-style-type: none"> • Meeting participants at Badu indicated the black teatfish access should be through partnerships with PBCs. However, concern was raised with having to potentially ask eastern communities for permission, where the majority of the black teatfish habitat is located. It was suggested perhaps permission should be reciprocal for kaiar for eastern fishers coming to the west. • At St Pauls and Kubin there was limited support for the proposed black teatfish opening using traditional lore to regulate access. Attendees noted that if fishers from the east want come work kaiar they don't need permission, so why should western fishers need to seek permission. Even though that is the respectable thing to do, it needs to work both ways. Attendees agreed that the proposal needs more discussion on that matter with community elders and industry outside of this meeting. • At Mabuiag meeting participants indicated the black teatfish access should be through partnerships through PBCs. There was general consensus that traditional lore should be followed, noting there was an 	<ul style="list-style-type: none"> • There was limited discussion regarding the use of hookah for white teatfish at Badu. One meeting participant indicated support, however a broad consensus was not voiced. • At St Pauls and Kubin there was general support for the use of hookah to collect white teatfish was mixed. This issue requires more discussion with industry to fully understand the benefits and risks. • Mabuiag indicated support for the use of hookah to collect white teatfish. It was strongly expressed that hookah should not be used for other species, which presents compliance issues which would need to be worked through. 	<ul style="list-style-type: none"> • The long term vision of the BDM fishery must consider the following: <ul style="list-style-type: none"> ○ Risk of overfishing (citing international examples). ○ Review the option of having season opening and closures for specific species. ○ Review options of implementing quota systems in the future. • The collection of spatial data in logbooks becoming compulsory for all fisheries, however must ensure confidentiality and privacy of fishing locations. • CSIRO should hold a meeting on Badu in the future to discuss the science and survey with fishers to increase understanding. • Discussions on minimum size limits (MSL) – compliance. AFMA explained how the MSL are measured but above all (i.e. undisturbed from tip to tip), the limits are in place as an added layer of protection to ensure the animals can reach a size to breed first and that AFMA will be making waterproof rulers available when new MSL come in to effect.

<p>understanding that permission would need to be sought from eastern communities where black teatfish is present. It was acknowledged that there is a lot of detail to be worked through, but this approach at a high level was supported.</p>		<ul style="list-style-type: none"> A pilot project on re-seeding of sandfish at Ugar was discussed, including the potential for expansion in the future.
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Kaiwalagal – 21 January 2020		
Presenter – Maluwap Nona (as proxy for Tony Salam)		
Black teatfish proposed trial opening	Hookah for harvesting white teatfish	Other discussion
<ul style="list-style-type: none"> General support from the Kaiwalagal meeting participants for cultural lore to be used in the trial black teatfish opening to guide who has access to the trial at certain times. It was suggested the timing of the opening should take into consideration limiting effort - for example open the trial during a hookah opening when a number of fishers will be targeting TRL. Suggestion for the inclusion of triggers during the opening, which would control who can access the trial. For example when 10% of the TAC is remaining only local fishers to those waters should have access. Fisheries from other areas should leave. Recommendation for a BDM industry meeting to discuss the strategic management plan and individual community needs, including trial openings. 	<ul style="list-style-type: none"> General support from meeting participants for the use of hookah for white teatfish noting that they were mostly not BDM fishers and would take the advice from those who are on the most appropriate management arrangements. 	<ul style="list-style-type: none"> Traditional spatial closures are currently encouraged by fishers to improve the sustainable management of the fishery. Surveys to open a fishery must involve and take direction from Traditional Owners. They have a wealth of industry and environmental knowledge which is beneficial to scientific surveys. The involvement of local industry and community provides training opportunities. Advice from TIB Fisherman that the PZJA agencies seek advice from fulltime operators in the industry regarding management arrangements and plans for the BDM fishery going forward.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
WORKING GROUP UPDATES Scientific members	Agenda Item 2.2 For NOTING

RECOMMENDATIONS

1. That the Working Group:
 - a. **NOTE** any updates provided by scientific members and observers;
 - b. **DISCUSS** any strategic issues, including economic trends, affecting the management and development of Torres Strait Hand Collectable fisheries.

BACKGROUND

2. Verbal reports will be sought from scientific members and observers under this item.
3. Scientific members are asked to contribute advice on any broader strategic research projects or issues that may be of interest to the Torres Strait.
4. It is important that the Working Group develops a common understanding of any relevant matters within adjacent jurisdictions and what issues if any, are having the greatest impact on industry and the management of fisheries. Such understanding will ensure proceedings of the Working Group are focused and may more effectively address each issue.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
WORKING GROUP UPDATES Government Agencies	Agenda Item 2.3 FOR NOTING

RECOMMENDATIONS

1. That the Working Group:
 - a. **NOTE** the updates provided by AFMA and Fisheries Queensland below; and
 - b. **NOTE** a verbal update will be provided by the TSRA member.

AFMA UPDATE

Beche-de-mer Harvest Strategy

2. At their meeting on 19 November 2019, the PZJA agreed to adopt the final Beche-de-mer Harvest Strategy which came in to effect on 1 January 2020. Changes to TACs for individual species and species baskets, as well as agreed conversion ratios were implemented via licence conditions.
3. All TIB licence holders were notified of the adoption of the harvest strategy and associated TAC and conversion ratio changes via SMS and email on 29 November 2019. A letter detailing the changes was sent to all licence holders on 16 December 2019 (**Attachment 2.3a**).
4. Changes to minimum size limits for Beche-de-mer as prescribed in the final harvest strategy will be implemented for the 2021 fishing season, pending the revision of the *Fisheries Management Instrument No. 15* (FMI 15).
5. AFMA continues to work on the revision of FMI 15 to enable the full implementation of the BDM HS in time for the 2021 fishing season.

Beche-de-mer species listed under CITES Appendix II

6. On 25 August 2019, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Conference of the Parties (CoP18) agreed to adopt the proposal to list teatfish black teatfish *H. (Microthele) nobilis*, *H. (Microthele) whitmaei*) and white teatfish (*Holothuria (Microthele) fuscogilva*, under CITES Appendix II.
7. Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilisation incompatible with their survival.
8. The proposal, put forward by Seychelles, was adopted with a 12 month implementation delay, meaning the listing will come into effect on 28 August 2020.
9. Species listed on Appendix II of CITES may still be traded internationally provided the trade, or a specified level of trade, has been determined to be non-detrimental to the survival of the species in the wild.
10. The Department of Environment and Energy (DoEE) is responsible for assessing the sustainability of international trade in Australian species listed on Appendix II and undertakes this assessment based on the information provided to it by the exporting proponent.

11. The Commonwealth (AFMA), Queensland, Northern Territory and Western Australia have agreed to support a national approach being funded by the Queensland Sea Cucumber Industry Association (the Association) in seeking a non-detriment finding (NDF) for both black teatfish and white teatfish. Fishwell Consulting has been engaged by the Association to collate all required information for the DoEE's consideration of a non-detriment finding which must be submitted to the Department by early April 2020. AFMA will support the process for the Torres Strait and Coral Sea fisheries.
12. Once the take for trade is considered to be sustainable (i.e. a non-detriment finding is approved), trade is generally regulated through permits authorising export of the specimen and exporters will require a permit from the DOEE.

Wildlife Trade Operation (WTO) Approval under the EPBC Act 1999

13. As of 20 December 2017, the Torres Strait Beche-de-mer Fishery was declared by the then Assistant Minister for Agriculture and Water Resources, Senator the Hon Anne Ruston as approved WTO under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) until 18 December 2020.
14. The Trochus Fishery was declared to be exempt from the export requirements of the EPBC Act and product derived from the fishery be included on the List of Exempt Native Specimens (LENS) until 9 October 2026.
15. Approval under the EPBC Act is:
 - a. necessary to legally export commercially wild caught seafood from Australia; and
 - b. subject to conditions which require ongoing work by the PZJA.
16. A summary of the conditions imposed on the Torres Strait BDM Fishery and an update on the relevant management actions is outlined in **Attachment 2.3b**. No conditions were imposed on the Torres Strait Trochus Fishery on the basis that the fishery is inactive. Any activity within the Trochus Fishery will need to be reported to the Department of the Environment and Energy (DoEE).
17. AFMA, on behalf of industry, will commence preparing a new application for a new Torres Strait Beche-de-mer Fishery WTO approval in early 2020 ahead of the current approval expiring on 18 December 2020.

ABARES Fishery Status Reports

18. Each year, the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) compiles fishery status reports which provide an independent assessment of the biological status of fish stocks and the economic status of fisheries managed, or jointly managed, by the Australian Government (Commonwealth fisheries). The most recent ABARES Fishery Status Report was released in September 2019 and summarises the performance of these fisheries in 2018 and over time, against the requirements of fisheries legislation and policy.
19. In the 2019 report, all BDM species are classified as not being subject to overfishing, with Sandfish being the only species in the Torres Strait that continues to be classified as overfished. The fishing mortality and stock status for two species taken in 2018 remains uncertain. The status of the Torres Strait Beche-de-mer and Trochus Fisheries is summarised in the table below.

Status	2017		2018		Comments
Biological status	Fishing mortality	Biomass	Fishing mortality	Biomass	
Black teatfish (<i>Holothuria whitmaei</i>)					No catch in 2018. Recent survey indicates a recovering stock.
Prickly redfish (<i>Thelenota ananas</i>)					Catch is below TAC. Survey indicates relatively stable densities.
Sandfish (<i>Holothuria scabra</i>)					No catch in 2018. Most recent full survey (2009) indicated that stock was overfished.
White teatfish (<i>Holothuria fuscogilva</i>)					Catch is below TAC. Survey indicates relatively stable densities.
Other sea cucumbers (up to 18 species)					Uncertain biomass and fishing mortality status for at least two species taken in 2018.
Trochus (<i>Trochus niloticus</i>)					Minimal catch in 2018. Uncertain biomass status.
Economic status	Estimates of NER and gross value of production are unavailable. A low level of catch in the TSBDMF indicates low NER. Increased catch in 2018 likely caused some improvement in economic performance in the fishery, noting that social objectives aimed at increasing opportunities for Traditional Inhabitants and encouraging participation in the fishery are also important for this fishery. Little to no catch has been recorded in the TSTF since 2010, suggesting fishers have a low incentive to fish in this fishery.				

Notes: **NER** Net economic returns. **TAC** Total allowable catch. **TSBDMF** Torres Strait Bêche-de-mer and Trochus fishery.

Fishing mortality ■ Not subject to overfishing ■ Subject to overfishing ■ Uncertain
Biomass ■ Not overfished ■ Overfished ■ Uncertain

20. The reports assess all key commercial species from fisheries managed, solely or jointly, by the Australian Government and examines the broader impact of fisheries on the environment, including on non-target species. ABARES fishery status reports can be accessed on the ABARES website at: <https://www.agriculture.gov.au/abares/research-topics/fisheries/fishery-status/torres-strait-beche-de-mer-trochus-fisheries>

Legislative Amendments

21. As per previous updates, AFMA is continuing to progress draft amendments to the Torres Strait Fisheries Act 1984 and Torres Strait Fisheries Regulations 1985 as resources and

priorities permit. The purpose of the amendments is to provide improvements to the efficiency and effectiveness of fisheries administration in the Torres Strait. In the past 12 months, AFMA has experienced delays to the project due to the Federal Election, competing Australian Government legislative priorities and limited internal resources.

22. Details of the proposed amendments have been provided in previous meeting papers. A summary of the proposed amendments is provided at **Attachment 2.3c**.

Independent review of the EPBC Act

23. The second independent review of the EPBC Act has been commissioned as part of a requirement that the EPBC Act is reviewed at least once every ten years. The review is being undertaken by Professor Graeme Samuel. To support the review a discussion paper has been developed and released for public comment outlining 26 questions for stakeholders to answer to inform the review. Submissions on this review are due by 14 February 2020 ahead of exploration of reform options and a draft report being produced by June 2020. More information is available at: www.epbcactreview.environment.gov.au

QDAF UPDATE

24. On 1 September 2019, QDAF introduced a range of changes to their fisheries regulations. Key changes for harvest fisheries included:

- a. Aligning the southern and northern recreational possession limit for TRL to 5 for all Queensland waters.
- b. White teatfish are now a no-take species for recreational fishers.
- c. Sea cucumber and tropical rock lobster are 2 of 9 identified priority black-market species and therefore have a two times possession limit enforced for boats.
- d. Vessel tracking requirements will apply to all commercial fishing vessels (primaries & tenders) from 1 January 2020. Harvest symbols included are A1, A2, B1, D, J1 and R.
- e. Land based commercial harvest fishing licence operations must display a sign.

25. Further details are provided in **Attachment 2.3d** and on the QDAF website at <https://www.daf.qld.gov.au/business-priorities/fisheries/sustainable/sustainable-fisheries-strategy/fisheries-reforms>

26. A second round of regulatory changes are proposed to be implemented in late 2019. Proposed changes that will affect the Queensland East Coast TRL Fishery include:

- a. Change of commercial harvest fishing licences to commercial fishing boat licences.
- b. Requirement for 1 boat mark to be allocated to one commercial fishing boat licence.
- c. Replace existing nominee requirements with a commercial fisher licence (CFL to be issued at no cost for the first 12 months).
- d. Amend the payment of commercial fishing fees from 'in arrears' to 'in advance'.
- e. Primary vessel length = Up to 25m.
- f. Tender vessel length = Up to 10m.
- g. Maximum number of tender vessels to use = Up to 8.
- h. Fisheries legislation to remove provisions regarding tender attendance rules to primary vessels and therefore default to AMSA rules.

- i. Separation of fishing authority and quota allocations.
- j. Standardisation of quota reporting requirements for all quota managed fisheries.



Australian Government

Australian Fisheries Management Authority

File reference: DOC19/33208

12 December 2019

Dear Torres Strait Beche-de-mer Fishery Licence Holder

Management Arrangements for 2020 Beche-de-mer Fishing Season

This letter details some key management arrangements that will apply to the next fishing season of the Torres Strait Beche-de-mer Fishery (BDM Fishery) which will commence on 1 January 2020¹.

Harvest Strategy for the BDM Fishery

The BDM Harvest Strategy (HS) was adopted by the Protected Zone Joint Authority (PZJA) at their meeting on 19 November 2019 and will come in to effect on 1 January 2020. A harvest strategy is a framework for making evidence-based, precautionary and transparent decisions about the amount of fish that can be caught in a fishing season. The BDM HS sets out the objectives for the fishery, and how the fishery is monitored and assessed. The BDM HS also sets out clear rules to guide how to re-open a closed species for fishing if enough information is available. Applying the BDM HS will provide greater certainty to fishers, traditional owners, communities, scientists and managers about how the fishery will be managed. A copy of the BDM HS is now available on the [PZJA website](#).

Total Allowable Catch (TAC) limits

Implementation of the harvest strategy requires changes to existing beche-de-mer species Total Allowable Catch (TAC) limits. Consistent with the PZJA decision, I, as the PZJA licensing delegate have varied the conditions imposed on your Traditional Inhabitant Boat (TIB) licence to implement the new TACs (**Table 1, Enclosure A**) effective as of 1 January 2020. Please note that fishing for sandfish, black teatfish and surf redfish remains prohibited.

