



Australian Government

Australian Fisheries Management Authority

 **Northern Prawn Fishery
Resource Assessment Group
(NPRAG) Meeting**

Teleconference Minutes

Date: 24 May 2017

2.00 pm – 4.00 pm

Attendance

Name	Membership type
Ian Knuckey	Chair
Phil Robson	Industry Member
Malcolm Haddon	Scientific Member - CSIRO
Rik Buckworth	Scientific Member
David Brewer	Scientific Member
Steve Bolton	AFMA Member
Stephen Eves	Executive Officer - AFMA
Gabrielle Miller	Observer - AFMA
Annie Jarrett	Invited Participant - NPFI
Adrienne Laird	Observer - NPFI
Trevor Hutton	Observer - CSIRO
Robert Curtotti	Observer - ABARES

Minutes

Agenda Item 1 - Preliminaries

1.1 Welcome and apologies

The Northern Prawn Fishery Resource Assessment Group (NPRAG) Chair, Ian Knuckey, opened the teleconference at 2.05 pm (AEST) on 24 May 2017. The Chair noted apologies from Industry member Ian Boot and Economic member Tom Kompas.

1.2 Adoption of Agenda

The agenda was adopted as presented (**Attachment 1**).

1.3 Declaration of interests

The RAG followed the conflict of interest declarations as outlined in the revised Fisheries Administration Paper 12 (FAP12).

The Chair called for declarations of interest to be made by the group in relation to any pecuniary interests relevant to discussions outlined on the agenda (see **Attachment 2**). The RAG noted that NPFI have come to an agreement with AFMA to take over management of broodstock collection under the co-management contract. The Chair asked the industry members and observers to leave the conversation while the RAG considered any potential conflicts. The Chair advised that as NPFI won't financially benefit from the proposed arrangements and given their increased responsibility of broodstock management, it would be beneficial to include NPFI in the discussions. The RAG agreed that it would be useful for NPFI to be involved in the broodstock discussion considering their future involvement in its management. The RAG noted that as Ian Boot (who has collected broodstock under contract in the past) was not present, there were no further potential conflicts identified.



Agenda Item 2 – Draft Commonwealth Fisheries Policies

2.1 Commonwealth Fisheries Harvest Strategy Policy

The RAG noted the main changes to the draft Commonwealth Harvest Strategy Policy and provided comments on the proposed policy with specific focus on implications for the Northern Prawn Fishery (NPF). The RAG made the following key points:

- there is no recognition that the current Harvest Strategy Policy (HSP) has been applied for ten years and during that period there have been vast improvements: overfishing has stopped or greatly reduced; catches are as low as they've ever been; and, in the NPF the fleet size is smaller than it's ever been. Despite the improvements, the draft HSP continues to emphasise reducing risk. It would be valuable to include some more positive recognition of the progress industry has made, such as including 'continue to' stop overfishing and so on;
- there has been an improvement in the way multi-species fisheries are covered under the draft HSP, specifically the section that states "recognising that most commonwealth fisheries are multi-species fisheries it may be necessary to manage individual stocks to different target reference points to achieve fishery level maximum economic yield (MEY)." It was also suggested that in the NPF, stocks aren't necessarily managed to different target reference points, that's just where they'll be (or end up) as a consequence of managing the fishery as a whole to achieve MEY;
- in section 3.1.3 – Byproduct (also Table 1), the reference to "ranging from rarely encountered and usually retained, to frequently encountered and rarely retained" implies byproduct that is predominantly discarded. An improvement would be to change the wording to "ranging from rarely encountered and usually retained, to frequently encountered and sometimes retained" as this would be consistent with the first sentence in the section "byproduct species make a minor contribution to the value of the catch". It is a little contradictory to be rarely retained but still play a minor contribution to the value of the catch. However, the definition of bycatch in Table 1 states "not usually retained". There is limited difference between 'sometimes' and 'not usually'. The draft HSP could be improved by ensuring consistency between the policies (HSP and the bycatch policy) and within them regarding the descriptions of each species category;
- in section 3.4 – Balancing risk, cost and catch, the intent seems to imply that if it's a low value fishery and the perceived risk is low, then it is appropriate to have minimal monitoring and assessment. This is a significant improvement compared to the current HSP;
- MEY is a continual moving target and the influence of external factors on an MEY target doesn't seem to be captured well in the draft HSP. There is an assumption that MEY is based mainly on stock size but there are other critical economic inputs that can change suddenly from markets closing and opening, changing exchange rates, and changing fuel prices. These economic inputs can potentially impact far quicker on an MEY target than changes in stock size. An improvement would be to mention and discuss this in the draft HSP;
- in Table 1, the definition of bycatch should be changed from "no contribution to the economic value of the fishery" to "trivial contribution to the economic value of the fishery". Otherwise, as an example, if you catch one sardine and sell it then it will be categorised as byproduct and that's nonsensical;
- in Table 1, the limit reference point states "risk to the stock is regarded as unacceptable at least 90 per cent of the time". This is a significant improvement to the current HSP as it implies nine years out of ten which is a much more practical and cost effective measure;
- in section 4.2 – Harvest Strategies, it states that "harvest strategies consistent with this policy must be in place in all significant Commonwealth fisheries within three years". The RAG was not clear if the term significant was being applied to the entire fishery, or stocks within a fishery. This needs to be clarified in relation to the species categories as this has implications for which stocks or management unit levels need an individual harvest strategy – i.e. one fishery (NPF) may have multiple harvest strategies;



