



Australian Government

Australian Fisheries Management Authority

Northern Prawn Fishery Resource Assessment Group (NPRAG) Meeting

Meeting Minutes

Date: 21 Feb 2019

Venue: Brisbane Riverview Hotel

Attendees

Name	Member type e.g. industry member
<i>Ian Knuckey</i>	<i>Chair</i>
<i>Phil Robson</i>	<i>Industry Member</i>
<i>Ian Boot</i>	<i>Industry Member</i>
<i>David Brewer</i>	<i>Scientific Member</i>
<i>Rik Buckworth</i>	<i>Scientific Member</i>
<i>David Power</i>	<i>AFMA Member</i>
<i>Steve Bolton</i>	<i>Observer – AFMA, NORMAC member, NPF Senior Manager</i>
<i>Stephen Eves</i>	<i>Executive Officer - AFMA</i>
<i>Robert Curtotti</i>	<i>Observer – ABARES</i>
<i>Annie Jarrett</i>	<i>Invited Participant – NPFI</i>
<i>Adrienne Laird</i>	<i>Observer – NPFI</i>
<i>Claire van der Geest</i>	<i>Observer – NORMAC environment/conservation member</i>
<i>John Glaister</i>	<i>Observer – NORMAC Chair</i>
Additional participants for agenda item 3 – Broodstock collection	
<i>Matt West</i>	<i>Observer – APFA</i>
<i>Kim Hooper</i>	<i>Observer – APFA</i>
<i>Alistair Dick</i>	<i>Observer – APFA</i>
<i>David Wood</i>	<i>Observer – Tassal</i>

1 Preliminaries

1.1 Welcome and apologies

The Northern Prawn Fishery Resource Assessment Group (NPRAG) Chair, Ian Knuckey, opened the meeting at 8:00 am (EST) at the Riverview Hotel in Brisbane on 21 February 2019 with an Acknowledgement of Country. The Chair noted apologies from Economic Member Tom Kompas, who was unable to attend.

1.2 Adoption of Agenda

The Chair requested that the NPRAG to consider the draft agenda (Attachment 1), identify any required amendments, and adopt the draft agenda for the meeting. Two additional items of business were put forward for discussion being the Commonwealth's Marine Parks 'Round One' Grant opportunity and the tiger prawn fishery. These were added to the Other Business agenda item.

1.3 Declaration of interests

The Chair requested that NPRAG members consider the standing table of declared interests (Attachment 2) and individually declare whether the stated interests are accurate, and if not, provide an update on those.

It was noted that Ian Boot no longer holds a fishing permit to collect broodstock; Ian Knuckey works with Indigenous communities in capacity building activities, is the Chair of South Australia Gulf of St Vincent prawn fishery's research committee and a scientific member on the fishery's

management advisory committee, and; Rik Buckworth currently has a consultancy contract with the Anindilyakwa Land Council for a project evaluating the opportunities for development of aquaculture in the Groote Eylandt Archipelago. It was also noted that NPFI has a pecuniary interest in broodstock as it manages the vessel charter for broodstock collection vessels and the provision of broodstock to prawn farmers. The Chair requested each individual/group to leave the room while their potential conflict as it related to the meeting's agenda items was discussed. All RAG members and observers were invited back to participate in discussion noting those with an interest in broodstock, including the observers in attendance from the aquaculture industry, would be asked to leave the meeting in advance of any recommendations being made on Agenda Item 3.

No other apparent conflicts of interest were identified that would prevent individuals participating in discussions but if a particular conflict arose for any agenda item, the relevant party would be asked to leave the meeting at the appropriate time.

1.4 Minutes from previous meetings

It was noted that the minutes from the 1 November 2018 meeting were accepted out-of-session via email as a true and accurate record of the meeting.

The RAG noted that a correction to the last line and action under Item 5.3 (Red Endeavours) was required as follows: 'The Client Assessment Body (CSB), MRAG Americas, correctly advised that it is unable to provide advice on research needs as this would represent a conflict of its role as an independent assessor. The CAB is only able to identify gaps against the scoring requirements'.

2 Action items

The Chair advised that the action item list (Attachment 3) was for noting and the RAG would go through each item in more detail at its May 2019 meeting.