Weight Conversion Ratios

The new BDM harvest strategy also sets out agreed weight conversion ratios that will be applied to convert reported catches of processed BDM product back to a standard unit of gutted wet weight. These conversion ratios are used to monitor reported catches against TACs. The agreed conversion ratios will also be included on TIB licence conditions for the 2020 fishing season and are summarised in **Table 2, Enclosure A**.

¹ The BDM fishing season runs from 1 January to 31 December.

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BDM Fishery Licence holders are reminded that under the mandatory Fish Receiver System, it is a condition of your TIB licence that all beche-de-mer taken under your licence must be landed to the holder of a fish receiver licence.

AFMA will provide regular catch reports detailing BDM fishery catches throughout the season. These reports will be made available on the PZJA website at www.pzja.gov.au and also sent to BDM licence holders by email or SMS where licence holders have these details registered with AFMA. Licence holders can also contact the AFMA Thursday Island office, through the contacts provided at the end of this letter to seek an update on catches.

Should you have any further questions on the matters covered in this letter, please contact the AFMA Thursday Island office on 07 4069 1990 or FisheriesTI@afma.gov.au. If you would also like to receive future management updates by email or SMS please contact the AFMA Thursday Island office to update your contact details.

Yours sincerely



Andrew Powell
Acting Senior Manager, Fisheries Services
PZJA Delegate, Australian Fisheries Management Authority

Enclosures

A Summary of TAC changes and agreed weight conversion ratios

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Enclosure A

Table 1. Summary of changes to Total Allowable Catch (TAC) limits

Species/Basket	Existing TAC	New TAC in 2020
Prickly redfish	15 tonnes	15 tonnes
White teatfish	15 tonnes	15 tonnes
Deepwater redfish	Part of 80 tonne basket TAC	5 tonnes
Hairy blackfish	Part of 80 tonne basket TAC	5 tonnes
Greenfish	Part of 80 tonne basket TAC	40 tonnes
Curryfish species (common, <i>vastus</i> and <i>occelatus</i>)	Part of 80 tonne basket TAC	60 tonnes combined basket TAC
Black teatfish	0 tonnes	0 tonnes (CLOSED)
Surf redfish	0 tonnes	0 tonnes (CLOSED)
Sandfish	0 tonnes	0 tonnes (CLOSED)
All other BDM species	Part of 80 tonne basket TAC	50 tonnes combined basket TAC

Table 2. Agreed weight conversion ratios

Common Name	Species Name	Live to Gutted	Salted to Gutted	Boiled & Salted to Gutted	Dried to Gutted
Black Teatfish	<i>Holothuria whitmaei</i>	0.677	1.213	1.213	5.649
Brown sandfish	<i>Bohadschia vitiensis</i>	0.735	1.199	1.199	6.337
Burrowing blackfish	<i>Actinopyga spinea</i>	0.544	1.449	1.449	7.424
Curryfish (common)	<i>Stichopus herrmanni</i>	0.651	1.706	1.706	8.772
Curryfish (vastus)	<i>Stichopus vastus</i>	0.894	1.706	1.706	11.364
Deepwater blackfish	<i>Actinopyga palauensis</i>	0.818	1.374	1.374	5.263
Deepwater redfish	<i>Actinopyga echinites</i>	0.692	1.706	1.382	6.579
Elephants Trunkfish	<i>Holothuria fuscopunctata</i>	0.519	1.097	1.097	4.132
Golden sandfish	<i>Holothuria lessoni</i>	0.645	1.226	1.226	6.588
Greenfish	<i>Stichopus chloronatus</i>	0.894	1.706	1.706	11.364
Hairy blackfish	<i>Actinopyga miliaris</i>	0.48	1.037	1.037	4.785
Leopardfish	<i>Bohadschia argus</i>	0.665	1.286	1.286	5.841
Lollyfish	<i>Holothuria atra</i>	0.436	1.706	1.706	6.289
Prickly redfish	<i>Thelenota ananas</i>	0.667	1.358	1.358	11.364
Sandfish	<i>Holothuria scabra</i>	0.496	1.319	1.319	10.638
Stonefish	<i>Actinopyga lecanora</i>	0.894	1.372	1.372	6.329
Surf redfish	<i>Actinopyga mauritiana</i>	0.684	1.145	1.145	5.347
White teatfish	<i>Holothuria fuscogilva</i>	0.627	1.29	1.29	4.219
Unidentified BDM	<i>n/a</i>	0.894	1.706	1.706	11.364

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Status of Wildlife Trade Operation conditions applied to the Torres Strait Beche-de-mer Fishery.

Condition	Progress on management action
1 Operation of the Torres Strait Beche-de-Mer Fishery will be carried out in accordance with the management regime in force under the <i>Torres Strait Fisheries Act 1984</i> .	Ongoing – condition adhered to
2 The Torres Strait Protected Zone Joint Authority to inform the Department of the Environment and Energy of any intended material changes to the Torres Strait Beche-de-Mer Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.	Amendments to management arrangements are reported to DoEE through Strategic Assessment Reports.
3 The Torres Strait Protected Zone Joint Authority to produce and present reports to the Department of the Environment and Energy annually as per Appendix B of the <i>Guideline for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i> .	The first annual report detailing any changes to the Beche-de-mer WTO since approval was declared in December 2017 was submitted to DoEE on 20 December 2019.
4 The Torres Strait Protected Zone Joint Authority to implement a strategy to manage the risks of overfishing and localised depletion for all species harvest in the fishery. This may include data collection and analysis protocols to manage risks, triggers and/or limits for managing harvest, and should also account for all sources of stock mortality, including commercial, recreational, Traditional and illegal harvest.	A Harvest Strategy for the Beche-de-mer Fishery was adopted by the PZJA at their meeting on 19 November 2019 and came in to effect on 1 January 2020. Changes to TACs and conversion ratios were also implemented via licence conditions effective as of 1 Jan 2020. The harvest strategy accounts for the understanding that more data and information reduces the risk to a fishery and therefore reduces the need for precautionary management. The framework guides the requirements for data and information collection, what happens to a species if the TAC is over caught, how much a TAC could be adjusted depending on the level of data available. It also provides guidance on how to re-open a closed species.
5 The Torres Strait Protected Zone Joint Authority to complete an ecological risk assessment and implement an ecological risk mitigation strategy to ensure all environmental and ecological risks are appropriately managed.	The Torres Strait Scientific Advisory Committee (TSSAC) at their May 2019 meeting agreed that the Torres Strait Beche-de-mer Fishery undergo an Ecological Risk Assessment (ERA) as a high priority in 2019-20. This is being sourced under an existing contract with CSIRO.
6 The Torres Strait Protected Zone Joint Authority to continue to pursue the changes necessary to facilitate reporting of interactions with species listed in Part 13 of the <i>Environmental Protection and Biodiversity Act 1999</i> .	There is a section in the voluntary HC01 logbook for fishers to report interactions with threatened, endangered and protected species. AFMA continues to promote the use of daily fishing logbooks.

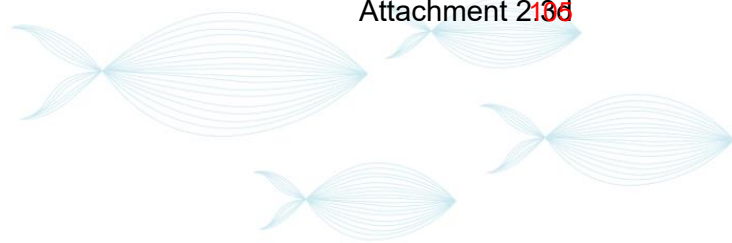
Proposed amendments to the *Torres Strait Fisheries Act 1984* and *Torres Strait Fisheries Regulations 1985*

Amendment	Status as at 25 November 2019
Proposed amendments to the <i>Torres Strait Fisheries Act 1984</i> (the Act)	
Capacity to require catch reporting across all licence holders	Policy approval granted by PZJA, further policy approval to be sought before drafting can commence.
Capacity to provide electronic licensing and monitoring to licence holders	
Capacity to delegate the powers to grant and vary scientific and development permits	
Capacity to simplify the renewal of fishing licences	
Capacity to delegate powers to contracted service providers	
Provide for the grant of a licence without specifying a boat in the licence*	
Provide for a class of licence that authorises the taking of fish as well as the processing and carrying of fish taken with the use of another boat*	
Impose logbook requirements via the determination of a legislative instrument, exercisable by a delegate of the PZJA*	
Proposed amendments to the <i>Torres Strait Fisheries Regulations 1985</i> (the Regulations)	
Provide simplified legislative authority for the collection* and disclosure of information, to be exercised by a person exercising powers or performing functions under the Act	Drafting has commenced, further drafting required.
Implementation of Fisheries Infringement Notices	
Allow licences (fish receivers, carrier and processing, fishing without boat) to be granted for up to five years duration*	
Update provisions concerning the detention of illegal foreign fishers to be brought in line with analogous provisions of the <i>Migration Regulations 1994</i> *	
Prescribe a condition that all licence holders must comply with any relevant plan of management*	

*Additional proposed amendment approved by the PZJA at its meeting on 8 October 2019.

Changes to fishing rules in Queensland

September 2019



Fish for the future

Queensland's new fisheries regulations start 1 September 2019. A number of changes have been made to recreational, charter and commercial fishing rules to ensure we have fish for the future.

Please note: Queensland Boating and Fisheries Patrol will not immediately issue fines for non-compliance with these changes. Over the next few months the focus will be on education and awareness. Our website, recreational fishing app and recreational fishing guides are being updated to reflect the new rules.

Changes to fishing rules for all sectors

Size limits

- Pearl perch minimum legal size limit increased from 35 cm to 38 cm
- King threadfin minimum legal size limit increased from 60 cm to 65 cm on the east coast
- Single minimum legal size limit of 60 cm for Mary River cod and Murray cod, and Murray cod maximum size limit of 110 cm removed
- Clarified in the regulations that the size limit for giant queenfish in the Gulf of Carpentaria applies to all fishers

Closures

- New seasonal closure for snapper and pearl perch – 15 July to 15 August each year
- New closed waters that prohibit take of black jewfish within 200 m from the Hay Point and Dalrymple Bay coal terminals
- Standardised start and end times for the majority of fishery closures – midnight to midnight

Other

- Mulloway and scaly jewfish must be kept whole while on board a vessel
- Black jewfish will become a no-take species for all sectors when the total allowable commercial catch is reached

Changes to recreational fishing rules

Possession limits

- Mud crab possession limit reduced from 10 to 7
- Boat limits for nine priority black-market species will be two times the possession limit – mud crab, prawns, snapper, black jewfish, barramundi, shark, Spanish mackerel, sea cucumber and tropical rock lobster (these boat limits do not apply to charter fishers)
- Pearl perch possession limit reduced from 5 to 4
- Tropical rocklobster possession limit of 5 applies in all Queensland waters
- Blue swimmer crab possession limit reduced from no limit to 20
- Mollusc and gastropod (including pipis) possession limit reduced from 50 to 30



- General possession limit of 20 introduced for all species without a prescribed possession limit (excluding some bait species)
- No possession limit for the following bait species – southern herring, common hardyhead, Australian sardine, Australian anchovy, silver biddy, saltwater yabby, soldier crab and non-regulated worms (e.g. mangrove worms)
- Possession limit of 50 introduced for certain bait species – mullet (excluding diamondscale, sea and freshwater mullet), cuttlefish or squid (excluding tiger squid), smooth-clawed rock crab and yellowtail pike
- Hammerhead shark and white teatfish are now no-take species
- Oyster possession limit clarified in the regulations – a person must eat oysters (excluding pearl oysters) on the spot where they are taken (pearl oysters can be taken away from the site but they must be the correct size)
- Australian bass possession limit in stocked impoundments increased from 2 to 5
- Clarified in the regulations that a possession limit of 50 applies to the Cribb Island worm (formerly known as blood worm)
- Mary River cod possession limit of 1 in stocked impoundments expanded to include Wyaralong Dam, Ewen Maddock Dam, Caboolture River Weir, Robina Lakes, Lake Kurwongbah, Enoggera Reservoir and Lake Manchester

Closures

- Tinana Creek and its tributaries upstream of Teddington Weir wall closed to all forms of fishing
- Murray cod seasonal closure changed to 1 August to 31 October each year
- New waters closed to line fishing (or possession of a fishing line) from 1 August to 31 October in the following locations:
 - Coomera River (upstream of defined boundary)
 - Albert River (upstream of defined boundary)
 - Running Creek
 - Christmas Creek
 - Stanley River (upstream of defined boundary)
 - Mary River (upstream of defined boundary, excluding Baroon Pocket Dam, Borumba Dam and Lake MacDonald)

Gear requirements

- Recreational crab apparatus and freshwater traps must now be marked with the surname and address of the person **using** the apparatus

Changes to charter fishing rules

- Offshore charter fishers now permitted to use trot lines to take spanner crabs
- Snapper and pearl perch extended in-possession limit removed

Changes to commercial fishing rules

Trawl

- New management regions established in the East Coast Trawl Fishery (replacing the existing Northern and Southern Regional Waters):
 - Southern Inshore Trawl Region
 - Southern Offshore Trawl Region
 - Central Trawl Region
 - Northern Trawl Region
- Extended winter no-take of scallop by a month to 1 May and 30 November in the Southern Inshore and Southern Offshore trawl regions
- Introduced a scallop effort cap in the Southern Inshore Trawl Region of 118 635 units (if effort reaches the cap between 1 December and 24 April scallop will become no take)

- Introduced strip closures to protect small prawns in the Southern Offshore Trawl Region between 2 November and 1 March in the following areas:
 - Stradbroke Island
 - Caloundra to Moreton Island
 - Fraser Island

Spanner crab

- Spanner crab dilly maximum limit increased from 45 to 75 if 2 crew are on board (all boats may carry up to 10 extra dillies on board to replace lost/damaged dillies during a trip)
- Spanner crab fishery quota year adjusted to run from 1 July to 30 June each year
- Number of C2 fishery symbols limited to those currently in existence (consistent with limited entry in all other Queensland fisheries)

Snapper and pearl perch

- Total allowable commercial catch limits established for snapper (42 tonnes) and pearl perch (15 tonnes)
- Take of snapper using commercial net gear is now prohibited
- Snapper and pearl perch must be kept whole while on board a vessel

Vessel tracking

- Vessel tracking requirements amended to apply to all commercial fishing vessels (not including charter) from 1 January 2020 – fisheries that require vessel tracking from 1 January 2020 are D, A1, A2, R, B1, J1, M2, T5, T6, T7, T8 and T9

Licensing

- Limited entry nature of commercial fisheries clarified in the regulations
- Payment of commercial fishing fees amended from 'in arrears' to 'in advance' – no changes to fees as part of this administrative change (it will be just like paying your car or boat registration)
- Clarified the purposes for which a General Fisheries Permit may be issued in the regulations.
- A tender vessel must be nominated as the primary vessel against a commercial fishing boat licence before the vessel can be used (i.e. tender operating solely) in any fishery
- All commercial fishers must display details of their commercial fishing boat licence or commercial harvest fishing licence on a sign adjacent to their land-based commercial fishing operation
- A person applying for a commercial fisher licence must be at least 18 years of age and possess knowledge of fisheries legislation to the extent it applies to commercial fisheries

Other

- Clarified in the regulations that commercial fishers digging for bloodworms must put any disturbed or removed seagrass in an upright position back in the same location

Please note: As part of the fisheries reform process, further regulatory changes are expected to be considered before the end of the year.