- in Table 2, the proxy states “0.48 of unfished biomass or 1.2 of biomass at maximum sustainable yield (MSY)”. This is problematic as there is no biomass estimate for some stocks. A suggestion is to include a ‘secondary proxy’ for stocks where there is no biomass estimate. The example of the NPF was provided, where the banana prawn catch rate (which ensures some level of escapement) is used as a limit reference point and also to maximise MEY. However, this is a proxy for the proxy of $0.5 B_{MSY}$. The proxies are referred to throughout the draft HSP and if the ‘secondary proxies’ are not considered, it creates significant difficulties when trying to interpret the HSP (and write the guidelines). An improvement would be to include a set of proxies that don’t refer to biomass;
- fishing mortality (F) is not mentioned anywhere in the draft HSP. Biomass reference points and proxies are mentioned but there is no mention of fishing mortality rate reference points and proxies. An improvement would be to include fishing mortality reference points in the HSP as you can easily have F instead of B targets and limits. This is particularly important considering that ABARES reports on fishing mortality rates as well as biomass levels;
- in section 3.7 – Spatial and temporal management, there is no mention of effort as part of temporal management. The lack of reference to effort is concerning as the NPF is mainly managed on effort;
- there is an inconsistency between the definition of ‘overfished’ and the application of the draft HSP. It is possible for the stock to be below the limit reference point (LRP), according to the definition of overfished, but still be within the bounds of the harvest strategy because a stock is only considered overfished if it’s below the LRP more than 90 per cent of the time. By definition, the draft HSP states that a stock is overfished as soon as it drops below the LRP and that’s not the case. The definition of overfished in the glossary isn’t consistent with a harvest strategy that allows you to go below the LRP, and you can be below the biomass limit reference point under a harvest strategy and not be overfished;
- in section 3.13 – Relationship between the HSP and the EPBC Act, there’s a paragraph that refers to trigger points. This is the first mention of trigger points in the draft HSP and they are not defined anywhere in the policy;
- the draft HSP refers to stocks and species but it is unclear how byproduct species are categorised when multiple species are included under the one common name, e.g. squid. How are species ‘baskets’ dealt with where it is too difficult to discern between species? If byproduct or secondary species’ are to be managed to a target of B_{MSY} , and some of these species may be a species ‘basket’, how does this fit in with the draft HSP. Furthermore, the extra work to include secondary and byproduct species in fisheries harvest strategies will come at a significant cost to industry and the requirement to have the harvest strategies completed within three years is also concerning.

