

Minutes

Line & Trap Harvest Strategy Working Group meeting 9

Details

Location: Mascot NSW 2020

Date: 14–15 August 2025

Chairperson: Ian Cartwright

Attendees

1. Tony Smith, Independent Scientist
2. Sevaly Sen, Independent Economist
3. Brad Gibson, Recreational Fishing Member
4. Ian Puckeridge, Recreational Fishing Member
5. James Norris, Recreational Fishing Member
6. Daniel Stewart, Commercial Fishing Member
7. Mitchell Sanders, Commercial Fishing Member
8. Stephen McGuire, Commercial Fishing Member

9. John Stewart, DPIRD Fisheries Scientist Member
10. Darren Hale, DPIRD Fisheries Manager Member
11. Nicholas Giles, DPIRD Fisheries Harvest Strategy Manager Member
12. Aaron Puckeridge, Executive Officer
13. Ashley Fowler, DPIRD Invited Participant
14. Rowan Chick, DPIRD Invited Participant
15. Philip Bolton, DPIRD Invited Participant
16. Chad Lunow, QLD DAF Observer
17. Fay Helidoniotis, DPIRD Invited Participant
18. Geoffrey Liggins, DPIRD Invited Participant

Apologies

Chad Lunow
Brad Gibson (day one)
Ian Puckeridge (day 2)
James Norris (day 2)

This Meeting:

No.	Issue	Action
1	Acknowledgement of country	The Chair opened the meeting with an Acknowledgment of Country, paying respect to the traditional owners of the land on which the Line & Trap Harvest Strategy Working Group (the Working Group) was meeting, and paying respect to Elders past and present.
2	Introduction and action items	The Chair introduced the meeting's discussions with a summary of the Working Group's progress to date: • The Working Group is nearing the end of its discussions to support completing consultation drafts of the harvest strategies. • The Chair noted there were aspirations to make this the final meeting before referring the proposed draft strategies to the <u>Commercial Fishing NSW Advisory Council</u> (CommFish)

and the Recreational Fishing NSW Advisory Council (RFNSW), however some details of the harvest strategies need further discussion, and another meeting is likely required.

- Additionally, DPIRD intends to have its stock assessments peer reviewed, which will provide further testing of the assessments and methodology.

The Executive Officer updated the Working Group on the progress of the ongoing action items:

4.1 During the Working Group's lifespan (before 12 February 2026), the Working Group is to create a document to brief the DPIRD executive on fishery level management options for the broader Line & Trap fishery.

DPIRD is currently developing an assessment to determine options to structure the various harvest strategies needed across NSW fisheries and sectors, including how best to group and categorise various species and fisheries for future harvest strategy development. This work is developing, and DPIRD will soon provide advice from the independent experts and other members on its progress.

6.6 DPIRD to prepare an explanatory document which will accompany the draft harvest strategies when they are released for publication.

Completed in principle – DPIRD distributed a draft in the meeting 8 briefing package. The Working Group provided advice, which has been incorporated into a revised version distributed in the meeting 9 briefing package. This will be updated with minor amendments as the harvest strategies are finalised.

8.1 DPIRD to re-run the Yellowtail Kingfish assessment model using only catch, length and age data (excluding effort data), to assess the effect of effort and CPUE on biomass estimates.

Completed – DPIRD has made substantial progress on the Yellowtail Kingfish (*Seriola lalandi*) stock assessment model, and has completed analyses around the effects of effort and Catch Per Unit Effort (CPUE) on biomass estimates. This was further discussed in Agenda item 4.

8.2 DPIRD to draft daily catch limits for non-OTLF fisheries to be included in the next draft of the NSW Snapper and Yellowtail Kingfish harvest strategies, which will be considered at meeting 9.

Completed - A paper was included in the meeting 9 briefing package and the proposed daily catch limits are included in the current versions of the harvest strategies. These were further discussed in Agenda item 7.

8.3 DPIRD to update the Working Group on any reporting developments following consultation on the draft NSW Mulloway Harvest Strategy.

DPIRD noted that the consultation period for Mulloway (*Argyrosomus japonicus*) had been extended by 2 months, closing on 31 July 2025 (2 weeks prior to this Working Group meeting), so responses were still being analysed. DPIRD provided some general observations based on initial understanding of feedback on the draft NSW Mulloway Harvest Strategy.