3 Broodstock collection

The chair introduced the agenda item on broodstock collection advising that three points for the RAG to consider were: the sustainability of *P. monodon* from a proposed increase to 20 000 live individuals (not including those not retained alive); the effect on other commercial NPF species; and, the impact on bycatch (including TEPs, particularly sawfish). The RAG noted that representatives from the aquaculture industry had been invited to discuss the agenda item and would be joining the meeting at 9.30 am. It was noted the attendance of the aquaculture industry provided an opportunity for constructive dialogue and also for the RAG to learn more about broodstock collection needs.

3.1 *P. Monodon* sustainability

AFMA management provided an update to the RAG on broodstock collection trips undertaken during 2018, advising that a total of 6524 live broodstock individuals were reported but that some broodstock catch data had not yet been received. The reported number of sawfish interactions increased to 291 in 2018, up from 15 in 2017.

The RAG was advised that *P. monodon* aggregates in relatively small areas in the NPF and the catch data can't reliably indicate the amount of broodstock available. There has only been a small amount of *P. monodon* reported in the GoC recruitment surveys but previous research on *P. monodon* distribution indicates there may be *P. monodon* 'hotspots' in the NPF.

The RAG noted there are challenges finding and catching *P. monodon* at the time that the aquaculture industry requires broodstock. Historically, when the banana prawn season has been good at Weipa

there has also been higher numbers of *P. monodon* caught as part of commercial fishing operations. However the historical research undertaken indicates that *P. monodon* are generally only available in Weipa in March-April. The RAG noted the aquaculture industry hasn't wanted broodstock this early because hatcheries don't require the stock until later in the year and there are difficulties and costs in holding broodstock for lengthy periods of time. The RAG noted that collection of broodstock in March/April would also impact on the Weipa banana prawn fishery.

The RAG highlighted that it was difficult to determine what a sustainable annual take of *P. monodon* might be without further investigation. The RAG suggested that, unlike brown/grooved tiger prawns and endeavour prawns which have been fished effectively for a long period of time, there may be challenges in collecting the information and conducting a quantitative stock assessment of *P. monodon*. As a byproduct species in the NPF with only minor levels of catch, it has not been the focus of attention for data collection and stock assessment. As a result, there is a general lack of knowledge about its full distribution. This could be addressed by a fishery-wide survey, but this is likely to be very expensive. Another option discussed could be to do a (SAFE) risk assessment on *P. monodon*. Regardless of the method, the RAG agreed that further research needs to be undertaken to reliably understand the implications from an increased level of broodstock collection on both the *P. monodon* stock and bycatch/TEP species.

3.2 Impact on bycatch

The RAG expressed concern about the increase in sawfish interactions during 2018 and that the interaction rate was much higher during trips targeting broodstock. Although 82 percent of sawfish caught during broodstock trips during 2018 were reported as released alive, the RAG noted there is little information on post-release survival and this needs to be investigated further.

The RAG noted there are data gaps for sawfish with most of the interactions from broodstock fishing operations not reported to species level. The RAG stressed the need for reliable data on sawfish interactions and stated that additional measures to improve species identification were essential. It was agreed that education of skippers and the use of identification booklets together with providing skippers with cameras to take photos of the sawfish for identification purposes was a good first step. The RAG also recommended increasing observer coverage on broodstock trips and suggested that at least the first trip in each fishing area should be covered by an observer.

The RAG discussed mitigation options for sawfish noting that two projects were already supported in this respect. It was also proposed to use cameras in the nets near the turtle excluder device on some NPF boats to assess how sawfish were getting entangled and to identify options to reduce interactions and/or improve release.

AFMA and NPFI presented information on the location and timing of sawfish interactions in 2018. The RAG noted that the majority of the sawfish interactions occurred in a relatively confined area around West Bathurst Island and Cape Van Diemen. However, the interactions were spread out over time with 288 interactions occurring over a six-month period from July through to December. The RAG discussed the potential for move-on provisions whereby a boat would need to move to another area if sawfish were caught. However, the RAG noted this needs to be assessed further and considered alongside potential area closures to reduce sawfish interactions.