More information

For more information on the changes, visit fisheries.qld.gov.au or call 13 25 23.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
WORKING GROUP UPDATES PNG National Fisheries Authority update	Agenda Item 2.4 For NOTING

RECOMMENDATIONS

1. That the Working Group **NOTE** the update provided by the PNG National Fisheries Authority (NFA).

BACKGROUND

2. A verbal report will be provided under this item subject to the availability of NFA officers.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
WORKING GROUP UPDATES Native Title update	Agenda Item 2.5 For NOTING

RECOMMENDATIONS

1. That the Working Group **NOTE** any updates on Native Title matters from members, and representatives of Malu Lamar (Torres Strait Islanders) Corporation RNTBC (Malu Lamar)

BACKGROUND

2. On 7 August 2013 the High Court of Australia confirmed coexisting Native Title rights, including commercial fishing, in the claimed area (covering most of the Torres Strait Protected Zone). This decision gives judicial authority for Traditional Owners to access and take the resources of the sea for all purposes. Native Title rights in relation to commercial fishing must be exercisable in accordance with the *Torres Strait Fisheries Act 1984*.
3. Traditional Owners and Native Title representative bodies have an important role in managing Torres Strait fisheries. It is important therefore that the Working Group keep informed on any relevant Native Title issues arising.
4. AFMA has extended a standing invitation to Malu Lamar to attend all PZJA advisory forums as an observer.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
2019 BECHE-DE-MER DATA SUMMARY	Agenda Item 3 FOR DISCUSSION and ADVICE

RECOMMENDATIONS

1. That the Working Group:
 - a. **NOTE** the overview of catch and effort reporting for the Torres Strait Beche-de-mer Fishery as reported in catch disposal records (TDB02) by licenced fish receivers for the 2019 fishing season; and
 - b. **DISCUSS** and **PROVIDE ADVICE** on the likely accuracy of available data in reflecting true catch and effort for the season, in particular:
 - i. When providing advice on management arrangements for a future black teatfish opening (Agenda Item 5).

KEY ISSUES

Beche-de-mer Catch Data

2. As at 17 January 2020, a total of 34.5 tonnes of beche-de-mer had been reported across 14 different species in the BDM Fishery in the 2019 fishing season.
3. This is a significant reduction (46%) in reported catches from the 2018 fishing season which reported 64.3 tonnes of beche-de-mer.
4. Curryfish was the most caught species, with 13.5 tonnes, followed by prickly redfish (10.8 tonnes), lollyfish (3.9 tonnes) and blackfish (3.4 tonnes).
5. This is a noticeable change in targeted species since 2018, where leopardfish and white teatfish were the two most commonly caught species after curryfish and prickly redfish. A summary of catch by species is provided in **Table 1**.
6. 2019 season catches were reported across 239 Catch Disposal Records (CDRs), from 17 fish receivers and 40 licenced TIB fishers. As summary of licences in the BDM fishery is outlined in **Table 2**.
7. Key improvements to the reported CDR data include:
 - a. Species level identification of sea cucumbers with 8% of reported curryfish (13.5 tonnes) were reported as common curryfish (*Stichopus herrmanni*); 2% of curryfish was reported as curryfish vastus (*Stichopus vastus*); and 90% of curryfish was reported as the mixed curryfish basket;
 - b. no 'unidentified sea cucumbers'; and
 - c. no reports of prohibited species.

Voluntary Section

Catch by Area

8. Of the 239 CDRs submitted with 2019 season catches, 69% of records (165 CDRs) reported the 'Area Fished'.

9. By volume of catch, 79% of the total BDM catch was reported as being caught from Areas 11 (Warrior), 12 (Warraber), 14 (Great North East Channel), 16 (Darnley), 17 (Cumberland), 18 (Seven Reefs) or 19 (Don Cay).
10. 21% of the total catch did not include data on 'Area Fished'.

Catch by trip length (number of days fished)

11. 70% of records (167 CDRs) reported the 'Number of Days Fished', which accounted for 88% of the total reported catch volume.
12. Reported trip lengths ranged from 1-21 days, however 37% of the total reported catch was reported on single day trips only.
13. The average reported catch for a single day's fishing was 114kg.

Number of People Fishing

14. 71% of records (169 CDRs) reported 'Number of fishers'; with the majority of records (64%) indicating that 4 or less people were fishing on that trip. More specifically, the majority of catch (14.5 tonnes, or 42% of the total) was reported to have been caught in dinghys with 3 people.
15. A total of 40 different licenced TIB fishers landed catch of Beche-de-mer in 2019. 13 of the same TIB fishers fished in both 2018 and 2019. A total of 25 'new' TIB fishers fished for BDM in 2019 compared with last season, while 19 different fishers who fished in 2018 did not fish in 2019.
16. All reported BDM catch was landed to and reported by 17 different licenced fish receivers in 2019.
17. Ten of these receivers consistently received catch over the past two seasons (since the introduction of the FRS), with an additional 7 'new' fish receivers in 2019.

Processed State

18. BDM catch was reported in 11 different processed states including; boiled, boiled and chilled, boiled and frozen, boiled and salted, chilled, frozen and green, live, salted, salted and frozen, whole weight, and damaged.
19. 33% of total reported catches were recorded as 'boiled and salted', 25% as 'salted' and 22% as 'frozen and green'.
20. There have been significant improvements in the number of CDRs and fishers voluntarily reported damaged product separately.

Timeliness of data submission

21. In the 2019 season, 75% of CDRs were received by AFMA within 24 days. 24 days accounts for the maximum 3 day limited to send the white copy CDR to AFMA after the product is weighed, plus a conservative estimate of time (21 days) needed for CDRs to reach AFMA in the post.
22. This is a considerable improvement on the 2018 fishing season where only 49% of CDRs were considered to have been received 'on time'.
23. The average time between the reported date landed and the date the CDR was received by AFMA has reduced substantially from 52 days in 2018, to 26 days in 2019.
24. A summary of key reporting metrics and status from 2018 and 2019 are summarised in **Table 3** below.

Table 1. Breakdown of reported BDM catch¹ by species since 2005.

Common name	TAC (t)	2005	2007	2010	2011	2012	2013	2014	2015	2016	2017 ²	2018 ³	2019
Black teatfish	0 (15 ⁴)				75	2,001	138	16,624	23,303				
Prickly redfish	15 (20 ⁵)	5,564	128	146	11,056	1,255	5,888	9,173	28,110	11,211	12,185	14,741	10,867
Sandfish	0			5	31	2,152	26	6				18	
Surf Redfish	0	734					52	1			747		
White teatfish	15	186			3,179	13,924	12,633	16,341	4,200	990		1,774	1,500
Blackfish	80 basket		128		507	73	216	1,960	3,596	1,098	11,118	1,368	3,429
Burrowing blackfish													3
Curryfish – mixed					1,118				6,099	1,085	597	42,392	12,212
Curryfish common													1,093
Curryfish vastus													215
Deepwater redfish				7			5,024	4,229	5,546		160	172	50
Elephant trunkfish					4	28	2		133			190	
Golden sandfish							52	351	55			8	32
Greenfish							1	1	14		63	1,013	271
Stonefish				459							6		
Leopardfish											6,876	2,322	958
Brown sandfish												30	204
Lollyfish													3,997
Unidentified BDM												67	
'Basket total'		186	256	466	1,629	101	5,295	6,541	15,443	2,183	19,831	47,761	22,640
GRAND TOTAL		6,484	256	617	15,970	18,803	24,032	48,686	71,056	14,384	32,764	64,300	35,007

¹ No catch reported in 2006, 2008, 2009² Catch data for 2017 is converted weights where processed form is known (47kg unknown), based on catch reported through tax invoices, HC01, TDB01 and TBD02. Verification was conducted to remove possible duplicates between records.³ Data is reported through TDB02 Catch Disposal Records only and converted to wet weight gutted using CSIRO recommended conversion factors.⁴ The 15t TAC was available during 2014 and 2015 only⁵ The 20t TAC was available until the end of 2017.

Yellow highlighted cells indicate an exceeded TAC

Table 2. Number of licences in the Beche-de-mer Fishery as at 7 February 2020.

Number of TIB licences with BDM fishery entries	Number of TVH licences	Fish Receiver licences
168	1 licence held in trust by the TSRA	78

Table 3. Summary of changes in key reporting metrics from 2018 to 2019.

Metric	2018	2019	Change
Number of CDRs submitted	258	239	↓
Total catch reported	64.3 tonnes	34.5 tonnes	↓ (46%)
No. of species reported	14	14	n/a
% of CDRs reporting Area Fished	84%	69%	↓
% of CDRs reporting Number of Days Fished	77%	70%	↓
% of CDRs reporting Number of Fishers	96%	71%	↓
% of CDRs received by AFMA within 24 days	57%	75%	↑
Average CDR receipt time	52 days	26 days	↓
Number of licenced TIB fishers reporting BDM	34	40	↑
Number of licenced Fish Receivers reporting BDM	13	17	↑

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
Preliminary results of the Torres Strait Beche-de-mer Stock Survey	Agenda Item 4 For DISCUSSION & ADVICE

RECOMMENDATIONS

1. That the Working Group **DISCUSS** and **PROVIDE ADVICE** on the preliminary results of the eastern Torres Strait Beche-de-mer stock survey to be presented by Scientific Member, Tim Skewes.

KEY ISSUES

2. CSIRO conducted underwater dive surveys of beche-de-mer species between 25 November - 5 December 2019, and 10 – 23 January 2020, as part of the project '*Stock survey of Torres Strait Beche-de-mer species*', (AFMA Project No. 2019/0826), led by CSIRO and funded by the TSRA. The surveys examined:
 - a. the eastern Torres Strait fishery with the focus on prickly redfish, curryfish species, black teatfish and surf redfish;
 - b. a limited exploration of deep water habitats to extend our knowledge of the full extent of the white teatfish resource in east Torres Strait, and
 - c. additional opportunistic habitat surveys of Ugar Island to support a related project involving Traditional Inhabitant Fishers from Ugar and CSIRO researcher Leo Dutra, for the enhancement of beche-de-mer stocks; and
 - d. additional habitat surveys of Ugar Island and deep water surveys of white teatfish stocks.
3. CSIRO will present an overview of the preliminary results of the surveys (**Attachment 3a – late paper/presentation**)
4. The Working Group is being asked to consider this information and have regard for it when discussing a future reopening of black teatfish and, where relevant, future management priorities.

BACKGROUND

5. In June 2019, the Torres Strait Scientific Advisory Committee (TSSAC) agreed to endorse the research proposal to undertake a stock survey of Torres Strait beche-de-mer species. The last surveys on east Torres Strait was undertaken in 2009.
6. The project addresses an essential priority in the fishery's Five Year Research Plan which was originally identified by HCWG14 at their meeting on 24 October 2018 on Erub originally aimed at understanding the stock status of sandfish at Warrior Reef.
7. Due to objections raised by Traditional Owners of Iama and Tudu against a particular CSIRO scientist participating in the sandfish Warrior Reef survey, this segment of the survey was not carried out and survey effort was reallocated to eastern areas of the survey. As such, the survey results do not address sandfish abundance on Warrior Reef which has been a longstanding research priority.
8. Dr Nicole Murphy from CSIRO is the Principle Investigator on the project with both Dr Tim Skewes and Dr Eva Plaganyi as co-investigators.

9. The key deliverables from the survey are to:
 - a. Produce stock size estimates and distribution data, and assess the fishery status for each population of beche-de-mer in Torres Strait, including the sandfish fishery.
 - b. Use survey data to make recommendations on potential fishery expansion (e.g. TACs) and re-opening of closes fisheries.
 - c. Map important habitant variables, especially those relevant to fishery production.
 - d. Make survey outputs available in a form suitable for us in the Beche-de-mer Harvest Strategy for Torres Strait.
 - e. Production of formal final reports and a plain English summary document with special consideration of Traditional Knowledge.
10. A copy of the full research proposal is provided at **Attachment 3b**.
11. The survey is funded across the 2019/20 and 2020/21 financial years by the Torres Strait Regional Authority.

Torres Strait Scientific Advisory Committee research application

Please indicate the type of application you are submitting – an EOI in response to a call for research; or a full proposal in response to TSSAC advice that your initial application has been approved for further development:

X

Pre-proposal (Please complete Sections 1-4 inclusive)

Full Research Proposal (Please complete sections 1-8)

SECTION 1 - ADMINISTRATIVE SUMMARY

Project title: Stock survey of Torres Strait Beche-de-mer species

Applicant (organisation or person): CSIRO Ocean & Atmospheric Research

Contacts

Administrative

Title/Name:	Cathy Minnucci	Phone:	03 6232 5505
Position:	Finance Advisor	Email:	cathy.minnucci@csiro.au
Organisation:	CSIRO Oceans & Atmosphere	Postal address:	GPO Box 1538 Hobart, TAS 7001

Principal Investigator (person)

Title/Name:	Nicole Murphy	Phone:	07 3833 5948
Position:	Experimental Scientist	Email:	nicole.murphy@csiro.au
Organisation:	CSIRO Oceans & Atmosphere	Postal address:	Queensland BioSciences Precinct (QBP) 306 Carmody Rd, St Lucia, QLD 4072

Co-investigator (s)

Title/Name:	Tim Skewes	Phone:	0419 382 697
Position:	Collaborator	Email:	timskewes@outlook.com
Organisation:	Scientific expert	Postal address:	12 Watsonia St Redland Bay, QLD 4165

Co-investigator (s):

Title/Name:	Eva Plaganyi	Phone:	07 3833 5508
Position:	Principal Research Scientist	Email:	eva.plaganyi-lloyd@csiro.au
Organisation:	CSIRO Oceans & Atmosphere	Postal address:	Queensland BioSciences Precinct (QBP) 306 Carmody Rd, St Lucia, QLD 4072

Planned Start and End Date

Start Date:	01/07/2019	End Date:	15/12/2020
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SECTION 2 – PROJECT DESCRIPTION

PROJECT BUDGET: (Excluding GST)

Financial Year	AFMA	Applicant (in kind)	Applicant	Other
2019/2020	\$207,641	\$88,989		\$0.00
2020/2021	\$81,598	\$34,971		\$0.00
	\$0.00	\$0.00		\$0.00
Totals	\$289,239	\$123,960		\$0.00

SECTION 3 – PROJECT DESCRIPTION

Background and need (max 250 words) - *detail any important background relating to the project. Why it is important and being proposed (need). Any related projects or other information the TSSAC should know when considering it for funding.*

Beche-de-mer fisheries in Australia and the South Pacific have been subjected to increased fishing pressure in recent years due to increased prices for beche-de-mer in Asia. Research has shown that many South Pacific beche-de-mer fisheries have been over-exploited, with recovery being slow and sporadic (Purcell, 2013).

The Torres Strait Beche-de-mer Fishery (TSBDMF) has become an important source of income for Torres Strait islanders since it was re-established in the early 1990s. While most sea cucumber species are considered to be in good condition, closure or catch limits have been implemented for several high value fishery species such as sandfish, black teatfish and surf redfish. Currently, fishing is mainly focused on white teatfish, blackfish, deepwater redfish, prickly redfish and of late, curryfish species. Recently, there has been some evidence of local depletion for prickly redfish and curryfish i.e. fishermen reporting decreased catch rates.

