

# Australian Government

# **Australian Fisheries Management Authority**

AFMANOR-928984018-137652

# **Minutes**

Meeting	Northern Prawn Fishery Resource Assessment Group (NPRAG)			
Meeting Number	May meeting	Dates	20-21	May 2025
Location	The View Hotel, Brisbane	Time	12:04	PM
Members	Dr Ian Knuckey (Chair)			
	Dr Rik Buckworth (Sci	ientific Memb	er)	
	Dr Éva Plagányi (Scier	ntific Membe	r)	
	Dr Denham Parker (So	cientific Mem	ıber)	
	Dr Tom Kompas (Eco	nomic Memb	er) ( <b>on</b> l	line)
	Mr Phil Robson (Industry Member)			
	Mr Bryan van Wyk (Industry Member)			
	Mr Ian Boot (Industry Member)			
	Ms Darci Wallis (AFMA Member)			
Executive Officer	Mr Kelvin Montanaro (AFMA)			
Apologies	Nil			
Invited Participants	Ms Annie Jarrett (NPF	FI)		
Observers/Presenters	Dr Ian Butler (ABARES) Dr Steph Brodie		Dr Steph Brodie (CSIRO)	
	Dr Richard Cottrell (A	BARES)		Mr Brandon Meteyard (NPFI) (online)
	Mr Roy Deng (CSIRO)			Ms Natalie Couchman (AFMA)
	Mr Rob Kenyon (CSIR	O)		Mr Daniel Corrie (AFMA)
	Dr Sean Pascoe (CSIR	O)		Mr Brodie Macdonald (AFMA)
	Dr Toby Patterson (CS	SIRO)		Ms Anna Willock (AFMA)

Agenda Item	Title/Topic/Issue	Notes, Action & Recommendations	
1.	Preliminaries	Welcome and apologies	
		The Chair, Dr Ian Knuckey, opened the meeting with an Acknowledgement of Country and welcomed participants. The Chair also facilitated the introduction of meeting participants and noted apologies, which is recorded in the table above. Meeting participants were informed that the meeting would be recorded for the purpose of assisting the preparation of meeting minutes.	
		Declarations of interests	
		NPRAG noted, in line with Section 4.14 of <u>Fisheries Administration Paper 12 – Resource Assessment Groups</u> (FAP12), the requirement for all meeting participants to declare relevant interests, not limited to pecuniary gain, regarding all agenda items proposed for the May NPRAG Meeting. Meeting participants discussed and agreed how declared interests would be managed. Declared interests and how they were managed at the May NPRAG Meeting are recorded in the register at <b>Attachment B</b> .	
		Industry	
		NPRAG noted that there was a separate agenda item 10 (total allowable effort (TAE) setting), allowing industry to be present for discussions under agenda item 5 (NPF Stock Assessment). Industry members, invited participants, and observers left the room at 12:15pm. NPRAG <b>agreed</b> that industry members could be present for discussion but not for the TAE recommendation.	
		Scientific members	
		NPRAG noted that the agenda item 7 (2026/27 Annual Research Statement) may raise conflicts of interests with scientific members. Scientific members and potentially conflicted observers left the room at 12:17pm. NPRAG <b>agreed</b> that scientific members and observers should be involved in discussions but should step out of the room if NPRAG makes any specific recommendations relating to research projects/scopes.	
		Adoption of agenda	
		The agenda was adopted as final (Attachment A).	
		Minutes of previous meetings	
		AFMA noted that the minutes from NPRAG meetings held on November and February were distributed to NPRAG members for feedback prior to finalisation. Members supported the acceptance of the minutes as a true and accurate record of the meeting, which are available on the <u>AFMA website</u> .	
		Correspondence	
		NPRAG noted the recent NPRAG correspondence.	

#### 2 Actions arising Actions arising from previous meetings from previous NPRAG noted the status of action items from previous meetings, and the paper was meetings taken as read. Verbal updates were provided for the following action items: November 2024 (Action 10) – NPRAG Chair to write to the AFMA Commission expressing concerns that the automation process has not resulted in time or cost saving. The Chair, Dr Ian Knuckey, advised the action item had not yet been progressed. June 2024 (Action 5): NPFI/AFMA/NPRAG to confirm the approach to calculate fuel price for the MEY trigger in the future. NPRAG was advised that flexibility was required for the fuel price calculation moving forward. A revised calculation method was agreed for the 2024 full assessment and the 2025 'mini' assessment, using the average price from three ports (Carins, Darwin and Karumba). NPRAG supported the fuel price calculation method becomes a standing annual agenda item for the RAG (either at the February meeting or out of session in April (noting NPFI discussions to confirm fuel prices normally occur in April. Data management processes ABARES and the wider NPRAG sought clarification on data management issues relevant to action item 1 (17-18 May 2022). Questions were raised about data cleaning processes and what NPF data forms the 'single source of truth'. The importance of having the same source of data across organisations was emphasised. Discussions briefly summarised the current data-handling process, which include: Dataset gets sent to CSIRO, undertakes **AFMA** data quality updates the final changes to vessel database and AFMA data sends final monitoring data to AFMA warehouse tracked in system (VMS) data. spreadsheet Action 1: AFMA to discuss with ABARES offline about NPF data quality control and timelines for Fishery Status Report purposes. Action 2: AFMA, NPFI and CSIRO to discuss offline about NPF data processes and determining what data will become the 'single source of truth'. Action 3: AFMA to provide a flow diagram of all the NPF data processes for the next NPRAG meeting. 3 Outcomes of NPRAG noted a brief update from AFMA on the outcomes of out-of-session items. out-of-session items

#### 4 Update reports

NPRAG noted updates from industry, AFMA, CSIRO, and ABARES regarding current management arrangements and activities in the NPF.

#### **Industry update**

NPRAG noted the verbal update from industry members that:

- The banana prawn season had the lowest participation on record due to the late rainfall/monsoon arrival not flushing the prawns out onto the fishing grounds combined with poor market conditions, continuing the below average fishing season performance of the past four years.
- Catches were poor in normally productive areas, with smaller prawn sizes
  overall. The smaller prawns were widely distributed, indicating that they
  were pushed further offshore than usual and 'green water' (indicating a
  freshwater layer over a lower saltwater layer) was seen throughout the
  fishing grounds. These were suggested to be due to the late monsoon which
  pushed the smaller prawns out and that the normal mixing of the water
  hadn't yet occurred.
- Industry implemented a voluntary in-season closure at Sweers Island due to the very high numbers of small prawns.
- Industry raised concerns about continued poor prawn recruitment and potential compounding future impacts from increasing water extraction in the key catchment areas.
- The only positive for the season was that fuel prices had reduced to around 2022 levels.

NPRAG also noted the NPFI update, including the following key points:

- The 2024 CMO data collection significantly exceeded the required annual targets and two returning CMOs were recruited for the 2025 banana prawn season.
- The AFMA data processes continue to improve, with no issues with the provision of the required data downloads.
- A 'revamped' economic survey with improvements was undertaken in 2024, with industry members urged to continue collecting data.
- The Electronic Monitoring (EM) data and Ships of Opportunity (FishSOOP) temperature data continues to be collected, although some operators encountering significant issues with their EM equipment.
- Indigenous engagement continues, allowing industry to provide Indigenous communities with insights into the NPF, answer questions, and potentially develop partnerships for data collection.
- NPFI acknowledged the continued data collection by industry, especially the recent challenges in the fishery.