3.3 Discussion with the aquaculture sector

The Chair welcomed David Wood from Tassal, and Matt West, Kim Hooper and Alistair Dick from the Australian Prawn Farmers Association (APFA) at 9.30 am. The Chair provided a brief overview of the RAG's role. In particular, the RAG's role is to provide scientific advice to the Northern Prawn Fishery Management Advisory Committee (NORMAC), the AFMA Commission and AFMA Management.

Matt West informed the RAG on the aquaculture industry's operations and how the various prawn farming operations work together. APFA noted the industry is still in its infancy but is rapidly expanding and still has a strong reliance on wild-caught broodstock. There is a lot of research being undertaken to domesticate *P. monodon* but due to the outbreak of white spot disease in 2016, domestication progress has been set back considerably. The APFA has worked collaboratively with the NPF Industry Pty Ltd (NPF I) to fulfil broodstock demand for the past two years, but due to an expanding industry and new operators entering the industry, there is increased demand for broodstock. It was noted that there is capacity for three fishing permits to be issued to collect broodstock but recently only one permit has been issued. With the increasing demand for broodstock, one vessel under one permit may not be adequate to meet the growing demand.

The RAG noted some of the technical aspects of prawn farming, including how the volume of broodstock required is determined, the difference in viral loads of broodstock between different regions and how individual farms/hatcheries manage bio-security issues relating to broodstock.

One of the RAG's main roles is to ensure information is collected and research is undertaken to guide sustainable management of the fishery and it was noted that the NPF invests substantially in research every year towards this goal. The RAG asked whether it was possible to get a projection of the total number of broodstock the aquaculture industry is likely to require over the coming years. A forward projection of the broodstock requirements would help the RAG perform its role sufficiently. The APFA advised that it would be able to provide a forward projection, noting that the projection is likely to change as existing and new operators' requirements for broodstock increase.

David Power provided a presentation on the management framework for the NPF and the government policies to which AFMA has to give consideration when making management decisions. The RAG noted the framework includes abiding by the Commonwealth Harvest Strategy and Bycatch policies, meeting requirements under the *Environment Protection and Biodiversity Conservation Act 1999* particularly regarding Threatened, Endangered and Protected species (TEPS), and undertaking ecological risk assessments. It was explained that the Commonwealth Harvest Strategy Guidelines require AFMA to implement management measures that aim to keep stocks of *P. Monodon* above a limit reference point (LRP) equivalent to 20% of the unfished level at 90% of the time. However, the stock status of *P. monodon* is unknown, so it is difficult to determine if the broodstock collection limits in place help manage the risk of reducing the stock falls below the LRP.

The RAG advised that in considering the requested number of broodstock required for 2019, the level of risk associated with an increased harvest of broodstock needs to be assessed. The RAG also needs to consider if proposed increases in broodstock harvest are sustainable and this question can't be answered at the moment due to a lack of information available for *P. monodon*. The RAG agreed that addressing these information gaps is a top priority and noted that an Ecological Risk Assessment is already planned for the first half of 2019. The RAG will also consider other assessment options for determining the *P. monodon* stock status. The aquaculture industry representatives expressed its interest in supporting research that addresses these gaps.

The total volume of *P. monodon* caught through targeted broodstock fishing and regular NPF fishing activities is a small component compared to other prawn species. Catch data from broodstock collection trips over the last five years was presented to the meeting. The RAG noted that there is a considerable amount of other commercial NPF species discarded when collecting broodstock.

The RAG also expressed its concern that the rate of sawfish interactions when undertaking targeted broodstock fishing was especially high in 2018 compared to the number of interactions which occurred as part of commercial fishing activities. The mortality rate of the sawfish captured was questioned, noting that broodstock trawl shot times are much shorter than commercial fishing shot times. It was

reasonable to assume that there could be higher numbers of sawfish released alive on broodstock trips but it was noted there is lack of information on the post-capture survival of sawfish and this is one area where further research is required. Regardless of levels of survival, the number of sawfish interactions during 2018 was very concerning for the RAG, and is something that needs to be addressed as it is recognised as one of the highest risk species in the fishery.

NPRAG was advised that APFA also invests heavily in research and there is the potential for co-funding arrangements in areas of shared concern, for example sawfish and assessment of *P. monodon*.