Fishery dependent data (logbooks) were introduced to the TSBDMF in December 2017. There is still however, limited information available to assess the status of fishery populations, with incomplete catch and effort time series data available prior to 2017. A stock survey is presently the only viable method for determining the size and status of fished beche-de-mer populations for Torres Strait.

Objectives / performance indicators (max 250 words) - *list the major objectives or planned outcomes of the project. These will form your project milestones:*

We plan to develop a research program based on three population surveys:

1. Survey of the east Torres Strait fishery with the focus on prickly redfish, curryfish species, black teat fish and surf redfish.
2. Additionally, a limited exploration of deep-water habitats will be undertaken to extend our knowledge of the full extent of the White teatfish resource in east Torres Strait.
3. Survey focussed on sandfish on Warrior reef. We will also engage with Papua New Guinea to look at opportunities for collaborating to undertake a full scale survey (inclusion of northern Sandfish population).

Deliverables:

1. Produce stock size estimates and distribution data, and assess the fishery status for each population of beche-de-mer in Torres Strait, including the sandfish fishery.

2. Use survey data to make recommendations on potential fishery expansion (eg. TAC's) and reopening of closed fisheries.
3. Map important habitat variables, especially those relevant to fishery production.
4. Make survey outputs available in a form suitable for use in the new Beche-de-mer Harvest Strategy for Torres Strait.
5. Information from the project will be provided to AFMA and Torres Strait Island stakeholders in the form of formal final reports and a plain English summary document. Special consideration will be taken with Traditional Knowledge (TK).

Consultation and Engagement - *Note consultation is required for both the pre- and full-proposal phases for TSSAC projects. This differs from AFMA Research Committee Proposal requirements.*

Pre-proposal phase consultation

Briefly detail (this will form the skeleton of your community engagement strategy which must be developed as part of full proposal phase):

- *the areas in the Torres Strait region where the proposed research activities may occur*
- *the Torres Strait community groups or individuals that you will engage/involve from these areas in the development of and or during the project if it reaches full proposal phase (refer to Step 2 of Attachment A - Procedural Framework for Researchers in the Torres Strait).*
- *how you plan to engage/involve key stakeholders (e.g. community notices, telephone, email, employment, interviews, meetings, workshops) in the project development. Note, any potential fee for service rates need to be factored into your research project budget.*

CSIRO has carried out research on the Torres Strait Beche-de-mer Fishery since 1995. During this time, a number of abundance surveys of eastern Torres Strait, including two full scale surveys in 1995/96 and 2002 and two abbreviated surveys in 2005 and 2009 have been undertaken. Additionally, two full scale surveys for sandfish on Warrior reef were undertaken in 1995/96 and 2000, with relative abundance surveys also undertaken in 1998, 2002, 2004 and 2010.

As a project team, the principal investigator (Nicole Murphy), collaborator (Tim Skewes) and co-investigator (Eva Plaganyi), have over 45 years combined experience working together on the Torres Strait Beche-de-mer fishery, including regular consultation and communication with traditional owners.

Previous surveys have included a high level of interaction with Torres Islanders, both in the design and carrying out of the survey, and interpretation of results. The history, status and research of the fishery has been communicated to Torres Strait islanders through TSHCWG meetings, dedicated Island workshops and supply of appropriate communication material for conveying the outcomes of research projects to islander communities. Our belief is that there is a high level of awareness for the fishery among traditional owners. Any future surveys will be conducted at the same level of consultation with respect to community desires. Detailed survey designs will be discussed and ratified during targeted consultations with islander representatives, including Fisher representatives, Prescribed Body Corporates and Island Councillors, with the chance also for whole of community feedback.

As with previous surveys where Islanders from Mer and Erub participated in 2009 sampling, Islanders will be invited to be part of field work. The initial plan will be to invite those Islanders from Ugar, Poruma and Masig who volunteered to take one of the sea cucumber processing packs at the last Beche-de-mer Harvest Strategy workshop and meeting, in October 2018.

*If there has been any initial consultation and engagement outline with whom and key outcomes (note consultation is **not** necessary at the EOI stage but has sometimes occurred through existing relationships).*

A stock survey to understand the status of sandfish on Warrior Reef was identified as a research priority during the most recent sitting of the HCWG in October 2018. Additionally, understanding the current stock status for all beche-de-mer species was identified in the TSSAC research project scope for 2019-20.

Beche-de-mer Harvest Strategy supporting information will be used to guide the survey design, with information for species, habitat, fishery and population status, used to determine the approach to sampling (see Appendix A).

Additional opportunistic research will also be welcomed where possible. Previously, habitat mapping was undertaken at Iama in 2010 during the Warrior survey, as Island representatives had expressed a desire to investigate the potential for sea ranching of sandfish in the lagoon. Habitat mapping could be undertaken at Ugar (if desired/involved in survey work), as this links directly to a project opportunity by Traditional Inhabitant Fishers from Ugar and CSIRO researcher Leo Dutra, for the enhancement of beche-de-mer stocks.

Full proposal consultation and engagement

In accordance with the Procedural Framework for Researchers in the Torres Strait (Nakata 2018; Procedural Framework), the TSSAC full proposal requires two different aspects be completed.

1. Develop a stakeholder engagement strategy, including a plain-English community consultation package which should be used to undertake preliminary consultation with relevant stakeholders as part of your full proposal application. Follow instructions in Appendix 4 of the procedural framework ([Attachment A](#)).

2. Provide documentation and outcomes from the preliminary consultation and engagement conducted, including:

- *The level of stakeholder support – particularly from Traditional Inhabitants for the proposed work (include a list of who was contacted and whether they support the project, or if not, why).*
- *Any perceived risks or stakeholder considerations with the project.*
- *How traditional knowledge might be considered or incorporated to enhance the project, its outcomes and benefits.*
- *Any activities suggested by Traditional inhabitants to improve the project, or bring it into alignment with community needs.*
- *How the research outcomes will benefit Traditional Inhabitants directly or indirectly, or why it is not relevant/applicable (i.e. projects in the prawn fishery).*

Attach the stakeholder engagement strategy (which should have been updated as required following initial consultation) with your full proposal application.

Please see attached additional Stakeholder Engagement Strategy documents. A supplementary document to the full proposal will be provided to the TSSAC Executive Officer by 10 May, which will detail further comments or feedback received from communities during the consultation process.

Methods (max 250 words) – Please detail the basic methods that will be used to undertake this project.

The survey will be conducted in accordance to surveys undertaken in previous years. Site counts at repeated survey sites will be used to calculate population trends. The analysis will include an assessment of recruitment from site counts and size frequency data, a technique that has been shown to be viable from previous surveys. Estimates of gross environmental parameters such as seagrass and coral cover, will be collected during the survey, not only for assessing the effects of fishing, but for mapping and monitoring the environment in general.

Planned east Torres Strait and Warrior reef surveys need to be undertaken at similar times to previous year's surveys to coincide with seasonal and lunar phase cycles of sea cucumber activity. This reduces differences in survey observer rates that may result from changes in sea cucumber burrowing behaviour, due to seasonal and tidal factors and can better detect changes in sea cucumber population abundance.

Based on previous survey times, the optimal period to undertake the east Torres Strait survey is February or March, and January for surveying sandfish on Warrior Reef. However, taking into account timing of previous surveys, a combined survey to reduce costs could be undertaken in late January or March.

Planned outcomes and benefits (max 150 words) – this should include how the research will be used by management to benefit the fishery and other stakeholders:

A sustainable beche-de-mer fishery would provide a substantial source of income and employment for Torres Strait Islander communities and downstream industries. Given that many of the world's beche-de-mer fisheries are fully or over-exploited, and that demand looks to be increasing, this fishery will likely be more valuable in the future.

Survey results will be made available in a form suitable for use in the new Beche-de-mer Harvest Strategy for Torres Strait. This will directly inform management decisions and possible future fishery expansion. It will also provide a framework for broader application of fishery data for monitoring.

We will also gather information on gross environmental parameters, not only for assessing the effects of fishing, but for mapping and monitoring the environment in general.

Project extension (max 100 words) - are there possible future research options that could result from this project?

There is a high probability of future research resulting from the currently proposed stock surveys, as project data will be prepared for inclusion in the new Beche-de-mer Harvest Strategy for Torres Strait.

Additionally, possible habitat mapping at Ugar links directly to a project opportunity by Traditional Inhabitant Fishers from Ugar and CSIRO researcher Leo Dutra, for the enhancement of beche-de-mer stocks.

Risk Analysis - be sure to consider risks specific to conducting research in the Torres Strait including community support or lack thereof.

CSIRO have successfully carried out a number of similar surveys in Torres Strait, as well as beche-de-mer research in areas across northern Australia and in PNG. The project team has extensive experience working together on the Torres Strait Beche-de-mer fishery, including regular consultation and communication with traditional owners.

Capacity (max 100 words) - Are there any past or current projects relevant to this proposal funded through the TSSAC, TSRA, FRDC or other organisation? Outline the Investigators' experience in the proposed

Past Beche-de-mer surveys of east Torres Strait have been undertaken in 1995-96 (full scale), 2002 (full scale), 2005 (relative) and 2009 (relative); and sandfish surveys of Warrior Reef undertaken in 1995-96 (full scale), 1998 (relative), 2000 (full scale), 2002 (relative), 2004 (relative) and 2010 (relative).

The project team has over 45 years combined experience working on the Torres Strait Beche-de-mer Fishery.

research and Torres Strait region.

SECTION 4 - Schedule of Payments

As a general rule, up to 10% of the total project cost may be provided as an initial payment and a minimum of 30% of the total project cost must be left for the final report.

Milestones	Deliverable date (Please refer to instructions)	Schedule of AFMA payment(s) (excluding GST)
1. Initial payment on signing of contract	On signing	\$28,923
2. Conduct BDM survey of East Torres Strait	31 March 2020	\$122,557
3. Milestone report	15 July 2020	\$20,050
4. Draft final report	31 Oct 2020	\$30,938
5. Final report	15 Dec 2020	\$86,771
TOTAL		\$289,239

SECTION 5 - Description of Milestones

Details on each milestone must provide sufficient information to justify the milestone cost and should match the performance indicators. The description field will describe the work to be completed for that milestone with the justification field elaborating further on the categories of cost - for example salary.

Milestone: 1. \$28,923

Date: On signing

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$17,716	\$1,008	\$10,199	\$0.00	\$28,923

Description:

Initial payment on signing of contract

Justification:

10% of project cost on initial signing of contract

Milestone: 2. \$122,557

Date: 31 March 2020

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$75,070	\$4,272	\$43,215	\$0.00	\$122,557

Description:

Conduct BDM survey of East Torres Strait, including review of historic CSIRO seabed mapping data

Justification:

Data analysis, field and gear costs associated with mobilization and field work

Milestone: 3. \$20,050

Date: 15 July 2020

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$12,281	\$699	\$7,070	\$0.00	\$20,050

Description:

Submission of milestone report

Justification:

Write up of survey work and results

Milestone: 4. \$30,938

Date: 31 October 2020

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$18,950	\$1,079	\$10,909	\$0.00	\$30,938

Description:

Submission of draft final report for comment

Justification:

Results of analyses of data and write up

Milestone: 5. \$86,771

Date: 15 December 2020

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$53,150	\$3,024	\$30,597	\$0.00	\$86,771

Description:

Submission of final report, addressing of comments from draft final report

Justification:

30% of project cost for final report

Section 6 – Special Conditions

If relevant, this field will be used to assist in contract preparation for any special conditions. Examples of special conditions

may relate to marine spatial closures (including access) or any other clauses not specifically contained in the contract.

Section 7 - Data management

Identify the appropriate Intellectual Property category applicable to this application. Choose ONE from below:

Code	Description
1	Published, widely disseminated and promoted, and/or training and extension provided. Relates mainly to outputs that will be available in the public domain.
2	Published, widely disseminated and promoted, and/or training and extension provided. Related products and/or services developed. Relates mainly to outputs that will largely be available in the public domain, but components may be commercialised or intellectual property protected.
3	Published, widely disseminated and promoted, and/or training and extension provided. Related products and/or services developed. Relates mainly to outputs that may have significant components that are commercialised or intellectual property protected.

The following IP category applies to this application:

2. Published, widely disseminated and promoted, and/or training and extension provided. Related products and/or services developed. Relates mainly to outputs that will largely be available in the public domain, but components may be commercialised or intellectual property protected.

I have searched for existing data (refer to guidelines on how to search the Australian Spatial Data Directory and Oceans Portal):

[Yes / No]

Provide a brief description of the data to be generated from the project and how this data will be stored for future protection and access, including:

- information on data security or privacy issues and applying to the data
- Nominated data custodian

Survey data e.g. counts and measurements, will be entered into and stored in existing Access and Oracle databases. Data storage, protection and access is governed and managed according to CSIRO policy guidelines, in accordance with CSIRO rules and regulations.

- Document how research data, traditional knowledge and intellectual property will be handled during your project, including but not limited to:
- Acknowledging where the data or information used in research comes from, so that any income made from selling a concept in the future will be adequately linked to a community's contribution/ knowledge so they also receive financial or other benefit from "selling" a concept onward.
- How you will negotiate use and publish of traditional knowledge with communities. For example do traditional inhabitants allow public publication of information or only for project activities and reported on in internal reports? This will depend on data sensitivity and privacy (such as fishing grounds etc).
- Are there any other ethical considerations you have identified for this project which need to be managed?
- Are you committed to gaining ethics approval for this project from a suitable body such as a university or AIATSIS?

- Acknowledging where the data or information used in research comes from, so that any income made from selling a concept in the future will be adequately linked to a community's contribution/ knowledge so they also receive financial or other benefit from "selling" a concept onward.

N/A

- How you will negotiate use and publish of traditional knowledge with communities. For example do traditional inhabitants allow public publication of information or only for project activities and reported on in internal reports? This will depend on data sensitivity and privacy (such as fishing grounds etc).

Special consideration will be taken with any Traditional Knowledge (TK) collected during the project. TK will only be used with the express permission of the traditional owners. Guidance will be sought from local Island leaders and the TSRA to ensure full local support and agreement over the handling of TK information.

- Are there any other ethical considerations you have identified for this project which need to be managed?

N/A

Are you committed to gaining ethics approval for this project from a suitable body such as a university or AIATSIS?

N/A

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
Future Black Teatfish Opening	Agenda Item 5 For DISCUSSION & ADVICE

RECOMMENDATIONS

1. That the Working Group:
 - a. **NOTE** that HCWG 15 (1-2 August 2019) recommended a trial opening of black teatfish, contingent on:
 - a. the implementation of the beche-de-mer Harvest Strategy, and
 - b. remaking of the *Fisheries management Instrument No. 15* (FMI No. 15) in 2020;
 - b. **NOTE** that HCWG Traditional Inhabitant members undertook community consultations to seek feedback on the proposal to restrict TIB licence holder access to a black teatfish opening through customary protocols and traditional lore;
 - c. **NOTE** the views of Torres Strait communities on a black teatfish opening as discussed during PZJA Traditional Inhabitant member cluster consultations (Agenda Item 2.1);
 - d. **NOTE** the preliminary stock survey results for black teatfish from the Torres Strait beche-de-mer species stock survey undertaken in late 2019 (presented under Agenda Item 3);
 - e. **NOTE** the overview of catch and effort data for the beche-de-mer fishery during the 2019 season (Agenda Item 4);
 - f. **DISCUSS** and **ADVISE** on an appropriate TAC and managements arrangements (including the proposed daily reporting arrangements) as guided by the draft BDM Harvest Strategy for a sustainable black teatfish opening; and
 - g. **NOTE** the administrative next steps for seeking a PZJA decision on a black teatfish opening and prescribed elements for evaluating a black teatfish opening.