#### **AFMA** management update

NPRAG noted the update from AFMA, including the following key points:

- Wildlife Trade Operation (WTO) conditions, with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) confirming the condition 5 requirements were met.
- A requested revision to condition 5 to align with the development of the NPF data strategy, although AFMA is awaiting confirmation from the DCCEEW that this has been approved by the delegate.
- Work on sawfish bycatch mitigation was on track to meet condition 7 and progress was being made being made to meet condition 8.

- Recent indigenous engagement, including attendance at the recent Laynhapuy IPA Advisory Committee Meeting.
- The Management Advisory Committee (MAC) and Resource Assessment Group (RAG) review has been completed, with revised paper and minute templates currently being trialled.
- There was no change in the listing status of narrow sawfish (*Anoxypristis cuspidata*).
- AFMA observers had begun using the e-observer application in the field.
- United States Turtle Excluder Device (TED) inspections were expected to take place in July.

NPRAG heard concerns from industry members about the AFMA endangered, threatened, and protected (ETP) reporting process. NPFI noted errors had been identified in published 2024 ETP reports and raised concerns with incorrect data being publicly available. AFMA advised that ownership of responsibilities for the quarterly ETP data reporting had recently moved from the observer team to the data team, noting that a preliminary report is published, followed by a final report around 2 and 5 months respectively after each quarter. NPFI also sought clarification about why the measure 'percentage of logbook shots observed' was used in the NPF Annual Observer Report. They noted that using logbook shot as a measure might be misleading and that 'days' would be more accurate.

In response to questions about the new e-observer application, AFMA confirmed that observers have back-up options available should an issue arise. NPFI noted that it would be beneficial to receive a presentation from AFMA on e-observer and associated quality control processes before data is entered into the AFMA data warehouse.

**Action 4:** AFMA to confirm what "percentage of logbook shots observed" refers to in the 2024 NPF Annual Observer Report and whether days would be a more accurate measure.

**Action 5:** AFMA to confirm the process of correcting erroneous reports following subsequent ETP data becoming available.

**Action 6:** AFMA to determine where ETP interactions are being reported and how they are being reported.

**Action 7:** AFMA to organise a presentation on e-observer data collection and data warehouse processes (including QC).

#### **CSIRO** update

NPRAG noted CSIRO update, including the following key points:

- The Karumba mangroves continue to re-establish following the 2016 dieback and recovery. Mangrove 'trunk-density' is similar to pre-dieback, though the leave canopy is about two thirds the original canopy height.
- Rob Kenyon attended the 2025 Port of Weipa Dredging Campaign Technical Advisory Consultative Committee.
- An upcoming session chaired by CSIRO members at the Australian Society for Fish Biology (ASFB) Conference in Darwin. The focus of the presentation is on the challenges and successes of managing northern fisheries and ecosystems.

- CSIRO is having ongoing discussions with the Queensland Science leader Water Planning Ecology, DES to explore funding options to undertake further research on downstream impacts of water extraction.
- Mr David Carter (CEO, Austral Fisheries) and Dr Éva Plagányi (CSIRO) attended the Honiara Summit. The NPF was discussed at the meeting and the overall atmosphere was positive about fisheries management supporting sustainable development goals. The role of co-management was also discussed.
- Dr Éva Plagányi was invited to present at an international conservation congress in Brisbane about water modelling in the Gulf of Carpentaria.
- Dr Éva Plagányi will be in Brussels in July to present on ecosystem-based fisheries management at a symposium focused on European fisheries management. She indicated this conference has potential relevance to Australian fisheries management.
- A <u>research paper</u> on trace element and  $\delta^{13}$ C values of banana prawns (*Penaeus merguiensis*) has recently been published.
- Steph Brodie (CSIRO) continues to facilitate BOM and CSIRO climate report cards and participated with Eva Plaganyi, Laura Blamey and Arani Chandrapavan in presenting a northern Australia climate briefing.

**Action 8:** CSIRO to provide the climate briefings link to NPRAG members.

#### **ABARES** update

NPRAG noted an update from the ABARES observers on the changed *Fishery Status Report* (FSR) timelines for 2025, allowing for publication in mid-July, and the biennial NPF economic survey. The main impetus for the changed publication timeline was to meet new Department of Agriculture, Fisheries and Forestry (DAFF) annual reporting requirements.

A significant consequence of the timeline changes for the NPF include that tiger prawn stock assessments would be too close to the publication date for review and inclusion in the report. ABARES confirmed that the stock assessment reported in the FSR would be the most recent published stock assessment (incorporating data up until the previous calendar year to the assessment). This could result in the ABARES assessment being based on data that is over two years old. Industry members raised concerns about whether explicit statements will be included in the report to acknowledge that stock assessment information may not be based on the most contemporary research available and information for highly fluctuating stocks could be missed.

ABARES acknowledged that the revised report timing wasn't ideal for the NPF, noting that any uncertainties would be identified in the report and that move to digital FSR publication could provide potential future opportunities for varied publication times. AFMA clarified that the purpose of the FSRs was to review AFMA's performance and while all fisheries have the same publication date, the timing can't allow for the most up-to-date research in all fisheries to be included.

### 5 NPF Stock Assessment

#### **Climate and Ecosystem Status Report**

Ms Natalie Couchman (AFMA) provided a presentation on the AFMA climate adaptation program, with NPRAG noting the following key aspects of the program:

- Determining climate impacts at different scales.
- Working with experts to establish processes to predict, mitigate, and manage climate impacts.
- Implementation through climate and ecosystem status reports, fishery summaries/fact sheets, the climate adaptation handbook (applied through workshops, research, and trials of the climate risk framework.

Dr Steph Brodie (CSIRO) presented the Climate and Ecosystem Status Report to NPRAG which included the following key topics:

- An analysis of historical data for climate drivers, regional rainfall dynamics, and ecosystem dynamics.
- Forecasts for 2025 including El Niño-Southern Oscillation and Indian Ocean Dipole climate influences, regional dynamics, and ocean forecasts.

Following the presentation, Dr Steph Brodie requested NPRAG advice on recent climate observations. Items raised included:

- The poor early season rainfall and late arrival of the monsoon resulted in low banana prawn catches.
- Sea level rise impacts hadn't been seen recently on key infrastructure (i.e. sea walls).
- Cyclone forecasts appear to have increased, although industry reported less impacts and damage from cyclone activity in recent years.
- Consideration of upper atmosphere systems and how they might influence climate variables could be valuable.
- A layer of freshwater was found in deeper water than usual with minimal mixing due to calm conditions and late monsoon rains.
- Poor water quality was discharged from the Norman River.
- Barramundi fishing was very good and commercial catches of gold-band snapper were record-breaking, potentially due to increased predation on juvenile prawns.
- Squid catches were much lower than average, with limited catches of squid.

Scientific members emphasised the importance of gathering at-sea-observations to NPRAG. They also suggested further investigation to identify on any potential indicators that could have predicted the anomalous year in 2025.

**Action item 9:** AFMA Climate Team/Steph Brodie to retrospectively look at BoM reporting to see whether there were any indications that 2025 would be an anomalous year.