2.2 – Commonwealth Fisheries Bycatch Policy

The RAG discussed the draft Commonwealth Fisheries Bycatch Strategy, with particular reference to the NPF, and made the following key points:

- the definition of bycatch is quite different to what’s globally accepted. Not even MSC define bycatch in this way. The term interaction is too broad and includes animals that don’t get brought onto a boat. It is hard to mitigate bycatch ‘interactions’ if you’re not even aware of them. The term cryptic mortality covers some of these interactions but assumes the animal’s death. You can also have cryptic non-mortality. According to the definition, all the work NPF industry has done to reduce bycatch, including the use of TEDs and BRDS, amounts to nothing as the animals have still ‘interacted’ with the fishing gear. Perhaps the definition should also cover what’s not bycatch, i.e. species that naturally escape or escape through the use of escapement technology;
- cryptic interactions (including mortality and non-mortality) are practically impossible to measure and should be treated through the Commonwealth ERA/ERM frameworks. An improvement to the policy could be to include cryptic interactions together with habitats and ecological communities in paragraph three of the introduction “Further policy and technical



work will be required to explicitly address ecosystem impacts...In the interim, these impacts will continue to be considered and reported through the Commonwealth's ERA and ERM frameworks". If cryptic interactions are included in the bycatch definition it has implications for the criteria in section three including monitoring and reporting (section 3.7) which is not practical and would be expensive to address. It's bad policy to require something that's enormously expensive and very difficult to do. Furthermore, it is inconsistent with paragraph four of the introduction that states "The Guidelines will support a **practicable** and consistent application of the policy across Commonwealth fisheries". There is no way that inclusion of cryptic mortality and non-mortality in the definition of bycatch can be considered practicable;

- in section 1.1 – What is bycatch, the definition of bycatch should include the word 'trivial', i.e. change from "not usually retained by commercial fishers and do not make a contribution to the economic value of the fishery" to "not usually retained by commercial fishers and make a trivial contribution to the economic value of the fishery";
- in section 3.1.2 – Protected, seabirds would fall under this category. The NPF has not had similar issues with seabirds experienced by some of the southern trawl fisheries. However, the only way seabird interactions were identified in the southern fisheries was by having an observer assigned to specifically watch interactions with the warp lines. It might be worth checking that the observers in the NPF spend some time watching the warp lines to confirm there are minimal negative interactions with seabirds;
- in section 4.2 – Bycatch strategies, if cryptic interactions are included in the point "data collection, reporting and monitoring processes...assessment, monitoring and management of bycatch" then it is practically impossible to meet this requirement. It is setting up fisheries for failure;
- in section 1 – Introduction, there is reference to recreational and Indigenous fishers having bycatch impacts yet there is no onus on these sectors to contribute to the management and/or cost. The responsibility lies entirely with the commercial sector. Furthermore, section 3.5 refers to cumulative impacts but the cumulative impacts will only be taken into account for commercial fishing and not from other sectors. The other sectors are not required to contribute to the management, data collection or associated cost.

2.3 – National Plan of Action for Minimising the Incidental Catch of Seabirds in Australian Capture Fisheries

The RAG discussed the draft NPOA-Seabirds, with particular reference to the NPF, and made the following key points:

- in the introduction, the point that states "trawl fishers must use warp deflectors..." is incorrect. These are not required in the NPF.
- It was not considered by members that there was a significant issue of interactions of seabirds with NPF trawlers. Further, the only interactions with seabirds in the NPF do not appear to be negative;
- from a risk perspective, the overlap of the actual NPF fishing area constitutes only a subset of the total NPF area, and this in-turn forms only a small percentage of the seabird distributions. Therefore, even if there is cryptic mortality, a large portion of the area is free from fishing;
- Nevertheless, Objective 1, "understand the extent of incidental catch of seabirds" of the draft policy needs to be (re)considered in the NPF in light of potential warp strikes. The issue of cryptic interactions with the warp line was raised and it was suggested that information needs to be collected to clearly show this is not an issue in the NPF. RAG members were informed that this is unlikely to be an issue for the NPF because the warps are a lot further away from the boat compared to the southern fisheries.

Agenda Item 3 – Broodstock Collection

The Chair advised that at the 11 May 2017 meeting the collection of broodstock in the NPF was put to the RAG members for consideration. The RAG recommended that the number of individuals permitted



to be caught could be increased to 9000 as a one-off for 2017 with the condition that catch, bycatch and TEPS data be provided for RAG consideration before the end of the year.