The Chair advised that the next steps are for the RAG to provide advice to AFMA and NORMAC on the relative risks and implications of proposed increases in broodstock harvest level. This will include recommendations for further research and assessment. It was noted that the AFMA Commission will be informed of the NPRAG's recommendations to enable the Commission to consider management options for *P. monodon* at its March meeting. It was noted the aquaculture industry is looking to begin collecting broodstock as soon as possible and it was requested that a decision regarding how many individuals are permitted to be caught during 2019 be expedient. A revised number of 12 500 individuals was put forward by APFA as the total number of animals required in 2019. It was noted that the RAG will discuss potential measures to mitigate interactions with sawfish before providing advice to AFMA and NORMAC.

The Chair and NPRAG members thanked the representatives from the prawn aquaculture sector for their participation, noting that dialogue is extremely valuable and needs to be maintained as AFMA continues to manage fishing for broodstock in accordance with AFMA's sustainability objectives. The aquaculture industry representatives left the meeting at 11.00 am.

The RAG subsequently highlighted the lack of scientific information on the status of *P. monodon* and recommended that a Sustainability Assessment for Fishing Effects (SAFE) be conducted as a matter of urgency to understand the risks associated with fishing effort for *P. monodon*. The RAG noted that there is insufficient information to assess whether the proposed increases in catch of *P. monodon* are sustainable and acknowledged the heightened risk to sawfish. It was recommended that AFMA/NPRAG monitor sawfish interactions throughout the year and consider management measures, such as move-on provisions or area closures, to mitigate the risk to sawfish. The RAG recommended that a taskforce comprised of the AFMA management team and NPF be established to develop management measures that reduce interactions with sawfish. Based on current information, the RAG considered that any increases in broodstock collection (over the 9000 animal cap) should only be considered following further assessment of the *P. monodon* stock and appropriate management measures implemented to reduce the risk of interactions with sawfish.

The RAG discussed the need for more timely reporting of all catch data and TEP species interactions by broodstock fishing operations, including whether there is potential to report data from broodstock fishing operations using electronic logbooks (e-log). It was noted that the NPF Catchlog system currently only allows catches to be reported in kilograms, whereas broodstock catches are reported in numbers of animals. It was also noted that the current broodstock boat operating under a permit does not have an e-log system and catches are reported using Excel spreadsheets. The RAG reiterated the need for real time reporting and noted that AFMA would investigate the potential for a field to be added into e-logs to report broodstock catch as individuals. It would also investigate whether it is possible for e-logs to record and distinguish between a broodstock trip and a regular fishing trip for NPF licensed boats collecting broodstock.

It was noted that the catch data relating to both *P. monodon* and NPF target species discards for broodstock trips are not currently included in the NPF stock assessments. Although this catch data

represents a minor component of the whole fishery, the RAG agreed the data needs to be included in future stock assessments.

NPFI and industry members were asked to step out of the room while the RAG finalised its recommendations.

As a precautionary approach, the RAG supported maintaining the existing broodstock collection limit of 9 000 individuals/year, noting the need for further assessment to consider impacts of increased catches across the fishery. The RAG recommended that a review process be instigated when 9 000 individuals is reached in any one year to assess the sustainability impacts of continued fishing beyond this level, particularly with respect to sawfish bycatch levels. This should allow sufficient time for a SAFE analysis to be completed and risk assessment results available for the RAG's consideration. The RAG also agreed to monitor progress in minimising sawfish bycatch and improving real time reporting and species identification.

Actions:

- AFMA to organise for a field to be added into e-logs so broodstock individuals can be recorded directly to the AFMA database.
- AFMA to make sure there is a way in the e-logs to record and distinguish between a broodstock trip and a regular NPF fishing trip
- AFMA and NPFI to develop a sawfish mitigation plan for consideration by RAG and MAC before the end of March. In developing the plan, investigate research options to assess post release survival of sawfish and consider closures in high interaction areas, move-on provisions and ensure near-real time reporting of sawfish interactions from the vessels
- AFMA to increase observer coverage on broodstock fishing trips and ensure that coverage is representative
- APFA to provide a 5-year projection on the total number of *P. monodon* broodstock animals to be sourced from the NPF annually
- AFMA/CSIRO to ensure all catch data (including discards) from broodstock fishing operations are included in the NPF stock assessment
- Conduct a SAFE assessment for the NPF including fishing for broodstock collection (within 6 months)
- Investigate options for further assessment of *P. monodon* stocks to provide information on the sustainable harvest of *P. monodon* from the NPF over the longer term.