#### **Tiger Prawn Stock Assessment**

NPRAG noted three CSIRO presentations on the NPF tiger prawn stock assessment:

- Summary of 2024 catch and effort data and fishery independent survey abundance indices.
- Results of 2024 stock assessment base case model with revised economic data.

Sensitivity analysis with alternative fleet sizes (35, 41, 48 and 52 vessels, plus with efficiency factors) and fuel cost and tiger prawn price scenarios (1.15 x tiger prawn price; 0.75 x fuel cost AND 1.15 x tiger prawn price; 0.85 x fuel cost).

2024 catch and effort data and fishery independent survey abundance indices

- Compared to 2023, grooved tiger prawn catch increased by 10% (with a 3% increase in nominal effort) while brown tiger prawn catches and nominal effort significantly decreased by 41% and 58% respectively.
- Overall tiger prawn catches and nominal effort decreased by 3% and 13% respectively, with a nominal catch-per-unit-effort (CPUE) increase for grooved and brown tiger prawns of 7% and 41% respectively (compared to 2023).
- Blue and red endeavour prawn catches increased by 23% and 10% respectively (compared to 2023).
- Compared to 2023, white banana prawn catches and nominal effort decreased by 41% and 19% respectively and redleg banana prawn catches and nominal effort decreased by 85% and 66%.
- The 2025 recruitment survey indices for grooved and brown tiger prawns were lower than 2024 (4.33 and 3.15 respectively), with the brown tiger prawn index the lowest since 2003.
- The 2025 recruitment survey indices for blue and red endeavour prawns were lower than 2024 (1.58 and 0.51 respectively), with the blue endeavour prawn index the lowest since 2003.

Results from 2024 tiger prawn stock assessment with updated economic data

- The 2024 tiger prawn stock assessment base case scenario was run using revised economic data provided by Dr Tom Kompas.
- Fishery average capital value per vessel was also revised based on ABARES published statistics.
- There were notable changes to economic data compared with the 2024 stock assessment inputs, including a:
  - 22% reduction to tiger prawn prices to \$21.71/kg.
  - 45% reduction in vessel fuel costs to \$2,623/vessel/day.
  - o 70% increase in capital value per vessel to \$928,190.
- The change in capital value was caused by delays and reformatting in ABARES surveys resulting in capital value being estimated previously, although this had no influence on TAE but altered the profitability estimates of the fishery.
- The key outputs of the revised model were:
  - No change for the NPF's sustainability.
  - o Increase in the maximum economic yield (MEY) and increased projected negative profit (due to the revised capital values).
  - The revised model estimated a higher 2030 TAE of 5,557 effort days (compared to 4,509 days from the 2024 assessment).
  - The revised 2025 TAE is still bound by the minimum effort threshold (MET), with an output of 4,014 boat days.

NPRAG discussed the revised stock assessment results, noting the following key points:

- Industry members noted that the tiger prawn prices used in revised model were lower than current prices, which were around \$25-\$27/kg. There are also significant price differences between exported product and the domestic market, with the export market generally getting higher prices than the domestic market.
- It's very difficult to project prawn prices into the future due to the market uncertainties.
- Dr Tom Kompas confirmed fuel cost/day was directly sourced from survey data, using the average reported fishing cost per day (excluding transit costs).
- NPRAG noted a de-identified figure showing the distribution of total cost (in thousands of \$) across the NPF fleet which demonstrates the significant heterogeneity in profitability across the fleet.

#### Sensitivity tests

- Fleet efficiency increased as vessels were removed from the fishery (assuming those removed were the least efficient vessels).
- The overall outcomes under the alternative prawn price and fuel cost scenarios tested were:
  - $\circ$  The estimated MEY catch level increased for brown and grooved tiger prawns and  $E_{2023}/E_{MEY}$  slightly decreased from the base case.
  - The 2023 level of profit loss decreased, with the net projected period profit (to 2030) becoming positive.
  - o The total allowable effort for 2025 exceeds the MET.
  - TAE in 2030 provides ~600 extra days of fishing.
- In the alternative fleet size scenarios:
  - The 2023 profit loss decreased as the number of vessels in the fleet decreased, although a positive net projected period profit was not reached under any vessel size (although it was very close under a 35vessel scenario).
  - Adding efficiency factors made minimal difference to the results.
  - As the number of vessels decreased, the season length increased.
  - The optimum number of vessels to maximise season length was estimated to be between 35 and 43 vessels, depending on the TAE year in question (i.e., 35 for the 2025 TAE and 43 for the 2030 TAE estimate).

**Action item 10:** Dr Tom Kompas to provide a presentation on his Artificial Intelligence (AI) fuel price model at the next NPRAG meeting.

**Action item 11:** Dr Tom Kompas to provide clarification on the impacts of fleet adjustment and extrapolation and explain why fuel price changes have minimal impacts on modelled results.

**Action item 12:** CSIRO to provide presentations for distribution to the RAG.

#### **Redleg Banana Prawn Stock Assessment**

Dr Éva Plagányi provided a presentation on the redleg banana prawn stock assessment, with NPRAG noting the following key points:

		<ul> <li>The reference environmental indicators (neutral SOI and low January and February rainfall) do not provide any strong influence on the 2025 catch rates.</li> <li>A total of 62 boat days occurred in the redleg banana prawn fishery in 2024, which is below the 70 day effort threshold for sufficient data being available to undertake an assessment under the NPF Harvest Strategy 2024.</li> <li>Under the harvest strategy, if less than 70 days effort occurs (with no stock assessment undertaken), the fishery is opened in the second season in the following year. Because the insufficient data is due to low levels of fishing effort, the risk to the stock sustainability is considered to be low.</li> <li>47 tonnes of prawns were caught in the Joseph Bonaparte Gulf (JBG) in 2024 during 58 days of effort. There was a below average nominal CPUE in 2024.</li> <li>CSIRO estimated no change to fishing power in 2024 relative to 2023.</li> <li>The 2023 recruitment model estimate suggested that 2024 biomass may be below average.</li> <li>Due to the low 2024 fishing effort, there were no concerns about stock sustainability and opening the fishery.</li> <li>As no assessment was undertaken in 2025, NPRAG agreed that the outputs of the 2024 redleg banana prawn stock assessment (TAE of 412 boat days) should be used as the basis of the 2025 TAE recommendation.</li> </ul>
6	Banana prawn MEY in-season trigger annual review	NPRAG noted a presentation by Dr Sean Pascoe (CSIRO) on the banana prawn MEY in-season trigger annual review, which is a retrospective analysis comparing actual vs estimated costs and their impact on the MEY trigger. The actual costs are based on the end of year economic survey undertaken by NPFI. CSIRO noted that the banana prawn price is biggest driver for the model outcome.
		The analysis showed that the banana prawn price was underestimated by 33% and fuel prices were overestimated by 10.5%. This is in contrast to most other years, where the annual estimates are generally very close to the actual values. More variation has been seen in the 2023 and 2024 figures due to the significant recent variability in the global fuel and seafood markets.
		The effect of these combined underestimations was that a more precautionary MEY trigger was set than necessary.
7	2026/27 Annual Research Statement	NPRAG considered the 2026-27 annual research statement, noting the following key points:  • While three research priorities were identified at the February 2025 NPRAG
		meeting, AFMA and NPFI subsequently agreed that scopes for these projects would not be developed at the present time due to the significant economic pressures currently facing industry. These were instead included under
		potential future research priorities in the 2026-27 statement.  Al Project
		<ul> <li>As the proposed artificial intelligence (AI) research scopes are not NPF-specific, funding should be sought through the Fisheries Research and Development Corporation (FRDC) to lead on a future AI project.</li> <li>Further coordination between jurisdictions was required for fisheries AI research and that initially a desktop review of AI work undertaken to date</li> </ul>
		would be an important first step to further this goal.