An information paper was provided in time for this teleconference and the RAG discussed the data in regards to the recent recommendation.

Annie Jarrett, NPFI invited participant, advised that there had been no undue influence exerted with the request put forward to the RAG to increase the number of collected broodstock to 9000 individuals. The request was to simply confirm NPFI's position agreed to at the March meeting. The proposal for NPFI to manage broodstock collection under co-management arrangements had not been discussed with AFMA at the time of the RAG meeting, nor had it been approved by the AFMA CEO, the NPFI board, or prawn farmers. The 9000 individuals would still be the required amount regardless of who manages the collection.

Consistent with its previous advice, the RAG suggested that 9000 individuals is a relatively small amount and is not a sustainability concern for the target species. However, there were some concerns raised regarding other aspects of the broodstock collection – mainly relating to bycatch and discarding.

As a TEP species that interacts with prawn trawlers, the bycatch of sawfish (Narrow Sawfish (*Anoxypristis cuspidata*), Dwarf Sawfish (*Pristis clavata*), Freshwater Sawfish (*Pristis microdon*), Green Sawfish (*Pristis zijsron*)) is important to consider. The sawfish catch rate appears to be approximately 15 per cent higher in broodstock collection compared to the rest of the NPF fishing operations. At broodstock collection levels of 4000 individuals, the data shows an additional 10 per cent catch of sawfish. An increase to 9000 individuals potentially means a 20 per cent increase in sawfish catches across the whole fishery. Furthermore, there is no species information or any species split information. This is a substantial increase in catch that is not currently accounted for in the risk assessment. It was advised that some broodstock is caught on an NPF license as opposed to a permit which may cause some overlap (duplication) with these data. This needs clarification.

The RAG noted that *P. monodon* is the only species permitted to be retained under a broodstock permit. It was advised that under the draft Commonwealth HSP, all discards must be included in stock calculations. Thus, the *P. monodon* discarded during broodstock collection should be accounted for in the NPF Harvest Strategy. This information was not available to the RAG at this meeting.

The RAG discussed the number of individuals needed to be caught to meet the required 9000 individuals. As broodstock need to be caught and kept alive, and because the ratio of males to females needs to be 50:50, how many *P. monodon* are actually required to be caught to meet these requirements, i.e. how many are also discarded to catch 4500 of both male and females. The RAG noted that in 2016, it took approximately 1200 shots to catch 1.2 tonnes of *P. monodon*. From the 1200 shots, *P. monodon* is the only animal retained and it was suggested that 1 kg of retained catch per shot is a concerning catch rate. It was also pointed out that this could produce a discard rate of between 99 and 99.8 per cent for the collection of broodstock. RAG members also queried the amount of other bycatch that are discarded when the broodstock are collected, and noted that it would be different during the banana season compared to the tiger season. It was advised the broodstock are caught throughout the year. Furthermore, if the number of individuals is increased to 9000 then that's an additional 500 shots that may be required. In total, that's approximately 1700 shots, which is equal to 300 days and is essentially adding another boat to the fishery. It was noted that there is some uncertainty with the data and the broodstock collected under an NPF licence or under permit needs to be separated to clearly identify the scale of this activity. It was suggested that clarifying the data is essential as the NPF Harvest Strategy and stock assessment relies on there being 52 boats in the fishery.

The RAG queried some of the data outputs that they were presented with, noting that there were more than 200 effort days directed to broodstock collection in 2016 and as such, the length of each shot was questioned. It was advised that the shots are recorded in the logbooks as taking from one to two hours but it is more likely the shots last only 15 minutes due to the difficulty in keeping *P.*



monodon alive in trawls any longer than this. It was confirmed that a broodstock operator had advised in previous RAG meetings that shots lasted for approximately 15 minutes.

The Chair thanked AFMA for the data provided to the meeting but advised that a number of questions still remain to be answered and as such, asked the RAG for their view on the recommendation provided at the last RAG meeting. The RAG agreed that the data needs to be further analysed and agreed the previous recommendation to increase the number of individuals to 9000 as a one-off based on seeing more information is still applicable. The RAG advised that they would like to see additional information on discards, observer data, and the separation of broodstock data collected on an NPF licence compared to permits. It was also suggested that it would be valuable to have additional observer coverage committed to broodstock trips. For TEPS, it was recommended that the need for photographs be considered. Photographs would aid the identification of TEPS and without species specific data you have to assume that all species caught are the most vulnerable species, which increases the risk profile.