KEY ISSUES

2. At their most recent meeting, HCWG 15 (1-2 August 2019) recommended a trial opening of black teatfish, contingent on the implementation of the beche-de-mer Harvest Strategy, and remaking of the *Fisheries management Instrument No. 15* (FMI No. 15) in 2020.
3. Now agreed to by the PZJA, the Beche-de-mer harvest strategy (BDM HS) prescribes clear guidance for re-opening a fishery (specific BDM species) that has been closed due to concerns around stock status and depletion, or for reasons such as needing to first ensure adequately precautionary measures are in place so that overfishing does not occur or the stock does not become overfished. Note that other elements of the HS including legal minimum size limits are will not be fully implemented until FMI 15 is remade.
4. Further, the BDM HS advises that an opening should take into account previous survey information as well as recent catch history (both legal and illegal) over the period in which the fishery has been closed.

Step 1: Using all available information, first establish that the stock is above the limit reference point.

5. In late 2019 and early 2020, CSIRO undertook a stock survey of beche-de-mer species in the eastern Torres Strait, including Black Teatfish. Prior to this, the most recent stock survey information on black teatfish available is from more than a decade ago (2009) and scientific advice at the time was that black teatfish stocks had recovered to near unfished biomass.
6. Although the 2009 survey indicated the stock is likely above the limit reference point, the Working Group should consider the likely relevance of the most recent survey results and preliminary biomass estimates of black teatfish.
7. Having regard to the preliminary stock survey results, and all other available information, the Working Group is asked to provide advice on whether the black teatfish stock is above the limit reference point.
8. The default limit reference point under the HS is a conservative level of 40% of unfished biomass. However, the HS states that where available, survey data may be used to select a lower limit reference level.

Step 2: Evaluate whether monitoring and management are adequate.

9. Under the BDM HS, the re-opening decision rule further advises that if a survey or available information suggests the stock is above the limit reference point, then evaluate whether monitoring and management arrangements are adequate and ensure that data collection and monitoring are clearly specified and implemented before any further consideration of an opening.
10. At the July 2018 meeting, HCWG13 acknowledged that another Black Teatfish opening is largely contingent on improved catch reporting through the fish receiver system and industry demonstrating accurate and timely reporting of other beche-de-mer species.
11. In the two years the FRS has been in place, catch reporting in the Beche-de-mer Fishery has progressed substantially. While the provision of voluntary effort data is decreasing, species specific reporting continues to improve and the timely submission of CDRs is increasing. Overall reported catch and effort in the Beche-de-mer Fishery in 2019 is notably low compared to last season (refer to **Agenda Item 4**).
12. Having regard for recent trends in reporting, AFMA considers daily catch reporting the only viable option to ensure the risk of exceeding the TAC set for black teatfish is mitigated. Subject to PZJA decision, and having regard to HCWG16 advice, daily reporting requirements could entail the following:
 - a. Licenced TIB fishers to land their catches to a licenced Fish Receiver the same day the product is caught;
 - b. Licenced Fish Receivers would be required to submit their Catch Disposal Records (CDRs) to AFMA the same day the produced is landed (and caught);
 - c. Licenced TIB fishers would be prohibited from taking, carrying or possessing black teatfish after AFMA had notified licence holders that the black teatfish TAC had been reached and/or the fishery was closed;
 - d. Licenced Fish Receivers would be prohibited from receiving any black teatfish product from licenced TIB fishers after AFMA had notified licence holders that the black teatfish TAC had been reached and/or the fishery was closed.

13. The above listed conditions would be implemented through the variation of TIB licence conditions.
14. As discussed previously by the HCWG (refer to **Table 1**), additional management measures may be required to manage a black teatfish opening. This would be guided by the conditions prescribed under the Harvest Strategy including:
 - a. A precautionary trigger limit that prompts a temporary pause in fishing as catch records are collated to ensure overfishing does not occur;
 - b. An effective notification system to advise fishers as the TAC is approached;
 - c. Possible limitations on which species may be caught in conjunction with a re-opened species;
 - d. Opening the fishery in relation to other fishery season dates (including firm advice to have it during the tropical rock lobster hookah season), and favourable weather conditions;
 - e. Consideration of cultural laws and community agreements;
 - f. The voluntary collection of high resolution catch and effort data (daily fishing logbooks or reef names on CDRs) to provide a CPUE baseline for black teatfish (recommended by HCWG15).

Community access arrangements

15. HCWG15 further recommended that a 2020 black teatfish opening should have limited participation with constrained access of TIB licence holders through customary protocols and traditional lore established through community agreements. This recommendation was put forward to avoid a large influx of BDM fishery entries and exacerbated risk of exceeding the recommended black teatfish TAC.
16. However, HCWG noted that any limited access arrangements agreed to by communities would not be given legal effect nor made enforceable through regulation by AFMA. In other words, AFMA would not preclude a licenced TIB fisher from accessing black teatfish provided they had a valid TIB licence.

Next steps

17. Noting the outcomes of the PZJA Traditional Inhabitant Cluster Consultations (Agenda Item 3), the Working Group is asked to provide advice on additional management measures, as outlined in paragraph 14 above.
18. Having regard to HCWG advice, the next steps to seeking a PZJA decision on a future black teatfish opening would require:
 - a. Clear advice on a TAC and associated management arrangements from HCWG16 and clearance of the meeting record (mid-March 2020);
 - b. Native Title Notification in relation to the variation of TIB and Fish Receiver licence conditions to implement the recommended management arrangements (i.e. daily reporting) (6 weeks; closing mid-March 2020);
 - c. PZJA Standing Committee advice and a final PZJA decision (possible PZJA meeting in April 2020). AFMA will work as quickly possible to seek PZJA agreement on this issue; and
 - d. Community meetings and consultation across the Torres Strait to ensure stakeholders are educated on any changed management rules or reporting requirements and community access arrangements.

BACKGROUND

2014 trial opening

19. In 2014, the PZJA reopened fishing for black teatfish for the first time since the closure in 2003 (PZJA out of session decision, November 2002). Fishing was limited to a one month period (November) or until the TAC of 15 tonnes was caught. Key results of the trial were:
- a. the TAC was exceeded within two weeks of the one month trial. The total catch was estimated to be 16.624 tonnes;
 - b. it was necessary for AFMA to make daily contact with fishers, buyers, processors and freight companies to properly monitor catches; and
 - c. although there appeared to be good support from industry for the use of catch data forms prior to the season opening, only 17.3% of reported catch was reported by individual fishers. AFMA consulted widely with fishers, buyers and processors to determine the total catch.

2015 trial opening

20. In 2015, the PZJA again reopened fishing for Black Teatfish. Fishing was again limited to a one month period (November) or until the TAC of 15 tonnes was caught. Key results of the trial were:
- a. catch was not kept within the 15 tonne TAC limit. The fishery was closed after only eight days of fishing and fishers reported a total catch of 23.303 tonnes, 8.303 tonnes over the TAC;
 - b. interest by fishers in participating in the fishery increased. AFMA estimates that 64 fishers participated in the fishery in 2015 compared to 29 in 2014;
 - c. catch reporting rates by fishers and local community-based shore managers improved significantly from the 2014 trial opening. However, a significant lag between reporting and capture undermined the ability to manage the fishery within the TAC limit;
 - d. Approximately 68% of the product was collected by fishers working cooperatively with a central person reporting catch on behalf of a fishing operation;
 - e. There is a strong industry-held perception that significant levels of illegal fishing occurred. Allegations included fishing before the season commenced, using illegal fishing gear, and breaching both boat length limits and carrier vessel operating conditions.

21. A timeline of the history of Black Teatfish openings and closures is outlined in **Table 2**.

Recent Working Group recommendations and PZJA decisions

22. Since the 2015 trial opening the Working Group has been working to develop advice on the future management arrangements for Black Teatfish – this process is ongoing.
23. At its meeting in November 2016, the Working Group recommended the following minimum requirements for allowing further fishing for Black Teatfish:
- a. development and implementation of community-based catch monitoring arrangements (noting that in the short term these systems would be voluntary), starting with Community Monitoring Plans to be submitted to AFMA by 30 November 2016; and
 - b. implementation of a regulatory-based catch monitoring/reporting tool. The preferred tool being a mandatory FRS.

24. In February 2017, the PZJA agreed out of session that fishing for Black Teatfish will remain closed until the risk of exceeding the TAC set for the species is substantially reduced through cost-effective management tools.
25. At the HCWG13 in July 2018, it was recommended that AFMA prepare a proposal for the PZJA, for a Black Teatfish trial opening in December 2019, following consultation with communities about potential limited access for the five key eastern islands and to include a basis for scientific data to support the proposal after the finalisation of the harvest strategy.
26. AFMA has not progressed this matter due to competing priorities but also noting that any proposal to move away from the PZJAs current policy for open access would require detailed consultation, requiring significant time and resources. However, AFMA is supportive of communities developing their own access agreements for a black teatfish opening outside of formal regulation implemented by AFMA.
27. At HCWG14 in October 2018, industry observers agreed to reporting performance targets and aimed to demonstrate improved timeliness of reporting. Further, other industry observers advocated for the development of an industry Memorandum of Understanding (MOU) that outlines what standards of data need to be provided by industry to AFMA in order to demonstrate improved catch reporting to the PZJA.
28. Most recently at HCWG15, the Working Group recommended the PZJA consider a trial opening of the black teatfish fishery on 1 February 2020, contingent on the implementation of the beche-de-mer Harvest Strategy, and remaking of the *Fisheries Management Instrument No. 15* (FMI No. 15); noting that HCWG Traditional Inhabitant members would undertake community consultation regarding constraining access of TIB licence holders to black teatfish resources through customary protocols and traditional lore, and collecting high resolution catch and effort data to complement the BDM stock survey and provide a CPUE baseline.

Table 1. Summary of risks and benefits of previously discussed management tools required to support a Black Teatfish opening.

<p>KEY MANAGEMENT OBJECTIVE: Reduce the risk of exceeding the total allowable catch for Black Teatfish (Source: PZJA decision Jan 2017)</p> <p>Legislative Objectives (<i>Torres Strait Fisheries Act 1984</i>):</p> <p>(b) <i>to protect and preserve the marine environment and indigenous fauna and flora in and in the vicinity of the Protected Zone</i></p> <p>(e) <i>to manage commercial fisheries for optimum utilisation</i></p> <p>(g) <i>to have regard, in developing and implementing licencing policy, to the desirability of promoting economic development in the Torres Strait area and employment opportunities for traditional inhabitants.</i></p>				
Management tool		Details	Benefits	Risks
Catch Reporting	Mandatory Fish Receiver System	Reporting frequency to be increased to daily submission of CDRs. AFMA will need to implement a system that allows for submission of CDRs by electronic means.	The system is already in place and industry have the next 8-9 months to continue to demonstrate improvements in catch reporting.	Fishers and fish receivers will need to ensure they have means (eg reception to email, sms) to submit reports daily to AFMA. Some fishers undertake multi-day fishing trips camped on remote islands. Previously, carrier vessels have operated in remote areas. Product is considered landed when brought to shore or transhipped to a carrier vessel.
	Daily logbook reporting	Fishers voluntarily fill in and submit Hand Collection Daily Fishing Logs (HC01).	The provision of detailed catch and effort information captured through HC01 logs will provide useful data for the fishery. Will be an added element industry can use to demonstrate their commitment to providing accurate and timely data on the fishery, despite not being mandatory.	Until the necessary legislative amendments are made to support mandatory daily fishing log reporting, there is a risk that no fishers will voluntarily complete them.

Catch Limits	Closure Trigger	Set a TAC trigger at which point the fishery will be declared closed to allow for all outstanding catch reports to be submitted. During the 2015 trial opening, there was a lag in catch reports being received by AFMA, as many fishers reported previous days' catches a number of days after they were caught.	Will mitigate the risk of over catching the TAC by having less reliance on accurate catch reporting.	May reduce the incentive for fishers and fish receivers to report their catch immediately and accurately. If reporting is effective fishers will forego catch.
	Precautionary TAC	Set a precautionary TAC that takes into account the risk of over catch. From the last Erub Workshop participants discussed setting the TAC at 10t rather than 15t.	Would mitigate potential stock impacts from of over-catching.	If reporting is effective fishers will forego catch (income).
Time and length of opening	Limited opening period	Instead of opening the fishery for 1 month or until the TAC is reached, set the opening for 3-4 days. The maximum daily recorded catch during the 2015 trial opening was 4.341 tonnes. Allowing for a 10% increase in fishers participating in the trial opening, the total catch expected over a 3 day period would be approximately 14 tonnes.	May mitigate the risk of over-catching by having less reliance on accurate catch reporting.	The pre-selected 3-4 day time frame for an opening may be impacted by weather variability (poor tides) and may be more difficult for fishers to participate given other commitments. It may not be possible administratively, alter the dates within a short-timeframe.
	Timing of opening	At the Erub Workshop participants discussed changing the season date to coincide with the opening of the TRL Fishery to reduce the number of fishers participating in the fishery. HCWG13 advised that any future trial opening should be in December.	At the HCWG13 members advised that a December opening allows people to earn an income before the Christmas period. This was identified as an important economic/social benefit consideration.	TRL fishers will have less opportunity to access the Fishery.
Improved Compliance Monitoring	Restricted Entry	a) Access to the opening is provided through developmental permits (discussed at the ERUB workshop) b) b) "Opt-in" – Subject to further consideration by AFMA - Fishers could be required to apply to	Could provide more accurate information on likely fishers and therefore assist in more effective compliance operations.	a) The developmental permit process is lengthy (can take at least 4-5 months to process) and subject to further AFMA consideration may

		AFMA to access the opening up until a particular date. After this time, no more applications for access are granted. A fishers application could require the fishers to advise on fish receivers they are likely to land they catch to. AFMA would produce a public list of 'black teat' fishers ahead of opening.	May reduce the risk of a sudden increase in the number of fishers fishing in the Fishery. This can increase compliance risks but also has been raised as a concern for fishers who fish more regularly fishers. Noting, the size of the available catch, limiting the number of fishers may be consistent with the objective to manage for optimum utilisation. When there are too many fishers compared to the available TAC, the risk of overcapitalisation and negative economic returns increases.	not be an appropriate administrative mechanism. b) Restricting Traditional Inhabitants access to Torres Strait Fisheries is inconsistent with current PZJA licencing policy. Any departures from this approach may not be supported by the PZJA and/or would require additional consultation and therefore time to progress.
	Restricted Landings	a) Restrict landings to specified communities or landing sites (e.g. criteria may be based on historic fishing areas and landings.). Discussed at the Erub Workshop. b) Restrict landings to specific fish receivers who meet specific criteria. Discussed at the Erub Workshop to be part of community-level plans.	Limiting landing locations assist compliance monitoring.	It is not clear that the Act supports restricting fishers to land to specific fish receivers or locations. Subject to further AFMA consideration. If the power clearly exists it may be difficult, therefore requiring more time to consider, to agree on fair and equitable criteria for determining who may be a fish receiver and the limited landing sites.
	Closure of Beche-de-mer Fishery after a Black Teatfish opening	Close the entire Torres Strait Beche-de-mer Fishery (i.e. all species) for one month once fishing for Black Teatfish is closed. This would assist compliance but not necessarily address catch reporting issues. Discussed at the Erub Workshop.	May assist with compliance in mitigating the further take of Black Teatfish after the agreed opening period.	Would limit ongoing economic opportunity for industry if entire fishery is closed.