 The AFMA member noted that the AFMA EM team was currently leading engagement on AI applications to EM.

#### **Economic sensitivity**

- Economic sensitivity analysis was agreed to be retained as a priority in the annual research statement, especially in the context of potential fleet adjustments, with minor modifications proposed.
- The research and economic participants suggested maintaining the project to estimate banana prawn price flexibilities to provide insights about whether catches above a certain amount can be detrimental to future price flexibility.

### Scampi ID

- The priorities on scampi identification and developing assessment methods and harvest strategies for by-product species weren't considered current priorities considering the economic climate.
- NPRAG agreed that an opening statement should be included in the 2026-27 Annual Research Statement explaining that the current economic condition of the NPF limits the prioritisation of research for the fishery.

**Recommendation 1:** NPRAG **ENDORSED** the Northern Prawn Fishery Annual Research Statement 2026/27, noting the following agreed changes:

- a) That the Further investigation of the use of artificial intelligence (AI) in the NPF is removed from the future NPF research priorities and included in future projects for external funding.
- b) AFMA to add a short paragraph scoping out the research priority economic sensitivity modelling to analyse the impacts of fleet heterogeneity on bioeconomic modelling.
- c) Remove Developing assessment methods and harvest strategy for byproduct species in the NPF and Scampi identification project from Research projects identified for inclusion in future research statements.
- d) AFMA to insert a paragraph on page 2 of the NPF Annual Research Statement 2026/27 explaining that the current economic condition of the NPF limits the prioritisation of research for the fishery. AFMA should distribute the paragraph for comment before the Annual Research Statement goes to NORMAC in July.

**Action item 13:** AFMA to undertake a desktop-study scoping exercise as a first step to broader coordination between jurisdictions on AI projects.

**Action item 14:** AFMA to report back to NPRAG on contemporary EM and AI discussions occurring between jurisdictions and any coordination work that is taking place.

**Action item 15:** AFMA should seek to advance a broader AI project encompassing multiple fisheries in collaboration with FRDC.

8 Marine
Stewardship
Council (MSC)
Conditions
Update

#### NPF MSC condition progress and the NPF Sawfish Plan 2024-2026

NPRAG noted an update from NPFI on progress on MSC conditions. The NPF passed its first annual surveillance audit under its current MSC certification. Additionally, the scoring on MSC conditions improved compared to 2023, largely thanks to the contribution of CSIRO.

#### **NPFI Sawfish Research Projects**

NPRAG noted that NPFI has completed two major projects relevant to the fishery:

- Investigating potential for fishing gear, technology and management measures to reduce sawfish and sea snake interactions in Australia's Northern Prawn Fishery
- Mitigating Sawfish Interactions in the Northern Prawn Fishery

NPFI and the broader RAG membership shared their appreciation for the effort and collaboration of all those involved in the projects. The findings of the reports were shared with the Australian Council of Prawn Fisheries (ACPF), environmental non-governmental organisations, and state-fishery managers. NPFI also noted that they submitted a related abstract for the Australian Society for Fish Biology conference in Darwin.

#### Narrow sawfish FRDC close-kin-mark-recapture (CKMR) project update

Dr Toby Patterson (CSIRO) presented preliminary results from the narrow sawfish FRDC CKMR project to NPRAG. Key findings included:

- 754 sawfish samples were available for use in total, approximately 300 of which were collected during the FRDC project.
- There was a wide spatial coverage and apparent female bias in sampling.
- 42 samples did not pass CSIRO's data quality control check, possibly resulting from species misidentification or duplicates.
- 13 kin pairs were detected using the CSIRO 'kinference' package:
  - o 7 half-sibling pairs
  - o 4 full-sibling pairs
  - 4 parent-offspring pairs
- Wide separation between half-sibling pairs suggested wide dispersal, however, there were no cross-Gulf of Carpentaria matches.
- Limited data and low hit rates and numbers of kin pairs resulted in a high degree of uncertainty. However, it appeared there is a large population of breeding adults (estimated at approximately 50,237 individuals, although the uncertainty ranged between 4,263 and 604,243).
- The research at a very minimum, indicated that there is unlikely to be a small population of narrow sawfish.

NPRAG discussed the outcomes of the research, noting the following key points:

- It may be possible in the future to determine sex-specific survival rates, noting the varied life histories of male and female sawfish, although there is insufficient data currently available for this analysis.
- The preliminary results of the CKMR analysis are consistent with the preliminary Tiger MICE research outputs for narrow sawfish.
- CSIRO encouraged industry to continue to collect samples of narrow sawfish as this additional data would increase the certainty in the model outputs.

# NPFI indicated that the new small bar TEDs being trialled are avoiding catches of smaller sawfish, potentially limiting data collection. The incentives for industry (including lotto-style cash and t-shirts) have been effective at encouraging industry data collection with CSIRO and NPFI agreeing to discuss offline about how to continue the work in a low/no cost way. Action item 16: NPFI and CSIRO to discuss potential low-cost options to encourage continued industry participation in the Sawfish research. 9 Data collection **Electronic monitoring** in the NPF Mr Brodie Macdonald (AFMA) provided an update to NPRAG on the AFMA EM Program. Key points included: The NPF trial was largely complete, although the systems remained on in banana prawn season to continue data collection. The AFMA Commission decided to proceed with EM implementation in the Great Australian Bight (GAB) trawl fishery to support independent monitoring of ETP species. The AFMA Executive and Commission were looking to make decisions in July for the Commonwealth Trawl Sector (CTS), NPF and western trawl fisheries. A decision at the program level was required by the AFMA Commission due to mutual dependencies and the influence of economies of scale factors. The NPF EM trial report was nearing completion but had not been finalised internally at AFMA. The trial report would be taken to the NPF EM Business Reference Group (BRG) and NORMAC in July for stakeholder feedback. There would not be an opportunity to obtain feedback from NPRAG prior to a decision being made by the AFMA Commission due to the tight timeframes, with the EM project expenditure expiring on 30 June 2026. NPRAG Chair declared an interest due to involvement in a state trawl fishery EM project. Industry members were also identified as having an interest based on costs and monitoring. NPRAG raised the following points/concerns: Industry and scientific members noted concern that NPRAG expertise and advice was being excluded and was required to inform the AFMA Commission's decision in implementation of EM in the NPF. NPRAG did not consider NORMAC an appropriate forum to provide scientific advice to the Commission regarding the appropriateness of EM implementation with respect to data and science implications. AFMA advised that NPRAG would be asked to provide advice for data collection strategies following a decision to implement EM. Industry expressed strong dissatisfaction about plans to not undertake a cost-benefit analysis as outlined in the NPF EM Trial Project Plan, which could impact the trust and reputation of the co-management relationship between NPFI (who encouraged industry to participate in the trial) and AFMA. Industry members also expressed concern on increased financial burden on operators from EM implementation through upgrades and ongoing maintenance costs, noting the current economic climate in the fishery. Significant concerns were raised about the potential impact of EM on NPF data collection. If EM was implemented, the biological sampling collected by