4 JBG Redleg Banana prawn sub-fishery

The RAG noted that CSIRO had developed a pre-proposal for conducting a management strategy evaluation (MSE) of the four Redleg banana prawn harvest strategy options discussed at the November 2018 RAG meeting. The RAG noted that NPFI supports the MSE. The RAG suggested that an industry and management representative be included in the project as co-investigators. The NPRAG supported the proposal as proposed noting that a small increase in funding may be required.

5 NPF Scampi trigger

AFMA presented an overview of scampi catch in 2019 noting that fishing has taken place in early 2019 and nearly 30 tonnes has been caught. Under the NPF harvest strategy, a review is triggered when more than 30 tonnes is caught in a calendar year and a 30 tonne limit is also placed on the fishery the following calendar year. For 2019, this means that when 30 tonnes is reached, there will be no more scampi permitted to be caught in the fishery. There was discussion on the rationale for this limit and it was noted that the limit could be reviewed during the harvest strategy review process planned for 2019-20. However, for 2019, the RAG reiterated that the 30 t limit should stand.

AFMA noted that there has not been size data collected for these scampi trips in early 2019; however, there was size data for trips in late 2018. Looking towards next summer, it is critical that size data is collected over 2020 summer scampi fishing and observers/CMOs will be required to achieve this. It was noted that scampi fishing operators will be providing size grade data to NPFI for use in the review.

The RAG recommended that the harvest strategy review include careful consideration of limits and assessment for byproduct species. AFMA will prepare a discussion paper on the harvest strategy review at the May 2019 RAG meeting. This will be circulated to RAG members prior to the meeting to collect feedback and input on what is working well and areas that need refinement.

Action:

- NPFI to review the size structure of the scampi catch using grading data from scampi operators.

6 Other business / next meeting

6.1 Marine parks round one grant opportunity

The RAG noted that as part of the structural assistance the government has made available for the implementation of the Commonwealth marine reserves network, there is a component for marine parks grants programs. This component is available for funding projects that improve the long-term sustainability of fishing in ways that support the objectives of the marine parks' marine management plans. It includes the protection and conservation of biodiversity and other natural, cultural and heritage values of marine parks; ecologically sustainable use and enjoyment of the natural resources within marine parks where this is consistent with the objectives; facilitating the engagement of marine parks users in activities to support the management of parks, and; assisting in engaging users in programs that contribute to the knowledge of marine parks. NPFI has been invited to participate in the grants program and applications close on 12 March 2019.

The RAG was asked to provide some suggestions of potential projects that could meet the criteria of the marine parks grants programs. A few suggestions were provided and the RAG agreed that David Brewer and Rik Buckworth would collaborate with NPFI out-of-session to help develop a project proposal.

6.2 Tiger prawn fishery evaluation

The RAG discussed a proposal to restrict tiger prawn fishing in the banana prawn season. Some concerns were raised that fishing pressure is too high in some parts of the fishery, for example around the south-eastern Gulf of Carpentaria. In 2018, the tiger prawn catch at Bountiful Islands was poor leading to some operators suggesting the long-term sustainability and economic viability of this area is a concern. Associated with this is a concern that because the assessment is based

on the entire stock, is too generalised to pick up on some of the spatial variation within the fishery. In addition, the area around Bountiful and Mornington Islands is disproportionately targeted in the banana prawn season as all the other tiger prawn areas are closed. A fall-out from closing any particular area is that it increases pressure on other areas. The RAG acknowledged the concern and suggested that AFMA work with Phil Robson to review the historical catch and effort data, by season, around the Bountiful and Mornington Islands and present it for the RAG's consideration at its May 2019 meeting.

Actions:

- NPRAG to collaborate with NPFI out-of-session to help develop a project proposal for the marine parks grant opportunity
- AFMA/Phil Robson to analyse the historical catch and effort data, by season, around Bountiful and Mornington Islands and present the analysis to the RAG at its May 2019 meeting for its consideration.