	Prohibition on carrier boats	<p>Carrier boats should not be permitted to receive Black Teatfish. The Fishery should instead be a small boat fishery with fishers working from the community. Discussed at Erub Workshop.</p> <p>Note: Carrier vessels are subject to VMS (exemption available for carrier vessels under 6m) if receiving product must comply with the fish receiving reporting requirements.</p>	Would reduce competition for fishing operations that do work with a carrier operation.	Limits operational flexibility for fishers. Some fishers advise that carrier vessels allow timely processing of product therefore is value adding.
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Table 2. Timeline of the Black teatfish fishery closures and openings.

Year	Meeting	Fishery status	Details
2003	Pre-HCWG	Closed	Black teatfish found to be overexploited. PZJA agreed to shut the fishery.
2009	HCWG3	Closed	CSIRO presented early results of a survey of stock abundance of Hand Collectables fisheries in the eastern Torres Strait. Results indicated that the Black teatfish stock has recovered to near unfished biomass. CSIRO recommended a conservative TAC of 25 tonnes. This recommendation was contingent on appropriate management strategies being in place to reduce the risk of over fishing and localised depletion.
2011	HCWG5	Closed	HCWG recommended to TS Fisheries Management Advisory Committee a 15 tonne TAC for Black teatfish to be available for one month. The opening was recommended to occur during the Tropical Rock Lobster hookah season to limit the transfer of fishing effort, and was contingent on mandatory catch reporting being agreed to by the PZJA.
Nov 2014	NA	Open	The fishery was opened for the first trial in November 2014. The fishery was set to close either after a month or when the 15 tonne TAC was reached, whichever came first.
Apr 2015	HCWG8	Closed	Following the 2014 trial, the HCWG recommended that the trial arrangements be maintained as part of the re-development of the fishery. A second opening in November 2015 was agreed to under the same conditions of 15t TAC or one month. A further recommendation was that catch reporting levels needed to improve significantly (from 17.3%) for further trials to be considered. The number of fishers reporting their catches increased, however there were still issues with the timeliness of reporting.
Nov 2015	NA	Open	The second Black teatfish trial opening was conducted. The catch was not kept within the 15 tonne TAC and the fishery was closed after eight days. The reported total catch was 23 tonnes; which was 8 tonnes over the TAC.
Jun 2016	HCWG9	Closed	Recommended not to open the fishery again until measures were in place to significantly reduce the risk of overshooting the TAC. An action item from the meeting was to hold a workshop, with the support of AFMA and the TSRA, with industry representatives to consider immediate options to improve catch reporting, short, medium and long term management options.
Oct 2016	Industry workshop	Closed	Following the recommendation from the HCWG, an industry workshop was conducted on Erub Island. The workshop involved industry members, fishers and buyers, from the eastern islands. A range of views were put forward by industry at the meeting, with some fishers wanting the fishery to be opened again as soon as

Year	Meeting	Fishery status	Details
			<p>possible (1 December 2016 was suggested) and others who wished to develop better catch reporting and community-based management arrangements. Advice from the meeting included:</p> <ol style="list-style-type: none"> 1. The development of community management plans; 2. A desire to move towards catch share allocations for the five communities. This allocation would be further restricted to operators from those communities to be decided by the PBC, cultural protocols to be adhered to; 3. Improved catch monitoring, possibly via mandatory logbooks. <p><u>Recommendation:</u> a) each community develop their community catch monitoring arrangements in details, b) proposals include other community based management arrangements (ie catch allocations, control over who can fish, cultural protocols) be developed and adopted by industry agreement, and c) that these proposals be submitted to the Hand Collectables Working Group and PZJA.</p>
Nov 2016	HCWG10	Closed	<p>The outcomes from the Industry Workshop were considered. The HCWG noted its previous recommendation that the fishery remain closed until measures are in place to improve reporting.</p> <p><u>Recommendation:</u> Minimum requirements for allowing further fishing for black teatfish</p> <ul style="list-style-type: none"> - Development and implementation of community based catch monitoring arrangements (noting that in the short-term these systems would be voluntary) to be submitted by 30 November 2016; and - Implementation of a regulatory-based catch monitoring/reporting tool. The preferred tool being a mandatory fish receiver system.
Feb 2017	PZJA	Closed	<p>The PZJA formally agreed to keep the black teatfish fishery closed until the risk of exceeding the TAC set for the species is substantially reduced through cost-effective management tools.</p>
June 2017	HCWG11	Closed	<p>HCWG noted the out of session agreement that the Black teatfish fishery would remain closed until cost-effective management arrangements were in place that would reduce the risk of over catching the TAC.</p>
Oct 2017	HCWG12	Closed	<p>No formal recommendations were made. The HCWG reiterated the need to obtain reliable catch data and limit fishing effort to support a future opening.</p> <p>Mandatory fish receiver system was implemented on 1 December 2017.</p>
July 2018	HCWG13	Closed	<p>The WG recommended that AFMA prepare a proposal for the PZJA, for a Black Teatfish trial opening in December 2019,</p>

Year	Meeting	Fishery status	Details
			following consultation with communities about potential limited access for the five key eastern islands and to include a basis for scientific data to support the proposal after the finalisation of the harvest strategy.
Oct 2018	HCWG14	Closed	Industry members and observers agreed to the following performance targets to demonstrate improved catch reporting to the PZJA; a) 75 per cent of CDRs being submitted on time, by April 2019; and b) 100 per cent of CDRs being submitted on time by July 2019 Industry observers advocated for the development of an industry Memorandum of Understanding (MOU) that outlines what standards of data needs to be provided over to demonstrate improved catch reporting, as well as the details of the quarterly TAC management arrangements as proposed by industry observers.
Aug 2019	HCWG15	Closed	The Working Group recommended the PZJA consider a trial opening of the black teatfish fishery on 1 February 2020, contingent on the implementation of the beche-de-mer Harvest Strategy, and remaking of the Fisheries Management Instrument No. 15 (FMI No. 15); noting that HCWG Traditional Inhabitant members will undertake community consultation regarding constraining access of TIB licence holders to black teatfish resources through customary protocols and traditional lore, and collecting high resolution catch and effort data to complement the BDM stock survey and provide a CPUE baseline.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
Prohibition on hookah in the Beche-de-mer Fishery	Agenda Item 6 For DISCUSSION & ADVICE

RECOMMENDATIONS

1. That the Working Group:

- a. **NOTE** that the issue of permitting the use of hookah in the BDM fishery is a long standing issue, with strongly divided views among stakeholders;
- b. **NOTE** the views of Torres Strait communities on the use of hookah in the BDM fishery as discussed during PZJA Traditional Inhabitant member cluster consultations (Agenda Item 2.1);
- c. **NOTE** that HCWG15 (1-2 August 2019) recommended a discussion paper be developed to explore a longer term strategic approach to using hookah in the BDM fishery; and
- d. **RECOMMEND** that a discussion paper continue to be developed with input from a range of stakeholders to support a proposed BDM Fishery Future Management Priorities workshop.

KEY ISSUES

2. Some stakeholders have sought support for the use of hookah equipment for targeting white teatfish (only) in the fishery, due to its deeper water nature and difficulty in accessing by free-dive method.
3. HCWG15 noted that while some earlier concerns relating to sustainability and risk of over-exploitation by using hookah have been mitigated through the introduction of the BDM Harvest Strategy and the Fish Receiver System, there still remains divided stakeholder views on the matter. As such, some Working Group members supported a longer term, more strategic approach to address how the prohibition on hookah could be lifted and to ensure the views of all stakeholders could be considered.
4. Supportive of seeking a longer-term, more strategic approach to address the matter, AFMA considers the issues in using hookah to catch white teatfish to be three-fold:
 - a. **Consultation** – understanding opposing views among stakeholders and varying aspirations of Torres Strait communities which require further discussion among a broader group of stakeholders (i.e. beyond the HCWG's capacity).
 - b. **Equity and access** – permitting a specific gear type in certain areas of waters creates an issue of allocation of catch between individuals (or islands, cluster groups).
 - c. **Implementation** – ensuring appropriate regulation and integrity of the rules and the ability to monitor and enforce changed management arrangements results in increased compliance monitoring requirements and additional obligations on operators (i.e. Vessel Monitoring Systems).

5. AFMA and TSRA remain committed to progressing this matter and support broader stakeholder discussion to inform the development of a proposal to permit hookah in the BDM fishery. AFMA is proposing that a dedicated stakeholder workshop would help progress this issue and HCWG advice is welcomed on terms of reference to support this group.

BACKGROUND

6. The following broad management elements were suggested by some industry members at HCWG15 to be incorporated into a discussion paper:
 - a. The ability for all TIB licence holders to be able to use hookah;
 - b. To use hookah to fish for white teatfish only;
 - c. Use the TDB02 'areas fished' map to spatially exclude Area 16 from the use of hookah (as per the aspirations of Ugar and Erub communities);
 - d. Additional conditions imposed on reporting requirements;
 - e. Mechanisms for ensuring compliance and enforcement of the rules;
 - f. Consideration for a trial basis – allowing a period of review to understand and mitigate against any unexpected outcomes;
 - g. Suggestion to use moon-tide closures;
 - h. Consider the change in management arrangements in the context of the Harvest Strategy and apply the same logic for re-opening a closed species and a 'higher bar' of management standards and additional conditions; and
 - i. Comprehensive consultation with broader communities before implementing the proposed change;
7. This issue has been discussed at several previous Working Group meetings, where the HCWG has:
 - a. noted a proposal from Mer industry to use hookah in Mer waters to fish for white teatfish
 - b. noted AFMA has written to all licence holders to seek their views on amending the hookah ban for a limited number of fishers to target white teatfish
 - c. noted differing opinions from stakeholders and communities about the proposed use of hookah in the fishery, with a strong preference from some communities that it not be undertaken in their waters or at all
 - d. noted concerns about the sustainability impacts of the use of hookah for targeting BDM species, and the risks related to current poor levels of catch reporting in the fishery
 - e. discussed current QLD management arrangements, and whether it is suitable as a basis for a possible future management model.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
Research Update	Agenda Item 7 For DISCUSSION & ADVICE

RECOMMENDATIONS

1. That the Working Group:
 - a. **DISCUSS** and provide **ADVICE** on the research pre-proposal 'Determining weight conversion ratios for curryfish species *Stichopus herrmani* and *S. vastus*'; and
 - b. **NOTE** the update on the current 2020-21 The Torres Strait Scientific Advisory Committee (TSSAC) funding cycle.

KEY ISSUES

2. The annual TSSAC call for research pre-proposals opened on 9 December 2019, with three scopes for tactical research projects being circulated to address research priorities identified for potential funding in 2020-21.
3. The research scopes in this year's annual call are summarised in the table below, and a copy of the full scopes is provided at **Attachment 7a**.
4. A research pre-proposal has been submitted to address the research scope for the Beche-de-mer Fishery (**Attachment 7b**) and the Working Group's feedback on the application is being sought for the TSSAC's consideration at its March 2020 meeting. A feedback form that outlines the assessment criteria is also provided at **Attachment 7c**.

Fishery	Research Scopes
Beche-de-mer Fishery	Determining weight conversion ratios for curryfish species <i>Stichopus herrmani</i> and <i>S. vastus</i> .
Finfish Fishery	Torres Strait Finfish Fishery Spanish Mackerel Biological Sampling
	Torres Strait Finfish Fishery Coral Trout Catch Per Unit Effort Standardisation

5. The above listed beche-de-mer fishery scope was generated following HCWG advice on research priorities for Hand Collectable Fisheries as outlined in the Five Year Research Plan (**Attachment 7d**).

BACKGROUND

6. The TSSAC is a Protected Zone Joint Authority advisory body. The TSSAC provides guidance on fisheries related research priorities and assesses proposals for Torres Strait Fisheries research each year. Research priorities have been identified by individual fishery Resource Assessment Groups (RAGs), Working Groups (WG) and Management Advisory Committees (MACs).

7. Research funding proposals are assessed in two stages by the TSSAC, through pre-proposals, then successful applicants will be asked to submit full proposals.
8. Approximately \$365,000 of a possible \$411,000 of TSSAC research funds for the 2020-21 financial year is already committed. This leaves the TSSAC with approximately \$45,000 for urgent tactical research projects during the 2020-21 financial year.

2020-21 TSSAC Research Scopes

Torres Strait Finfish Fishery Spanish Mackerel Biological Sampling

Project Need: The Torres Strait Finfish Fishery Spanish mackerel stock assessment is based on commercial catch rate data and is used to identify the annual sustainable harvest for the Fishery. A declining catch rate is evident from recent updates to this assessment. Prior to the current fishing season, catch at age and length data had not been collected for some time (most recent ageing data before this was from 2005). These are important inputs into the stock assessment which help to improve our knowledge of the status of the stock. Samples being collected now, as a part of the project *Enhancing biological data inputs to Torres Strait Spanish Mackerel stock assessment* (project number: 2019/0832) will be incorporated into the next stock assessment. To support ongoing improvement in the assessment however, further samples are required. The FFRAG have recommended samples be collected for a minimum of three more years to produce a good time series.

Desired outcomes:

In consultation with AFMA and Finfish Fishery Resource Assessment Group (FFRAG) and stock assessment team:

- Continuation of the data collection and ageing program established through the AFMA funded project titled: *Enhancing biological data inputs to Torres Strait Spanish Mackerel stock assessment* (project number: 2019/0832), for the 2020-21 fishing season, with options of the 2021-22 and 2022-23 fishing seasons; and
- Delivery of ageing and length frequency data plus associated report, to AFMA within an agreed timeframe.

Extension option – although Spanish mackerel biological data is the priority for this project, the TSSAC would like proposals to include an option to collect the same biological data for coral trout as well. Costings should be provided for Spanish mackerel data collection alone, and separately for adding on coral trout data collection and otolith preparation and age analysis.

Applicants wishing to submit a proposal can contact AFMA for further information on the sampling regime.

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Torres Strait Finfish Fishery Coral Trout Catch Per Unit Effort Standardisation

Project Need: The first formal stock assessment for Torres Strait Coral trout was completed in 2019. The assessment was accepted as preliminary noting the stage of development of the assessment and the range of uncertainties within the assessment. Future development of the preliminary stock assessment, including inputs, is a priority to provide greater certainty in our understanding of the stock status and in doing so, potentially support future growth in the Fishery.