		<ul> <li>Additionally, there was potential risks in creating data gaps with a rushed transition to EM, which had occurred in other fisheries such as the Southern Shark Fishery.</li> <li>CSIRO raised concerns about the accuracy of species identification from EM would be, in particular sea snakes. It was suggested that EM implementation may challenge conservation aspirations for small species, due to disproportionate capture of large, charismatic ETPs.</li> <li>NPRAG questioned the tight timeframes on an EM implementation decision and whether adequate information is available for the AFMA Commission to make an informed decision about whether EM is fit-for-purpose in the NPF (including the lack of risk assessments, transition and cost plans, and consideration of the ecological context of the NPF).</li> <li>AFMA advised that the EM program funding is only available until June 2026, hence contributing to the urgency to decide about EM implementation.</li> <li>Following NPRAG discussion, there was agreement amongst the Chair, industry, and scientific members to write to the Chief Executive Officer of AFMA to put forward their concerns and dissatisfaction with the chosen process for EM decision-making.</li> </ul>
		<b>Action item 17:</b> NPRAG Chair Dr Ian Knuckey, with input from Scientific Members Dr Eva Plaganyi and Dr Denham Parker to write to AFMA putting forward NPRAG's concerns and dissatisfaction with chosen process to implement EM in the NPF without the RAG having seen either the final report of the cost-benefit analysis or being able to provide further input.
		FishSOOP  NPRAG noted that FishSOOP researchers had reached an agreement with NPFI that the NPF data would not be immediately made public but uploaded twice annually following each fishing season to maintain commercial confidentiality.
		<b>Action item 18:</b> Dr Ian Knuckey (as co-investigator in the FishSOOP project) to provide an out-of-session update on the FishSOOP project to support the Climate and Ecosystem Status Report and provide an update at the next NPRAG meeting.
10	2025 Total Allowable Effort	NPRAG considering the revised stock assessment model outputs presented by CSIRO under agenda item 5, noting the following key points:
	Setting	<ul> <li>NPFI emphasised that the tiger prawn price used in the analysis was lower than the current prices, although noted that relatively large changes to prawn price and fuel cost were required to increase the TAE above the MET.</li> <li>While some concerns remained that such large price changes were required to increase TAE outputs above the MET, NPRAG agreed that the revised model outputs showed increases to future TAE outputs from the 2026 season (compared to the 2024 model outputs which didn't show TAE increases until 2029).</li> <li>No assessment was undertaken for redleg banana prawns due to insufficient data (in line with the NPF Harvest Strategy 2024), with NPRAG agreement that the outputs of the 2024 redleg banana prawn assessment should be used as the basis of the TAE recommendation.</li> </ul>
		All industry members left the room prior to the final recommendation.

AFMA observers would be removed and a decision was being made before

alternative sampling options had been costed.

**Recommendation 2:** NPRAG accepted the outcomes of the revised 2025 base case, recommending a TAE of 4,014 effort days for tiger prawns in the 2025 fishing season.

**Recommendation 3:** Noting an assessment wasn't undertaken in 2025, NPRAG supported using the 2024 redleg banana prawn assessment outputs as the basis of the TAE recommendation, recommending a TAE of 412 boat days for the JBG.

# 11 Tiger MICE Project Update

NPRAG noted a presentation from Dr Éva Plagányi about the FRDC project *Methods* to account for climate impacts in fisheries models and management: Case study example of environmental contributors that affect Tiger Prawn population dynamics (MICE Project), including the following key discussions points:

- Spatial rainfall volume and timing changes, impacts of increased temperatures and other anthropogenic impacts (e.g. water quality issues and pollution) were hypothesised as potential reasons for the low banana prawn recruitment in the East Coast of the Gulf of Carpentaria.
- Industry suggested that other anthropogenic impacts were more likely the cause, as recruitment had failed in the eastern gulf in average rainfall years.
- Dr Plagányi recommended that water samples should be taken to test whether water quality was a contributing to issue.
- Brown tiger and blue endeavour prawns were the commercial prawn species most likely to be impacted by climate change, with species like grooved tiger and banana prawns more resilient to climate impacts.
- The Tiger MICE model separates the effects of fishing and climate change, with preliminary results attributing the recent changes in stock levels to climate variables.

NPRAG noted the presentation from Rob Kenyon on the November 2024 fieldwork to support the MICE project, including the following preliminary results:

- Preliminary analyses suggest no reduction in juvenile tiger prawn abundance at Groote Eylandt between 2024 and the 1980s, although there was an increase for the reef-top habitat at one site.
- There was a substantial reduction in juvenile tiger prawn abundance within one seagrass community type in Blue Mud Bay, although banana prawns were very abundant at this location in 2024. In the 1980s they were not abundant within seagrass habitat in the Groote/Blue Mud Bay region.
   Competition between species was identified as a potential cause.

NPRAG noted the next steps outlined for the MICE project:

- Continuing collation of environmental data for MICE model and analysis of juvenile seagrass-tiger prawn survey data.
- Finalising the MICE model, including input of the latest environmental and NPF survey data.
- Communications and outreach through project publications, presentations, and a final report.
- Exploring the utility of applying the MICE model on the NPF under future proposed water resource development and potential application in other fisheries.

12	Ecological Risk Assessment Update	NPRAG noted the redleg banana prawn ecological risk assessment (ERA) process to date and considered the final ERA report and draft NPF ecological risk managemen (ERM) response. Key discussion points included:	
		<ul> <li>Four high risk species of sawfish were identified in the redleg banana prawn ERA, consistent with the results of the tiger and banana prawn sub-fisheries.</li> <li>As the high-risk species were consistent across the NPF sub-fisheries, the ERM response was developed to apply to the NPF as a whole (not just the redleg banana prawn sub-fishery).</li> <li>The ERM response outlined the key management and monitoring arrangements in the fishery, with the management response for sawfish outlined in the NPF Sawfish Plan 2024-2026 (finalised in late 2024).</li> <li>NORMAC endorsement of the final ERA report and NPF ERM response would be sought at the upcoming meeting in July.</li> <li>Rob Kenyon noted that the outcomes of the water resource development research suggested greater freshwater sawfish numbers in Joeseph Bonaparte Gulf rivers, which potentially impacts the chance of interactions compared to the Gulf of Carpentaria.</li> </ul>	
		<b>Recommendation 4:</b> NPRAG <b>ENDORSED</b> the final redleg banana prawn ERA report and NPF ERM response.	
13	AFMA's Climate Risk Framework	Ms Natalie Couchman provided an update on AFMA's Climate Adaptation Program and Climate Risk Framework, with NPRAG noting the following key points:	
		<ul> <li>The AFMA Commission would decide on broader implementation of the CRF in September 2025.</li> <li>The Climate Risk Framework (CRF) Working Group met with industry representatives, management, and scientific stakeholders at a meeting in early November 2024 to consider the trial application of the CRF to brown tiger prawn, grooved tiger prawn, and blue endeavour prawn.</li> </ul>	
		NPRAG provided feedback on the outcomes of the trial application of AFMA's CRF in the NPF:	
		<ul> <li>Concerns were raised regarding potential impacts of feedback loops, including responsibility for and periodicity of re-assessments. AFMA advised that similar feedback had been received from other committees and this would be incorporated into the revised framework prior to Commission consideration.</li> </ul>	
		<ul> <li>AFMA also confirmed that the responsibility for updating the assessments was currently the responsibility of the AFMA climate adaptation team.</li> <li>NPRAG agreed there would be benefits to harmonising the CRF efforts with other jurisdictions and sectors to share resources.</li> </ul>	
		<ul> <li>Scientific members questioned how research that is of higher relevance to prawn species, would be incorporated into the report.</li> <li>Industry raised concerns about the CRF Species Assessment Reports being made public before the outcomes of the current Tiger MICE research was finalised, as the benefits would be marginal for a well-developed fishery like the NPF.</li> </ul>	
		<ul> <li>NPRAG advised to maintain the residual risk scores for each species, but were not comfortable with finalising the assessments nor providing formal</li> </ul>	

advice to the Commission until outcomes of the Tiger MICE project can be incorporated.