The Chair closed the meeting at 12:30 pm (EST).

Signed (Chairperson):



Date: 22/03/19

Draft Annotated Agenda

Northern Prawn Fishery Resource Assessment Group (NPRAG) meeting

21 February 2019 8.00 am (Eastern Standard Time)

Item	Responsibility	Paper
1. Introduction / Meeting Management <ul style="list-style-type: none"> • Welcome • Adoption of agenda • Declaration of interests • Minutes from previous meetings 	Chair	Yes
2. Action Items <i>Outcomes: RAG to note progress on action items from previous meetings and provide feedback and comments where appropriate.</i>	AFMA	Yes
3. Broodstock collection <ul style="list-style-type: none"> • 2012-2018 data • Harvest level recommendation <i>Outcomes: The RAG reviews the broodstock collection data and makes a recommendation of future harvest levels.</i>	AFMA	Yes
4. JBG Redleg Banana Prawn sub-fishery <ul style="list-style-type: none"> • Research proposal – MSE of JBG Redleg Banana Prawn Harvest Strategy <i>Outcomes: The RAG to review the MSE proposal and discuss resource options to undertake the project.</i>	AFMA	Yes
5. NPF Scampi trigger <ul style="list-style-type: none"> • Review of the NPF scampi catch and harvest strategy trigger <i>Outcomes: That the RAG notes that the NPF HS scampi trigger was exceeded in 2018; the RAG to review scampi catch data and recommend a future harvest level.</i>	AFMA	Yes
6. Other business <ul style="list-style-type: none"> • Implications from the strategic workshop for the RAG • Marine parks round one grant opportunity • Tiger prawn fishery evaluation 	RAG	

NPRAG Declared Conflicts of Interest

Participant	Membership	Interest Declared
Ian Knuckey	Chair	<p>Director - Fishwell Consulting Pty Ltd</p> <p>Director - Olrac Australia – a company associated with electronic logbooks.</p> <p>Scientific member - NORMAC</p> <p>Chair - Tropical Rock Lobster RAG</p> <p>Chair - Victorian Rock Lobster RAG</p> <p>Scientific member - SESSF shark RAG</p> <p>Scientific member – GABRAG</p> <p>Works with Indigenous communities in capacity building activities</p> <p>Chair - South Australia's Gulf of St Vincent prawn fishery's research committee</p> <p>Scientific member - South Australia's Gulf of St Vincent prawn fishery's management advisory committee</p> <p>Various research interests in other Commonwealth and State fisheries.</p>
Rik Buckworth	Scientific Member	<p>Scientific Member - South East RAG</p> <p>Scientific Member - Torres Strait Finfish RAG</p> <p>Chair - NT Research Advisory Committee (FRDC)</p> <p>Director - Aquatic Remote Biopsy Pty Ltd</p> <p>Director - Sea Sense Australia Pty Ltd</p> <p>Current consultancy contract with NPFI to review Red Endeavour prawns</p> <p>Current consultancy contract with the Anindilyakwa Land Council in a project evaluating the opportunities for development of aquaculture in the Groote Eylandt Archipelago.</p> <p>Researcher involved particularly in stock assessment research in NPF. Has in the past and may in future seek and receive funding for research in the fishery.</p>