Catch Per Unit Effort is an important input into the assessment and may be used to monitor the performance of the Fishery in years without a full assessment being undertaken. Having an agreed CPUE standardization is the first necessary step towards using CPUE to inform management decisions. Nominal CPUE (not standardised) is unlikely to be a reliable indicator of coral trout stock status.

A small project is required to further refine the current CPUE standardisation methods and to update the CPUE time series with new catch and effort data.

The output from this CPUE standardisation will be used to inform advice on sustainable catch limits for the 2021-22 season.

Desired outcomes:

In consultation with AFMA and Finfish Fishery Resource Assessment Group (FFRAG), delivery of an updated CPUE series for coral trout to AFMA and the FFRAG by September 2020. The CPUE series is to be based on:

- any recommended refinements of the CPUE standardisation methodology developed through the AFMA funded project: *Harvest Strategy of the Torres Strait Finfish Fishery* (project number: 2016/0824); and
- all available catch and effort data.

Contacts:

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Committee

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Determining weight conversion ratios for curryfish species *Stichopus herrmani* and *S. vastus*.

Project Need: Total Allowable Catch (TAC) limits in the Torres Strait Beche-de-mer Fishery (BDM Fishery) are defined as the total allowable weight, in wet weight gutted form, that may be taken. Commercial catches of sea cucumbers however can be landed and reported in a range of processed forms varying from wet gutted, boiled, boiled and salted and sometimes dried. Agreeing on the relationships (known as weight conversion ratios) between the reported weights of sea cucumbers at these various processing stages is necessary to monitor reported catches of beche-de-mer against TACs in a standard unit of gutted wet weight.

AFMA applies weight conversion ratios for most species based on analysis and advice from CSIRO, however where there is no information available for certain species, AFMA currently applies proxy conversion ratios by using the most conservative ratio for that same processing method available for another species.

Currently, there are critical conversion ratio information gaps for curryfish species (*Stichopus herrmani* and *S. vastus*). Given the increased level of targeting on curryfish species in recent years, understanding these uncertainties is critical in ensuring accurate catch monitoring for these species and understand total catch to inform stock assessments.

Desired Outcomes:

Conversion ratios determined based on field sampling of curryfish species (*S. herrmani* and *S. vastus*) for various processed forms to wet weight gutted form.

Contacts:

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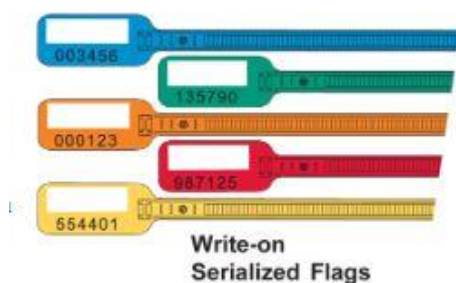
Lisa Cocking
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Beche-de-mer Processing Instructions

It is important that the relationship between measurement of sea cucumbers in different stages of processing, from live product to dried and ready for market be determined. This allows data from different processing states to be converted and used for tracking species TAC.

1. Please fill in your name, date and location.
2. Identify sea cucumber to species (ID guide provided).
3. Insert sea cucumber identification tag by making a small incision in the animal eg. near anus, and tighten. Cut off extra tag length if needed to avoid damaging the animal and note down tag number.

*Identification tags will allow individual sea cucumbers to be tracked through processing stages to final product (tags have been heat tested and can be boiled).



4. Measure the length of the individual using ruler and note down.
5. Weigh individual using the digital scales and note down.
6. Begin processing - note down the *weights* or *lengths* for each step in the processing stage for the individual animal eg. Gutted Length, Gutted Weight etc.
7. Extra columns 'Other' have been added at the end of the survey sheet to record any extra processing steps that have not been included eg. Second Boil – Weight and Length.

Torres Strait Scientific Advisory Committee research application

Please indicate the type of application you are submitting – an EOI in response to a call for research; or a full proposal in response to TSSAC advice that your initial application has been approved for further development:

X

Pre-proposal (Please complete Sections 1-4 inclusive)

Full Research Proposal (Please complete sections 1-8)

SECTION 1 - ADMINISTRATIVE SUMMARY

Project title:	Determining conversion ratios for Curryfish species
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Applicant (organisation or person):	CSIRO Ocean & Atmospheric Research
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Contacts

Administrative

Title/Name:	Bonnie Lau	Phone:	08 6436 8614
Position:	Finance Advisor	Email:	bonnie.lau@csiro.au
Organisation:	CSIRO Oceans & Atmosphere	Postal address	GPO Box 1538 Hobart, TAS 7001

Principal Investigator (person)

Title/Name:	Nicole Murphy	Phone:	07 3833 5948
Position:	Experimental Scientist	Email:	nicole.murphy@csiro.au
Organisation:	CSIRO Oceans & Atmosphere	Postal	Queensland BioSciences Precinct

Co-investigator (s)

Title/Name:		Phone:	
Position:		Email:	
Organisation:		Postal	(QBP)

Co-investigator (s):

Title/Name:		Phone:	
Position:		Email:	
Organisation:		Postal	

Planned Start and End Date

Start Date:	15/07/2020	End Date:	20/06/2021
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SECTION 2 – PROJECT DESCRIPTION

PROJECT BUDGET: (Excluding GST)

Financial Year	AFMA	Applicant (in kind)	Applicant	Other
2020/21	\$11,969.00	\$5,129.00		\$0.00
	\$0.00	\$0.00		\$0.00
	\$0.00	\$0.00		\$0.00
Totals	\$11,969.00	\$5,129.00		\$0.00

SECTION 3 – PROJECT DESCRIPTION

Background and need (max 250 words) - *detail any important background relating to the project. Why it is important and being proposed (need). Any related projects or other information the TSSAC should know when considering it for funding.*

Survey stock weight estimates and fishery catch data from the Torres Strait sea cucumber fishery can be recorded in a number of processed states from whole live to fully processed (dry). Survey stock size is usually calculated as live weight, and fishery catch weight data may be reported in several processed stages (e.g. Live, Green gutted, Salted, Boiled and salted, Boiled and frozen, Fully processed). The fishery is managed (e.g. TACs, trigger limits) using “landed” (wet gutted) weight, therefore the relationship between the weights of sea cucumbers at these various processing stages is an important tool in sea cucumber fishery management.

A wide range of locally relevant conversion ratios has been provided by CSIRO over the years suitable for converting weights from surveys and fishery data to the required management weight metric for the Torres Strait sea cucumber fishery (e.g. Skewes et al., 2004). A recent compilation and update of sea cucumber weight conversion ratios was also conducted for the recently completed Torres Strait Beche-de-mer Harvest Strategy (Plagányi et al., 2019). This review, and information from fishers and management agencies, indicated that a critical conversion ratio information gap occurs for curryfish, which is a newly targeted species group that require specialised processing upon capture due to their tendency to easily disintegrate. This usually requires an early boil and then salting of the animal before it can be weighed. The new curryfish processing stage will require a new conversion ratio: Wet-boiled-salted so that fishery catch data can be converted to standard (wet gutted) weight for application of management rules.

This project will fill information gaps in conversion ratio data for new priority BDM fishery species of curryfish *Stichopus herrmanni* and *Stichopus vastus* and will also provide information on newly developed processing techniques for these species. Though conceptually straight forward, gathering these data is not easy. Connections to local fishers is critical, and understanding of local conditions and processes is also essential.

Objectives / performance indicators (max 250 words) - *list the major objectives or planned outcomes of the project. These will form your project milestones:*

Accurate conversion ratios are required to determine total catches in a standard unit (e.g. wet gutted or landed weight) from data that records catch weight in several different processing stages, to enforce TACs and for stock assessments and implementation of the new harvest strategy.

Deliverables:

1. Fill information gaps in conversion ratio data for new priority fishery species of curryfish, *Stichopus herrmanni* and *Stichopus vastus*, including for newly developed processing techniques for these species.
2. Inclusion of other BDM species where possible to value add and inform on current conversion ratio information.
3. Review current conversion ratio scientific literature for updating other BDM species values.
4. Provide anecdotal information from fishers on BDM catch to inform management and input into the Beche-de-mer Harvest Strategy.
5. Information from the project will be provided to AFMA and Torres Strait Island stakeholders in the form of formal final reports and a plain English summary document. Special consideration will be taken with Traditional Knowledge (TK).

Consultation and Engagement - *Note consultation is required for both the pre- and full-proposal phases for TSSAC projects. This differs from AFMA Research Committee Proposal requirements.*

Pre-proposal phase consultation

Briefly detail (this will form the skeleton of your community engagement strategy which must be developed as part of full proposal phase):

- *the areas in the Torres Strait region where the proposed research activities may occur*
- *the Torres Strait community groups or individuals that you will engage/involve from these areas in the development of and or during the project if it reaches full proposal phase (refer to Step 2 of Attachment A - Procedural Framework for Researchers in the Torres Strait).*
- *how you plan to engage/involve key stakeholders (e.g. community notices, telephone, email, employment, interviews, meetings, workshops) in the project development. Note, any potential fee for service rates need to be factored into your research project budget.*

*If there has been any initial consultation and engagement outline with whom and key outcomes (note consultation is **not** necessary at the EOI stage but has sometimes occurred through existing relationships).*

CSIRO has carried out research on the Torres Strait Beche-de-mer Fishery since 1995. As part of this work, the principal investigator (Nicole Murphy), has 15 years experience working on the Torres Strait Beche-de-mer fishery and Tropical Rock Lobster fishery, including regular consultation and communication with traditional owners.

Previous BDM fishery research has included a high level of interaction with Torres Strait Islanders. This research has been communicated to Torres Strait islanders through TSHCWG meetings, dedicated Island workshops and supply of appropriate communication material for conveying the outcomes of research projects to islander communities. Our belief is that there is a high level of awareness of the need for this research among traditional owners. Any future research will be conducted at the same level of consultation with respect to community desires.

As part of the development of the Torres Strait BDM Harvest Strategy, sea cucumber conversion ratio processing packs were provided to a number of interested Traditional Owners at the last Beche-de-mer Harvest Strategy workshop and meeting, in October 2018, with the aim of collecting conversion ratio information for curryfish species. Subsequent follow up did not result in data as fishing effort in communities had largely been directed towards other species due to a variety of factors.

The initial plan will be to invite two Traditional Owners who volunteered to provide conversion ration data to be further involved in this work, which may include fishers from the Islands of Ugar, Poruma and Mer. We propose payment for identified fishers to work with the researcher to obtain and update conversion ratio information for commercial BDM species in Torres Strait.

Full proposal consultation and engagement

In accordance with the Procedural Framework for Researchers in the Torres Strait (Nakata 2018; Procedural Framework), the TSSAC full proposal requires two different aspects be completed.

1. Develop a stakeholder engagement strategy, including a plain-English community consultation package which should be used to undertake preliminary consultation with relevant stakeholders as part of your full proposal application. Follow instructions in Appendix 4 of the procedural framework ([Attachment A](#)).

2. Provide documentation and outcomes from the preliminary consultation and engagement conducted, including:

- *The level of stakeholder support – particularly from Traditional Inhabitants for the proposed work (include a list of who was contacted and whether they support the project, or if not, why).*
- *Any perceived risks or stakeholder considerations with the project.*
- *How traditional knowledge might be considered or incorporated to enhance the project, its outcomes and benefits.*
- *Any activities suggested by Traditional inhabitants to improve the project, or bring it into alignment with community needs.*
- *How the research outcomes will benefit Traditional Inhabitants directly or indirectly, or why it is not relevant/applicable (i.e. projects in the prawn fishery).*

Attach the stakeholder engagement strategy (which should have been updated as required following initial consultation) with your full proposal application.

Methods (max 250 words) – Please detail the basic methods that will be used to undertake this project.

As part of the development of the Torres Strait Beche-de-Mer Harvest Strategy, sea cucumber conversion ratio processing packs were provided to a number of interested Traditional Owners at the last Beche-de-mer Harvest Strategy workshop and meeting, in October 2018, with the aim of collecting conversion ratio information for curryfish species. Subsequent follow up did not result in data as fishing effort in communities had largely been directed towards other species due to a variety of factors.

These conversion ratio processing packs included detailed information, data sheets, stationery and scales. A question and answer session was undertaken with the TO's where it was demonstrated how to measure and weigh sea cucumbers and record data.

Information, including lengths and weights for beche-de-mer at different processing states will be collected from tracking species individuals through the processing chain. Individuals will be tagged by attaching numbered tags (heat tolerant plastic zip lock) and length and weights recorded (see Appendix A & B). The relationship between processing states will be investigated using regression analyses. Recovery rates will be calculated from average change in weight for individuals of each species during the processing train. Conversion ratios will be determined from linear regression, with individual data points weighted by individual animal weight of the independent parameter in the regression.

This proposed project work will focus on engaging two Traditional Owners who previously volunteered to provide conversion ratio data to be further involved in this work from the Islands of Ugar, Poruma or Mer and will build upon BDM Harvest Strategy project outcomes. We propose payment for identified fishers to work with the researcher to obtain and update conversion ratio information for commercial BDM species in Torres Strait.

The high priority species of Curryfish, *Stichopus herrmanni* and *S. vastus* will be targeted and where possible, information gaps or updating of values will be captured for other commercial Beche-de-mer species. This will be co-ordinated between Islands.

Planned outcomes and benefits (max 150 words) – this should include how the research will be used by management to benefit the fishery and other stakeholders:

Accurate conversion ratios are required to determine total catches in a standard unit (e.g. wet gutted or landed weight) from data that records catch weight in several different processing stages, to enforce TACs and for stock assessments.

This project will fill information gaps in conversion ratio data for new priority Beche-de-Mer fishery species of curryfish - *Stichopus herrmanni* and *Stichopus vastus* and will also provide values for newly developed processing techniques for these curryfish.

Torres Strait Islander representatives have been closely involved in Hand Collectable Working Group meetings for their fisheries and this presents a highly valuable opportunity for Traditional Owners to work with researchers and take their experience and knowledge back to their community.

This research will follow on from previous Beche-de-mer Harvest Strategy project work and will directly inform management decisions and possible future fishery expansion. It will also provide an operating framework for broader application to the fishery.

Project extension (max 100 words) - are there possible future research options that could result from this project?

There is a high probability of future research resulting from current Beche-de-mer research, and as part of the implementation of the newly endorsed Beche-de-mer Harvest Strategy for Torres Strait.

Risk Analysis - be sure to consider risks specific to conducting research in the Torres Strait including community support or lack thereof.

CSIRO have successfully carried out a number of research projects in Torres Strait, as well as in areas across northern Australia and in PNG. The investigator has extensive experience working on the Torres Strait Beche-de-mer fishery, including regular consultation and communication with Traditional Owners.

Related Projects and Research Capacity (max 100 words) - *Are there any past or current projects relevant to this proposal funded through the TSSAC, TSRA, FRDC or other organisation? Outline the Investigators' experience in the proposed research and Torres Strait region.*

This project builds on work undertaken as part of the newly endorsed Beche-de-Mer Harvest Strategy for Torres Strait.

Beche-de-mer research in Torres Strait has included a number of projects undertaken from 1995 to the present day. As part of this work, the principal investigator (Nicole Murphy), has 15 years experience working on the Torres Strait Beche-de-mer fishery and Tropical Rock Lobster fishery, including regular consultation and communication with traditional owners.