Ms Natalie Couchman advised that the CRF is expected to be reviewed every five years if approval is provided by the AFMA Commission. A weight-of-evidence approach would incorporate contemporary research findings, and reports would be updated as new information becomes available or when mitigation measures are introduced.

**Action 19:** That further clarity is provided by AFMA on the future resourcing and funding for the CRF (if approved by the AFMA Commission).

**Recommendation 5:** That the CRF Species Assessment Reports <u>are not</u> published publicly until further results of the Tiger MICE project are available.

# 14 Research project updates

NPRAG noted updates on three research projects:

Integrated Fishery-Independent Data Program

- A survey was undertaken during the late February/early March 2025 moon phase.
- The sub-adult recruitment index for grooved tiger prawn was lower for 2025 (compared with 2024) and similar to the lowest index in 2023. Five of the past 10 years showed indices less than the series low level of 4 prawns per hectare
- The brown tiger and blue endeavour prawn abundance indices were the 2<sup>nd</sup> lowest and lowest of the series respectively, with the brown tiger prawn index declined significantly from 2023 and 2024 and was not substantively different to the lowest index in 2004.
- The gulf-wide banana prawn index was moderate, but the highest of the series banana prawn recruitment indices at Weipa probably contributed substantially to the banana prawn index. All other regional indices were below-average (Karumba), low (Mornington), to very low (Vanderlins and Groote). Length-frequency data showed that prawn size at Weipa was 'average' while banana prawns at Karumba were about 10 mm carapacelength smaller than previous years. Late-season river flows in southern gulf rivers occurred in late February. High survey catches and commercial catch occurred adjacent to high rainfall within GoC catchments (e.g. Weipa region and Cape Keerweer). No cyclones developed in the GoC in 2025, the usual atmospheric phenomena that transfer moisture and precipitation south to the Gulf savannah.
- The grooved and brown tiger prawn indices at Groote Eylandt had decreased in 2025 (after small increases were seen from 2023 to 2024). For both tiger prawn species, the 2023 indices were the lowest of the series.
- The regional indices for both grooved and brown tiger prawns at Vanderlins were the lowest of the series. Higher numbers of year-old mature grooved tiger prawns (2024 recruits, 2.3 ha<sup>-1</sup>) were caught at Vanderlins than 2025 recruits (1.9 ha<sup>-1</sup>)., Both the regional index and length-frequency data showed that spawning-age grooved tiger females were present at Vanderlins, highlighting that the very low number of 2025 recruits was an anomalous result compared to all other years. It was suggested this indicated a potential recruitment issue, rather that environmental impacts (e.g. the poor rainfall in western GoC catchment in 2025).

		<ul> <li>Low recruitment indices were seen at Mornington for all prawn species, and the distribution of brown tiger prawns did not extend eastwards into the Karumba region as it does in years of high abundance (e.g. 2026 and 2023). Average catches of grooved tiger prawn were taken at Weipa, the highest catch index of any region.</li> <li>Action 20: CSIRO to present additional details on the biological elements of the tiger prawn stock assessment model, including the key components influencing the model outputs, at the May 2026 NPRAG meeting.</li> </ul>
		Bycatch Monitoring Reports
		<ul> <li>NPRAG noted the written update on the Bycatch Monitoring Project provided in the papers.</li> <li>AFMA advised that the project milestones were updated to undertake data processing and analysis annually and CSIRO had recently provided an updated Bycatch Monitoring Project report, which included an updated trend analysis using 2023 fishing seasons data.</li> <li>The next project milestone is due in November 2025, which requires the processing of the 2024 CMO data and update of the trend analysis.</li> </ul>
		Southern Gulf Water Resource Assessment
		<ul> <li>Arable soils were found in Doomadgee Plain, Gulf Fall, Barkly Tableland, and Armraynald Plain, with irrigatable soil being very limited in the Southern Gulf.</li> <li>Water resource development (WRD) scenarios including dams and water harvesting had been modelled for Gregory River Dam, Gunpowder Creek Dam, Nicholson River and Leichardt River (water harvesting). The scenario for a dam on the Nicholson River was deemed prohibitively expensive.</li> <li>The Southern Gulf project modelling showed increasing impacts on banana prawns, barramundi, and sawfish with increasing water extraction, as well as impacts due to water impoundment (dam infrastructure), although these impacts could be reduced with the implementation of mitigation measures. The results were complementary to the MICE modelling of WRD for rivers such as the Mitchell, Flinders and Roper which showed negative impacts on key fishery species due to reduction in wet season river flows. MICE modelling also showed moderation of impacts due to mitigation measures such as end-of-system flow guarantees and river-flow triggers below which water extraction cannot occur.</li> <li>On-the-ground reconnaissance suggested material economic benefits for farmers with access to irrigation infrastructure.</li> </ul>
15	Commonwealth Fisheries Harvest Strategy and Bycatch policy reviews	NPRAG noted that the public comment period for the Commonwealth Fisheries Harvest Strategy Policy and Bycatch Policy Reviews closed in late 2024, with 8 submissions received. These submissions were currently being considered, although this process had recently paused due to the 2025 federal election. NPRAG agreed that further consideration of a MEY target in the fishery was warranted, noting the potential move away from MEY targets in the revised harvest strategy policy.
16	Other business	Collection of scallop data during pre-season surveys  To improve efficiencies of onboard scientists during the surveys, NPRAG advice was sought on whether continued collection of scallop data during pre-season surveys was necessary, considering the data is not currently used. NPRAG agreed the data

		should no longer be collected as it is not currently used, although noted the data collected to date could potential be useful for research in the future.
		<b>Recommendation 6:</b> That the collection of scallop data no longer occurs during NPF pre-season surveys.
		Area of NPF subject to fishing pressure
		Industry members requested that CSIRO re-assess the area of the NPF subject to fishing pressure. CSIRO agreed that it would be useful to do so using grid-cells.
		<b>Action 21:</b> CSIRO to calculate the area of the NPF subject to trawling using grid cells.
17	Next meeting	NPRAG noted that members availability would be sought for the November NPRAG meeting out of session, with the Chair potentially unavailable due to research commitments in the 2 <sup>nd</sup> half of November and Dr Éva Plagányi unavailable from 17-21 November.
		<b>Action 22:</b> AFMA to circulate a poll to seek members availability during November for the next NPRAG meeting.
Clo	se of meeting	The Chair closed the meeting at 3:59pm.