A final suggestion was made regarding the presentation of data at the end of the 2017 season. As new arrangements are in the process of being finalised, the broodstock collection in the second half of 2017 could potentially be quite different to previous broodstock collection activities. Separating out this data could be informative as to how the new arrangements differ from previous broodstock collection with specific relevance to the questions raised by the RAG, i.e. questions on bycatch, discards, and TEPS.

Actions:

- AFMA to provide broodstock data on catch, bycatch and TEPS, with specific attention to discards, observer data, and the separation of broodstock data collected on an NPF licence compared to permits, at the end of the 2017 fishing season.

Next Meeting

The Chair advised the next meeting will be a face-to-face meeting in November and then closed the meeting at 4.00 pm.

List of Attachments

- 1) NPRAG 11 May 2017 – Final Agenda
- 2) NPRAG 11 May2017 – Declared Conflicts of Interest



**Northern Prawn Fishery Resource Assessment Group
Teleconference Agenda**

24 May 2017

2:00 pm – 4:00 pm (AEST)

Item	Responsibility	Paper
1. Introduction/ Meeting Management <ul style="list-style-type: none"> • Welcome • Adoption of agenda • Declaration of interests 	Chair	Yes
2. Draft Commonwealth Fisheries Policies <ul style="list-style-type: none"> • Harvest Strategy Policy • Bycatch Policy • National Plan of Action for Seabirds 	RAG	Yes
3. Broodstock Collection <ul style="list-style-type: none"> • 2012-2017 data summary • Recommendation 	AFMA	Yes
4. Other business	Chair	No



NPRAG Declared Conflicts of Interest

Name	Membership	Interest Declared
Ian Knuckey	Chair	<p>Director - Fishwell Consulting</p> <p>Fishwell Consulting has been short-listed to provide a tender to run the Commonwealth observer program. Will review role as Chair should tender be successful.</p> <p>Director - Olrac Australia – a company associated with electronic logbooks.</p> <p>Various research interests in other Commonwealth and State fisheries.</p> <p>NORMAC Scientific member</p> <p>Chair Tropical Rock Lobster RAG</p> <p>Chair Victorian Rock Lobster RAG</p>
Rik Buckworth	Scientific Member	<p>South East RAG Scientific Member</p> <p>NT Research Advisory Committee (FRDC), Chair</p> <p>Aquatic Remote Biopsy Pty Ltd, Director</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>
David Brewer	Scientific Member	<p>Researcher. Has in the past and may in future seek and receive funding for research in the fishery.</p>
Phil Robson	Industry Member	<p>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.</p>
Malcolm Haddon	Scientific Member - CSIRO	<p>Employed by CSIRO, which is a research provider, however, does not undertake research in the NPF, and has no pecuniary interest in the fishery.</p> <p>Is also a scientific member of both the GAB RAG and Sub-Antarctic RAGs; also a scientific member of the South MAC.</p>



Name	Membership	Interest Declared
Steve Bolton	AFMA Member	AFMA employee, no pecuniary interest in the fishery
Stephen Eves	Executive Officer (AFMA)	AFMA employee, no pecuniary interest in the fishery
Gabrielle Miller	Observer - AFMA	AFMA employee, no pecuniary interest in the fishery
Annie Jarrett	Invited Participant - NPFI	CEO NPFI and a member of the MSC Stakeholder Council and Chair of the Australian Council of Prawn Fisheries (ACPF). Some research items are of relevance to NPFI
Adrienne Laird	Observer - NPFI	Employed as a contractor by NPFI.
Trevor Hutton	Observer - CSIRO	Research provider. Has in the past and may in future seek and receive funding for research in the fishery.
Robert Curtotti	Observer - ABARES	Economics research provider. No current pecuniary interest in fishery. Potential to seek and receive funding for research in the fishery in future.