Participant	Membership	Interest Declared
<i>David Brewer</i>	<i>Scientific Member</i>	<i>Director – Upwelling P/L (David Brewer Consulting) Honorary Fellow – CSIRO Scientific member – NPFRAG Scientific member – Torres Strait Fin Fish Working Group Chair - Torres Strait Fin Fish RAG Editorial committee - Moreton Bay and Catchments 2019 Volunteer - Moreton Bay Environmental Education Centre Current consultancies with Quandamooka Yoolooburrabee Aboriginal Corporation, Redlands City Council, Torres Strait Regional Authority</i>
<i>Ian Boot</i>	<i>Industry Member</i>	<i>Managing Director of Austfish, a company which operates NPF vessels. Has a commercial interest in the fishery.</i>
<i>Phil Robson</i>	<i>Industry Member</i>	<i>Employee of A Raptis and Sons, responsible for managing NPF vessels & an NT demersal fish trawler. Has provided charter for scientific surveys in NPF (none of which are in JBG) in the past and may in future.</i>
<i>David Power</i>	<i>AFMA Member</i>	<i>AFMA employee, no pecuniary interest in the fishery.</i>
<i>Stephen Eves</i>	<i>Executive Officer (AFMA)</i>	<i>AFMA employee, no pecuniary interest in the fishery.</i>
<i>Steve Bolton</i>	<i>Observer - AFMA</i>	<i>AFMA employee, no pecuniary interest in the fishery.</i>
<i>Annie Jarrett</i>	<i>Observer - NPFI</i>	<i>CEO- NPFI Member of the MSC Stakeholder Council Chair - Australian Council of Prawn Fisheries (ACPF). Some research items are of relevance to NPFI.</i>
<i>Adrienne Laird</i>	<i>Observer - NPFI</i>	<i>Employed as a contractor by NPFI. Some research items are of relevance to NPFI.</i>
<i>John Glaister</i>	<i>Observer - NORMAC Chair</i>	<i>NORMAC Chair, ex-AFMA Commissioner, no pecuniary interest in the fishery.</i>
<i>Claire van der Geest</i>	<i>Observer – NORMAC conservation/environment member</i>	<i>Consultant to the International Seafood Sustainability Foundation, Consultant to TerraMar Consulting's SeaNet Indonesia program. No pecuniary interest</i>

Participant	Membership	Interest Declared
<i>Robert Curtotti</i>	<i>Observer - ABARES</i>	<i>Economics research provider. No current pecuniary interest in fishery. Potential to seek and receive funding for research in the fishery in future.</i>

NPRAG Action items

Item	Person responsible	Description of action item	Progress
18 May 2016 Meeting			
1	Rik Buckworth/CSIRO	Upload research reports relevant to the NPF to the GovTEAMS site.	Ongoing – Rik Buckworth/CSIRO to identify the top 50 papers that are fundamental to the RAG's work and upload to GovTEAMS
2	AFMA	Provide a written annual summary of observer monitoring that provides methods, results and spatial distribution (use SESSF report as a template).	Complete – presented to RAG at November 2018 meeting
3	NPRAG	Reassess the research priorities at the next face-to-face meeting to establish a schedule of improvements to be made to the stock assessment.	Ongoing – to be discussed at May RAG each year
4	CSIRO	Update on the mangrove die-off.	Ongoing – to be discussed at each meeting
17-18 November 2016 Meeting			
5	CSIRO	Review/update the assessment inputs to consider the influence of price elasticity.	Ongoing – Tom Kompas to follow up and investigate whether this can be done and coordinate with the AFMA working group to ensure resources looking into price elasticity are not being doubled up. Tom to discuss at the July 2018 working group meeting
6	NPRAG Chair	Send a thank you letter to the crews involved in the operational testing of the BRD.	Ongoing – letters with Chair for signing, to be kept on file until mid-2018
11 May 2017 Meeting			

7	CSIRO	Present economic spreadsheet with the inputs into the MEY trigger at annual November RAG meeting.	Ongoing – present at November meeting each year
8	CSIRO/Tom Kompas	Present data on how the industry price estimates compare with the survey results at the November NPRAG meeting each year.	Ongoing – present at March teleconference meeting each year
23-24 May 2018 Meeting			
9	AFMA	AFMA to ensure the Scientific Observer photos of TEPs and at-risk species are being sent to Gary Fry for analysis.	Ongoing – in discussions with Scientific Observers and Gary Fry about how to share large amounts of data
10	AFMA/CSIRO	AFMA to work with CSIRO and Scientific Observers to update the scientific data collection protocols.	Ongoing – to be discussed at May RAG meeting each year
11	AFMA/NPFI	AFMA and NPFI to investigate the objective for collecting species abundance counts and whether this data should continue to be collected.	Ongoing
12	AFMA	AFMA to review the bug collection data to determine if it still needs to be collected.	Ongoing
13	David Brewer, David Power, Steve Eves, Adrienne Laird	David Brewer, David Power, Steve Eves, Adrienne Laird and a representative from the CSIRO ERA team to form a working group to engage in the ERA process and report key results back to the RAG.	Ongoing
1 November 2018 Meeting			
14	CSIRO	CSIRO to provide a project scope for MSE testing the four Redleg Banana prawn harvest strategy options and circulate to NPFI and the RAG out of session by the first week in December 2018	Complete
15	AFMA	AFMA to confirm the procurement process for	Complete