# Attachment A – Adopted agenda

# NPRAG May 2025 meeting

Day 1: Tuesday 20 May 2025 / Time: 1200 - 1730 AEST

Time	Item	Purpose	Presenter		
	Working Lunch to be provided				
1200	1. Preliminaries  a. Acknowledgement of Country  b. Welcome and apologies  c. Declarations of interest  d. Adoption of Agenda  e. Minutes from previous meeting  f. Correspondence	For action	Chair (30 mins)		
1230	2. Actions arising from previous meetings	For information/ discussion	AFMA (10 mins)		
1240	3. Outcomes of out-of-session items	For information	AFMA (5 mins)		
1245	4. Update reports a. Industry update b. AFMA management update c. CSIRO update d. ABARES update	For information	a. Industry members b. Darci c. Eva d. ABARES (1.5 hours)		
1415	Afternoon Tea – 15 minutes				
1430	NPF Stock Assessment     a. Climate and Ecosystem Status Report     b. Tiger Prawn Stock Assessment     c. Redleg Banana Prawn Stock     Assessment	For recommendation	CSIRO (2 hrs)		
1630	6. Banana prawn MEY in-season trigger annual review	For recommendation	CSIRO (30 mins)		
1700	7. 2026/27 Annual Research statement a. Proposed Research Scopes b. Statement Approval	For decision	AFMA (30 mins)		
1730	End of Day 1				

Day 2: Wednesday 21 May 2025 / Time: 830 – 1615 AEST

Time	Item	Purpose	Presenter		
830	8. MSC Conditions Update a. Sawfish Project Update c. Sawfish Work Plan	For discussion	NPFI (1 hr)		
930	9. Data collection in the NPF a. EM update b. FishSOOP update	For information	AFMA (1 hr)		
1030	Morning Tea – 15 minutes				
1045	10. <b>2025 TAE setting</b>	For decision	AFMA (30 mins)		
1115	11. Tiger MICE Project Update	For discussion	CSIRO (45 mins)		
1200	12. <b>ERA update</b> a. Redleg banana prawn ERA b. NPF ERM Response a. ERA/ERM process update	For endorsement/information	AFMA (45 mins)		
1245	<b>245</b> Lunch – 45 minutes				
1330	13. AFMA's Climate Risk Framework	For discussion	AFMA (1 hr)		
1430	Research project update     a. Integrated monitoring program     b. Bycatch Monitoring Project     c. Southern Gulf Water Resource     Assessment update	For information	CSIRO (30 mins)		
1500	1500 Afternoon Tea – 15 minutes				
1515	15. CHS and bycatch policy reviews	For discussion	AFMA (45 mins)		
1600	16. <b>Other business</b> a. NPF Survey – Bycatch recording	For discussion	EO (10 mins)		

1610	17. Next meeting	For decision	EO (5 mins)
1615	End of Day 2		

# Attachment B – Register of interests

Name	RAG/MAC position/ organisation	Declared interests	Relevant agenda item(s) and how they will be managed
Ian Knuckey	Chair	Positions: Director –Fishwell Consulting Pty Ltd Director –Olrac Australia (Electronic logbooks) Chair –Northern Prawn Fishery Resource Assessment Group Chair –Tropical Rock Lobster Resource Assessment Group Chair –Victorian Rock Lobster and Giant Crab Assessment Group Chair –Gulf of St Vincent's Prawn Fishery MAC Research Scientific Committee Chair – Spencer Gulf King Prawn Fishery Economic Sub-committee Scientific Member –Northern Prawn Management Advisory Committee Scientific Member –Gulf of St Vincent's Prawn Fishery Management Advisory Committee Scientific Member –Tropical Tuna Resource Assessment Group Scientific Member – SESSF Resource Assessment Group Member –The Geelong Agri Collective Involved in an EM project for state trawl fishery.	
Rik Buckworth	Scientific Member	Scientific Member – NPRAG Director -Sea Sense Australia Pty Ltd Adjunct Professor – Charles Darwin University Member – Data Working Group for the GABTF Current or anticipated projects with government agencies, CDU and fishing industry for projects in the NT, Torres Strait and Qld	As no formal recommendations were made on research scopes or projects, research members were not required to leave the meeting under agenda item 14.

		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	
Tom Kompas	Economic Member	Economic member – NPRAG  Employed by University of Melbourne. Research provider. Has in the past and may in future seek and receive funding for research in the fishery.	As no formal recommendations were made on research scopes or projects, research members were not required to leave the meeting under agenda item 14.
Éva Plagányi	Scientific Member	Scientific member – NPRAG Employed by the CSIRO and through the organisation has in the past, and may in the future, receive funding for research related to the fishery Research provider involved particularly in stock assessment research in NPF Also currently receiving FRDC funding related to development of a GoC ecosystem model. Scientific member of TRLRAG and TS HCRAG	As no formal recommendations were made on research scopes or projects, research members were not required to leave the meeting under agenda item 14.
Denham Parker	Scientific Member	Scientific member – NPRAG & NORMAC Employed by the CSIRO and through the organisation has in the past, and may in the future, receive funding for research related to the fishery Research provider involved particularly in stock assessment research in NPF	As no formal recommendations were made on research scopes or projects, research members were not required to leave the meeting under agenda item 14.
Phil Robson	Industry Member	Industry member – NPRAG Employee of A Raptis and Sons, responsible for managing NPF vessels & an NT demersal fish trawler. Has provided charter for scientific surveys in NPF in the past and may in future	As agreed at agenda item 1.2, all industry members invited participants and observers, left the meeting prior to the final recommendation on the 2025 tiger prawn TAE under agenda item 10.

Bryan van Wyk	Industry Member	Industry member – NPRAG Employed by Austral Fisheries, a company with SFR holdings in the fishery	As agreed at agenda item 1.2, all industry members invited participants and observers, left the meeting prior to the final recommendation on the 2025 tiger prawn TAE under agenda item 10.
lan Boot	Industry Member	Industry member – NPRAG & NORMAC  Managing Director of Austfish, a company that operates NPF vessels.  Has a commercial interest in the fishery. NPF broodstock permit holder. Participates in scampi fishing	As agreed at agenda item 1.2, all industry members invited participants and observers, left the meeting prior to the final recommendation on the 2025 tiger prawn TAE under agenda item 10.
Darci Wallis	AFMA Member	AFMA member – NPRAG Employed by AFMA, Manager of Northern Prawn Fishery. No interest, pecuniary or otherwise	
Kelvin Montanaro	Executive Officer	Employed by AFMA No interest, pecuniary or otherwise	
Annie Jarrett	NPFI	CEO – NPFI Commonwealth Fisheries Association Director Chair – Australian Council of Prawn Fisheries (ACPF) Member of the FRDC selection panel. Invited participant - NORMAC No pecuniary interests Represents the interests of industry	As agreed at agenda item 1.2, all industry members invited participants and observers, left the meeting prior to the final recommendation on the 2025 tiger prawn TAE under agenda item 10.
lan Butler	ABARES	Employed by ABARES. No pecuniary interests, personal or otherwise in the fishery.	
Richard Cottrell	ABARES	Employed by ABARES. No pecuniary interests, personal or otherwise in the fishery.	