SECTION 4 - Schedule of Payments

As a general rule, up to 10% of the total project cost may be provided as an initial payment and a minimum of 30% of the total project cost must be left for the final report.

Milestones	Deliverable date (Please refer to)	Schedule of AFMA payment(s) (excluding
Initial payment on signing of contract	On signing	\$1,196.90
Payment of two Traditional Owners	1 February 2021	\$2,132.40
Updated conversion ratio table of results	1 March 2021	\$2,524.50
Draft final report	1 May 2021	\$2,524.50
Final report	20 June 2021	\$3,590.70
TOTAL		\$11,969.00

SECTION 5 - Description of Milestones

Details on each milestone must provide sufficient information to justify the milestone cost and should match the performance indicators. The description field will describe the work to be completed for that milestone with the justification field elaborating further on the categories of cost - for example salary.

Milestone:

Date:

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Description:

Justification:

Milestone:

Date:

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Description:

Justification:

Milestone:

Date:

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Description:

Justification:

Milestone:

Date:

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Description:

Justification:

Milestone:

Date:

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Description:

Justification:

Milestone:

Date:

Financial Year	Salaries	Travel	Operating	Capital	Total
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Description:

Justification:

Section 6 – Special Conditions

If relevant, this field will be used to assist in contract preparation for any special conditions. Examples of special conditions

may relate to marine spatial closures (including access) or any other clauses not specifically contained in the contract.

Section 7 - Data management

Identify the appropriate Intellectual Property category applicable to this application. Choose ONE from below:

Code	Description
1	Published, widely disseminated and promoted, and/or training and extension provided. Relates mainly to outputs that will be available in the public domain.
2	Published, widely disseminated and promoted, and/or training and extension provided. Related products and/or services developed. Relates mainly to outputs that will largely be available in the public domain, but components may be commercialised or intellectual property protected.
3	Published, widely disseminated and promoted, and/or training and extension provided. Related products and/or services developed. Relates mainly to outputs that may have significant components that are commercialised or intellectual property protected.

The following IP category applies to this application:

I have searched for existing data (refer to guidelines on how to search the Australian Spatial Data Directory and Oceans Portal):

[Yes / No]

Provide a brief description of the data to be generated from the project and how this data will be stored for future protection and access, including:

- information on data security or privacy issues and applying to the data
- Nominated data custodian

- Document how research data, traditional knowledge and intellectual property will be handled during your project, including but not limited to:
- Acknowledging where the data or information used in research comes from, so that any income made from selling a concept in the future will be adequately linked to a community's contribution/knowledge so they also receive financial or other benefit from "selling" a concept onward.
- How you will negotiate use and publish of traditional knowledge with communities. For example do traditional inhabitants allow public publication of information or only for project activities and reported on in internal reports? This will depend on data sensitivity and privacy (such as fishing grounds etc).
- Are there any other ethical considerations you have identified for this project which need to be managed?
- Are you committed to gaining ethics approval for this project from a suitable body such as a university or AIATSIS?

TSSAC full proposal assessment criteria

Attractiveness	Does not meet	meets	exceeds	Not applicable to this project	Comments (is there anything that needs changing to address this criteria better in the proposal/ project?)
1. Is there a priority need for the research (does it align with the Torres Strait Strategic Research Plan and Annual Research plan)?					
2. Is/are the end-user/s identified?					
3. Do the outcomes have relevance and are they appropriate to the end-users?					
4. Should the outputs contribute towards outcomes and are they measureable?					
5. Cost benefit analysis. Research projects are to be prioritised and funded in accordance with the need, risk, cost and expected benefits of the research to the fishery, ecosystem, industry and broader community.					
6. Does the proposal actively engage Traditional Inhabitants and Torres Strait Islanders in the research?					
7. Are there employment opportunities for Traditional Inhabitants and Torres Strait Islanders?					
8. Does the research contribute to the knowledge that underpins ecosystem based fisheries management (EBFM) to improve the quality of decisions made?					
9. Does the project involve capacity development for Communities? If so, TSSAC to discuss if there funding from other agencies such as the IRG or TSRA that could support this project.					

Feasibility					
10. Does the applicant and their team / resources have the capacity to produce the outputs?					
11. Is the budget appropriate to meet the outputs and outcomes?					
12. Does the proposal outline a coherent strategy surrounding data collection, analysis, and storage?					
13. Does the proposal include appropriate plans (for example, adoption, communication and/or commercialisation plans) to ensure that the full potential of the research is realised through adoption of research outputs by end-users?					
14. Are the methods scientifically sound, well described and consistent with the projects objectives?					
15. Research will be most effective when there is effective engagement with fishery stakeholders, particularly Traditional Inhabitants of the Torres Strait, and where the research has widespread stakeholder support (refer to procedural framework for undertaking research in the Torres Strait and the TSSAC research application). Does the project identify the key stakeholders and how they will be consulted regarding the project in a culturally appropriate way?					
16. Consistent with the legislative responsibilities of the PZJA, the TSSAC will not deal with aquaculture research except for where there would be potential aquaculture/wild-stock interactions.					



Five-year Research Plan 2020/21 – 2024/25

Torres Strait Hand Collectable Fisheries

Beche-de-mer

Pearl shell

Trochus



**COMPILED BY THE HAND COLLECTABLES WORKING GROUP
(HCWG15)**

September 2019

ABOUT THIS PLAN

The Torres Strait Scientific Advisory Committee (TSSAC) seeks input from each fishery advisory body (Resource Assessment Group (RAG), Management Advisory Committee (MAC) or Working Group (WG)) to identify research priorities over five year periods from 2020/21 to 2024/25. This template is to be used by the relevant advisory body to complete their five-year plan. The plans are to be developed in conjunction with the TSSAC Five-year Strategic Research Plan (SRP) with a focus on the three research themes and associated strategies within the SRP.

All fishery five-year plans will be assessed by the TSSAC using a set of criteria, and used to produce an Annual Research Statement for all Torres Strait fisheries.

The TSSAC then develop scopes for the highest ranking projects in order to publish its annual call for research proposals. There are likely to be more scopes that funding will provide for so TSSAC can consider a number of proposals before deciding where to commit funding.

The fishery five-year plans are to be reviewed and updated annually by the Torres Strait forums to add an additional year onto the end to ensure the plans maintain a five year projection for priority research. Priorities may also change during the review if needed.

Table 1. Research priorities for Torres Strait Hand Collectable Fisheries for 2020/21 – 2024/25.

Proposed Project	Objectives and component tasks	Year project to be carried out and indicative cost					Other funding bodies		Evaluation		
		2020/21	2021/22	2022/23	2023/24	2024/25	Notes on project timings		Priority essential /desirable	Priority ranking (1-5)	Theme
Stock Status Survey*	To undertake a stock survey of all Torres Strait beche-de-mer species with a focus on deeper water species	\$81,598					Endorsed by TSSAC – survey work expected to commence in early 2020	TSRA (primary) CSIRO (in-kind)	Essential	2	1
Ecological Risk Assessment (ERA)*	Conduct an ERA for the TSBDM Fishery						Nil	CSIRO (in-kind)	Desirable	3	1
Climate Change impacts and vulnerability*	Scoping study across all Torres Strait								Desirable	3	1
Understanding critical uncertainties for Torres Strait species and processing methods for all species	Undertake field sampling of BDM species to develop conversion ratios for boiled and salted weight to gutted weight.		\$12,000						Essential	1	1
Management Strategy Evaluation (MSE) of the Beche-de-mer Harvest Strategy	1. Collate all data and biological information; 2. Update and extend the spatial multispecies TS BDM operating model developed earlier (or construct a new model); 3. Use MSE to evaluate how well the HS achieves the pre-specified objectives; 4. In consultation with stakeholders, use the MSE framework to investigate ways to improve the current HS.				\$130k ^		Will require 3-5 years of BDM HS implementation before MSE testing is achievable. However, can be undertaken sooner if external pressure requires (e.g. CITES Appendix II listing)		Essential	2	1

Promoting social benefits and economic development of hand collectable fisheries	Assessing the socio-economic value of beche-de-mer, trochus and pearl shell fisheries & identifying opportunities to increase economic benefits.			Not costed					Essential	3	2
Improving best practice processing methods of beche-de-mer	Understanding and improving industry processing methods to achieve higher market prices (particularly for lower value species)	Not costed - advice pending					Subject to broader collaborative funding		Desirable	4	3
Ecological Risk Assessment (ERA)	Conduct an ERA for the Torres Strait Pearl Shell (TSPF) Fishery			\$20,400			Nil	CSIRO (in-kind)	Desirable	5	1
Understanding biological parameters of BDM species, including growth, mortality, size and breeding seasonality.	Identifying gaps in knowledge of biological parameters of BDM species and investigating options for collaborative research	Difficult to cost due to lack in feasible methodologies							Desirable	5	1

Notes

* Light blue shaded projects are underway, funded in 2019/20 financial year.

^ Advice from CSIRO: Rough costing takes into account time needed to collate all fishery-dependent and fishery-independent data, develop and refine existing operating model and MSE framework, costs of attending at least 2 meetings to consult with stakeholders

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
PEARL SHELL AND TROCHUS FISHERIES	Agenda Item 8 For DISCUSSION

RECOMMENDATIONS

1. That the Working Group **NOTE** any verbal updates provided by Working Group members on recent activities or fishing trends relating to the Torres Strait Pearl shell and Trochus fisheries.

KEY ISSUES

2. HCWG15 at their meeting on 1-2 August 2019 requested that Pearl shell and Trochus fisheries be re-added to the agenda for future HCWG meetings.
3. AFMA understands both fisheries to have little to no fishing activity in recent years.
4. No commercial catches of trochus or pearl shell have been reported to AFMA through the Fish Receiver System during the 2019 fishing season with limited activity reported in the pearl shell fishery reported since 1 December 2017.
5. As at 16 January 2020, the following number of TIB licences had pearl shell (PL) or trochus (TR) fishery entries:

Fishery	Number of TIB fishery entries	Number of TVH licences
Pearl Shell	75	4 primary/tender packages 3 individual licences 6 held in trust by the TSRA
Trochus	83	0

6. The Working Group is asked to provide any updates on the status of the two fisheries, or raise any strategic issues, including economic trends, affecting the level of participation in both pearl shell and trochus fisheries.

BACKGROUND

Pearl Shell

Minimum size limit trial with developmental permits

7. Following a recommendation from the HCWG in 2013, the PZJA agreed to issue developmental permits to existing licence holders for the taking of undersized pearl shell (*Pinctada maxima*). The objective of the permits was to support revitalisation of the Torres Strait pearl farming industry by developing a commercial trial to investigate whether using smaller shell for seeding and culture could increase the overall productivity of pearl farming. At the time, industry considered that smaller shell enabled them to maximise their seeding cycle potential due to more cycles, with the later seeding cycles producing larger and more valuable products.

8. Eight existing licence holders were subsequently issued developmental permits in 2015 with a competitive total allowable catch set of no more than 2,000 undersize pearl shell size between 100-130 mm to be taken within the allocated period of one year. Mandatory catch reporting of harvested pearl shell was a condition of the permit. Only two of the eight permits issued were active during the trial.
9. In 2017, AFMA undertook a review of the developmental permit trial in an effort to understand the low uptake of developmental permits that were issued.
10. Through interviews with permit holders and buyers, AFMA understood that:
 - a. Approximately 800 pearl shell was reported to have been harvested during the permit period, with roughly 15-20% comprised of shell between 100-130 mm.
 - b. The pearl shells harvested were used for seeding in aquaculture but due to the low level of undersize pearl shell harvested, any benefits to the aquaculture sector in relation to any improvement in profitability could not be determined.
 - c. The primary reason as to why there is little interest in fishing the TSPSF by both TIB and TVH fishers is due to more lucrative opportunities in other Torres Strait fisheries (e.g. TRL).

Management arrangements

11. The gold-lipped pearl shell (*Pinctada maxima*) and to a lesser extent the black-lipped pearl shell (*Pinctada margaritifera*) are the main species targeted in the Torres Strait, although five other species occur.
12. Pearl farms purchase product from fishers for use in seeding for the production of pearls and also for use in making other shell products such as jewellery.
13. There are a range of input controls that apply to the Pearl Shell fishery, including:
 - d. Minimum shell size limits which are aimed at ensuring the most suitable shells are taken for farming and affording some protection to young shells and spawning stocks; and
 - i. *Pinctada maxima* must be >130mm and <230mm;
 - ii. *Pinctada margaritifera* must be > 90mm
 - b. Gear restrictions; shell can only be harvested by diving or collected by hand.
 - c. Boat length restrictions; boats must not exceed 6m in length.
14. The fishery is regulated through Torres Strait *Fisheries Management Instrument No. 7 (Torres Strait Pearl Shell Fishery)*.

Trochus

Management arrangements

15. Many of the management arrangements applicable to the fishery are set out in *Fisheries Management Notice (FMN) No 76* and include:
 - a. The taking of trochus is restricted to hand collection or by hand-held non-mechanical implements.
 - b. The use of underwater breathing apparatus is not permitted.

- c. A minimum size limit of 80 millimetres and maximum size limit of 125 millimetres applies to all fishing (except traditional).

16. The total allowable catch for the TSPZ is 150 tonnes.

Strategic assessment

17. On 12 April 2017, the Australian Fisheries Management Authority (AFMA) submitted an application on behalf of the Torres Strait Protected Zone Joint Authority (PZJA), for assessment of the Torres Strait Trochus Fishery under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as a Wildlife Trade Operation (WTO).
18. The Department of the Environment and Energy (DOEE) assessed this application against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. Public consultation on the application was undertaken between 26 April to 31 May 2017. No comments were received.
19. The Torres Strait Trochus Fishery targets a single trochus species, *Tectus niloticus*, using hand-collection and diving in the Torres Strait Protected Zone. Historically this fishery has been declared as a WTO. However, there has been no commercial fishing activity in this fishery since 2010. While there is no effort in the fishery, it does not pose any ecological risks.
20. The DOEE recommends that the fishery be exempt from the export requirements of the EPBC Act and product derived from the fishery be included on the List of Exempt Native Specimens until 9 October 2026. Should fishing effort increase in the Torres Strait Trochus Fishery, the DOEE will reassess the fishery.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
OTHER BUSINESS	Agenda Item 9 For DISCUSSION

RECOMMENDATION

1. That the Working Group **NOMINATE** any further business for discussion.

TORRES STRAIT HAND COLLECTABLES WORKING GROUP	Meeting 16 21 February 2020
DATE AND VENUE FOR NEXT MEETING	Agenda Item 10 For DISCUSSION

RECOMMENDATIONS

1. That the Working Group **NOMINATE** a date and venue for the next meeting noting proposed meeting dates in the table below alongside key business items.

Proposed Date	Key Business
Week beginning 3 August 2020	HCWG 17 <ul style="list-style-type: none"> - Final outcomes of BDM stock survey results - Overview of black teatfish opening (TBC) - Final catch and effort summary of 2019
Week beginning 3 August 2020	Future management priorities workshop <ul style="list-style-type: none"> - Including longer term strategic discussions on the use of hookah in the BDM fishery
Week beginning 5 October 2020	HCWG 18 <ul style="list-style-type: none"> - Advice on BDM total allowable catch (TAC) limits for 2021 season - Other matters to be confirmed.