		undertaking the Redleg Banana prawn MSE project	
16	AFMA	AFMA to organise a teleconference to discuss the Redleg Banana prawn MSE project scope and procurement requirements at the beginning of December 2018	Complete – agenda item 4
17	NPFI	NPFI to discuss with the MSC Conformity Assessment Body (CAB) the issues and proposed options for the fishery in order to receive some guidance on where the fishery should focus its research.	
18	NPRAG	RAG to provide advice to the Commission on the outcomes from the NAWRA reports and the impact on the NPF target species	Complete
19	Ian Knuckey	Ian Knuckey to draft a Chairs report for NORMAC and the Commission with assistance from Rob Kenyon and Eva Plaganyi to capture the detail of the Northern waters developments	
20	Rob Kenyon	Rob Kenyon to consult with NAWRA researchers to seek to provide the RAG with a summary of key results of the NAWRA side project report that details the impact of loss of late dry season flows (and other low-level flows) on banana prawn catch. Rob Kenyon to provide a copy of the report to the NPRAG when it is released	
21	AFMA	AFMA to update the observer protocol for counting birds to include the monitoring of potential warp strikes	Ongoing
22	AFMA	AFMA to look into New Zealand's protocols for counting bird abundance	Ongoing

23	AFMA	AFMA to update the observer protocol for collecting bugs to include the collection of a 30 individual subsample of bugs of all sizes	Ongoing
24	AFMA	AFMA to check the observer protocols to ensure the collection of the 10 kg subsample is in accordance with the method outlines by <i>Heales et al.</i>	Ongoing
25	AFMA	AFMA to include the method for collecting the eyeball estimate of the total catch in the observer protocols	Ongoing
26	AFMA	On page 99 of the meeting documents, dot point 4, remove the word 'group' – Identify species 'group' should be 'identify species'	Ongoing
27	AFMA	AFMA to ensure the observer data is collected in the correct unit of measurement	Ongoing
28	AFMA	AFMA to re-check the data within the 2017 annual observer report	Ongoing
29	AFMA	AFMA to consider dividing up annual observer report by season and including the target number of days per season and target lengths	Ongoing
30	David Brewer/Gary Fry	David Brewer and Gary Fry to provide comments/feedback to AFMA on the current observer manual and annual observer report	Ongoing
31	Tom Kompas	Tom Kompas to provide the economic data used for the 2018 in-season banana prawn catch triggers	Ongoing – to be discussed at March teleconference
32	NPRAG	RAG to compare the industry provided price data with the actual 2018 price data	Ongoing – to be discussed at March teleconference

		(surveyed in mid to late 2018 and collated at the beginning of 2019)	
33	CSIRO/Trevor Hutton	CSIRO/Trevor Hutton to revise the species split project scope to include a clear sampling regime and liaise with NPFI regarding costings before the February 2019 industry meeting	Complete
34	AFMA	The RAG to inform Biosecurity Qld that it is supportive of staying involved in the biosecurity response, it is interested in plans to mitigate the impact, it has concerns of the impact on the NPF and is interested in supporting/assisting as required.	Ongoing
35	NPRAG	The RAG to critically analyse the NPF survey indices data at the beginning of 2019 when made available	Ongoing
36	Gary Fry	Gary Fry to inform Dr Pillans the sawfish data within his report could be analysed by season (depending on data availability)	Complete
37	Gary Fry/Trevor Hutton	Gary Fry and Trevor Hutton to correspond with Dr Pillans with regard to the presentation of the data in the sawfish report	Complete
38	AFMA	AFMA to contact CSIRO/DoEE to discuss the content of the sawfish report	Complete
39	AFMA	AFMA to ask that the re-vised draft sawfish report (i.e. any new revisions) be made available to the RAG before it is finalised	Complete