Roy Deng	CSIRO	Employed by the CSIRO and through the organisation has in the past, and may in the future, receive funding for research related to the fishery	As no formal recommendations were made on research scopes or projects, research members were not required to leave the meeting under agenda item 14.
Rob Kenyon	CSIRO	Employed by the CSIRO and through the organisation has in the past, and may in the future, receive funding for research related to the fishery	As no formal recommendations were made on research scopes or projects, research members were not required to leave the meeting under agenda item 14.
Sean Pascoe	CSIRO	Employed by the CSIRO and through the organisation has in the past, and may in the future, receive funding for research related to the fishery	As no formal recommendations were made on research scopes or projects, research members were not required to leave the meeting under agenda item 14.
Steph Brodie	CSIRO	Employed by the CSIRO and through the organisation has in the past, and may in the future, receive funding for research related to the fishery	As no formal recommendations were made on research scopes or projects, research members were not required to leave the meeting under agenda item 14.
Brandon Meteyard	NPFI	Employed by NPFI. No pecuniary interests. Represents the interests of industry	As agreed at agenda item 1.2, all industry members invited participants and observers, left the meeting prior to the final recommendation on the 2025 tiger prawn TAE under agenda item 10.
Natalie Couchman	AFMA	Employed by AFMA No interest, pecuniary or otherwise	
Brodie Macdonald	AFMA	Employed by AFMA No interest, pecuniary or otherwise	

# **Attachment C - Summary of Actions and Recommendations**

Agenda Item	No.	Action	Agency/Person Responsible	Timeframe
2	1	AFMA to discuss with ABARES offline about NPF data quality control and timelines for Fishery Status Report purposes.	AFMA/ABARES	Prior to Nov meeting (update to be provided)
2	2	AFMA, NPFI and CSIRO to discuss offline about NPF data processes and determining what data will become the 'single source of truth'.		Prior to Nov meeting (update to be provided)
2	3	AFMA to provide a flow diagram of all the NPF data processes for the next NPRAG meeting.	AFMA	At Nov meeting
4	4	AFMA to confirm what "percentage of logbook shots observed" refers to in the 2024 NPF Annual Observer Report and whether days would be a more accurate measure.	I A F M A	Prior to Nov meeting (update to be provided)
4	5	AFMA to confirm the process of correcting erroneous reports following subsequent ETP data becoming available.	AFMA	Prior to Nov meeting (update to be provided)
4	6	AFMA to determine where ETP interactions are being reported and how they are being reported.	ΔΕΝΛΔ	Prior to Nov meeting (update to be provided)
4	7	AFMA to organise a presentation on e-observer data collection and data warehouse processes (including QC).	AFMA	At Nov meeting
4	8	CSIRO to provide the climate briefings link to NPRAG members.	AFMA	Following meeting
5	9	AFMA Climate Team/Steph Brodie to retrospectively look at BoM reporting to see whether there were any indications that 2025 would be an anomalous year.	AFMA/CSIRO	Prior to Nov meeting (update to be provided)
5	10	Dr Tom Kompas to provide a presentation on his Artificial Intelligence (AI) fuel price model at the next NPRAG meeting.	Tom Kompas	At Nov meeting

5	11	Dr Tom Kompas to provide clarification on the impacts of fleet adjustment and extrapolation and explain why fuel price changes have minimal impacts on modelled results.	Tom Kompas	At Nov meeting
5	12	CSIRO to provide presentations for distribution to the RAG.	CSIRO	Following meeting
7	13	AFMA to undertake a desktop-study scoping exercise as a first step to broader coordination between jurisdictions on AI projects.	AFMA	Prior to Nov meeting (update to be provided)  Note: Resource dependant
7	14	AFMA to report back to NPRAG on contemporary EM and AI discussions occurring between jurisdictions and any coordination work that is taking place.	AFMA	At Nov meeting
7	15	AFMA should seek to advance a broader AI project encompassing multiple fisheries in collaboration with FRDC.	AFMA	Prior to Nov meeting (update to be provided)  Note: Resource dependant
8	16	NPFI and CSIRO to discuss potential low-cost options to encourage continued industry participation in the Sawfish research.	NPFI/ CSIRO	Prior to Nov meeting (update to be provided)
9	17	NPRAG Chair Dr Ian Knuckey, with input from Scientific Members Dr Eva Plaganyi and Dr Denham Parker to write to AFMA putting forward NPRAG's concerns and dissatisfaction with chosen process to implement EM in the NPF without the RAG having seen either the final report of the cost-benefit analysis or being able to provide further input.	Ian Knuckey/ Eva Plaganyi/ Denham Parker	Following meeting
9	18	Dr Ian Knuckey (as co-investigator in the FishSOOP project) to provide an out-of-session update on the FishSOOP project to support the Climate and Ecosystem Status Report and provide an update at the next NPRAG meeting.	lan Knuckey	Prior to Nov meeting (update to be provided)
13	19	That further clarity is provided by AFMA on the future resourcing and funding for the CRF (if approved by the AFMA Commission).	AFMA	At Nov meeting

14	20	CSIRO to present additional details on the biological elements of the tiger prawn stock assessment model, including the key components influencing the model outputs, at the May 2026 NPRAG meeting.	CSIRO	At May 2025 meeting
16	21	CSIRO to calculate the area of the NPF subject to trawling using grid cells.	CSIRO	Prior to Nov meeting (update to be provided)
17		AFMA to circulate a poll to seek members availability during November for the next NPRAG meeting.	AFMA	July/August
Agenda Item	No.	Recommendation	Agency/Person Responsible	
7	1	<ul> <li>NPRAG ENDORSED the Northern Prawn Fishery Annual Research Statement 2026/27, noting the following agreed changes:</li> <li>a) That the Further investigation of the use of artificial intelligence (AI) in the NPF is removed from the future NPF research priorities and included in future projects for external funding.</li> <li>b) AFMA to add a short paragraph scoping out the research priority economic sensitivity modelling to analyse the impacts of fleet heterogeneity on bioeconomic modelling.</li> <li>c) Remove Developing assessment methods and harvest strategy for by-product species in the NPF and Scampi identification project from Research projects identified for inclusion in future research statements.</li> <li>d) AFMA to insert a paragraph on page 2 of the NPF Annual Research Statement 2026/27 explaining that the current economic condition of the NPF limits the prioritisation of research for the fishery. AFMA should distribute the paragraph for comment before the Annual Research Statement goes to NORMAC in July.</li> </ul>		AFMA
10	2	NPRAG accepted the outcomes of the revised 2025 base case, recommending a TAE of 4,014 effort days for tiger prawns in the 2025 fishing season.		AFMA
10	3	Noting an assessment wasn't undertaken in 2025, NPRAG supported using the 2024 redleg banana proutputs as the basis of the TAE recommendation, recommending a TAE of 412 boat days for the JBG.	AFMA	
12	4	NPRAG <b>ENDORSED</b> the final redleg banana prawn ERA report and NPF ERM response.	AFMA	

13		That the CRF Species Assessment Reports <u>are not</u> published publicly until further results of the Tiger MICE project are available.	AFMA	
16	6	That the collection of scallop data no longer occurs during NPF pre-season surveys.	AFMA/CSIRO	