8.4 DPIRD to provide further analysis of Yellowtail Kingfish management options for meeting 9.

DPIRD has further developed the NSW Yellowtail Kingfish stock assessment, including biomass projections under various scenarios. The assessments and management options were discussed under later agenda items.

3 Snapper stock assessment update

DPIRD provided an update on the NSW Snapper (*Chrysophrys auratus*) stock assessment:

- Noting an extensive stock assessment presentation was given in meeting 7, this update focussed on new work.

New work

- The stock assessment model has been updated to include estimated catches from 2023 and 2024.
- Additional stock biomass projections have been completed, to provide estimates of the time it would take to reach the various biomass targets in the Snapper harvest strategy.
- If catches stay at the current level, and recruitment remains at the current below average level, the model estimates that biomass will continue building and will reach B_{30} by 2032.
- Biomass is still expected to grow under higher catch scenarios, albeit very slowly and with higher risk of biomass not building to a more productive level within reasonable timeframes.

Discussion

The Working Group discussed trends in recruitment:

- As discussed in previous meetings, recruitment has been below average over the last 10 years.

- When viewing the whole timeseries of recruitment, there is an ongoing downward trend, which could feasibly continue.
- If recruitment continues to decline, the stock may become less productive, and management may need to be more precautionary.
- This is a whole of NSW stock assessment and anecdotal evidence suggests that recruitment is declining the most in northern NSW and potentially strengthening in southern NSW.

The Working Group discussed catch rate hyperstability, and its potential effects on stock assessment models:

- Recent analysis of fishery independent survey data indicates that the CPUE of many fisheries is hyper-stable. Even if hyperstability is not generally considered to be associated with a species (i.e. it is most associated with aggregating or easily located species), the ability of fishers to continue finding fish and/or improve catch efficiency can result in hyperstable CPUE trends, masking potential stock declines.
- Commercial fishers noted that trap CPUE would likely be difficult to analyse, as subtle differences in trap placement can be used to target different species, with key targets being Snapper, Ocean Leatherjackets (*Nelusetta ayraud*) and Yellowfin Bream (*Acanthopagrus australis*), with resulting variations in catch rates. These species can also overlap in a single trap.
- These are typical CPUE discussions in any fishery but are good to keep in mind when assessing stocks.
- While the Snapper assessment does incorporate CPUE data, it is also calibrated by the size and age distributions of fish collected from commercial and recreational sampling programs.

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| 4 | Yellowtail Kingfish assessment update | <p>DPIRD provided an update on the NSW Yellowtail Kingfish assessment, noting it had progressed considerably since meeting 8. The update commenced with a discussion of the selectivity function currently being used in the assessment model:</p> <ul style="list-style-type: none"> • As discussed in meeting 8, the selectivity function is highly influential on the biomass estimate produced by the stock assessment. • Previously 2 selectivity functions (logistic and dome shaped (and variations of the dome shaped selectivity function)) were discussed (see meeting 8 minutes for details) and the Working |
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Group noted that the dome shaped selectivity seemed consistent with their understanding of the stock, however logistic selectivity produced a biomass estimate more consistent with some stakeholders' views of the Kingfish stock.

- There are 2 factors which add uncertainty to the selectivity function discussion:
 - Movements of Kingfish, and whether certain size classes spend more time isolated from fishing pressure (e.g. on offshore grounds)
 - Fishing behaviour, and whether certain size classes are more or less susceptible to various methods.
- Since meeting 8, DPIRD has reviewed satellite tagging data from Project Kingfish, tagging data from the NSW Gamefish Tagging Program and catch and observer data from Commonwealth managed boats fishing on the high seas.
- These data sources indicate that Kingfish of all legal sizes have the potential to travel large distances, and transit inshore and offshore, using all habitat types.
- Additionally, large tagged Kingfish have a higher recapture rate than small tagged Kingfish, indicating that in the recreational fishery large individuals may be more susceptible to targeting or capture.
- As discussed at previous meetings, commercial catches are dominated by smaller fish near the size limit.
- Noting that adjustments to the Kingfish model are still being investigated, DPIRD may seek to explore different selectivity functions for the various “fleets” in the NSW Kingfish fishery.

The Working Group discussed the model outputs from the current iteration of the NSW Yellowtail Kingfish assessment:

- The current Kingfish assessment model uses a logistic selectivity function, which assumes that all fish above the minimum legal length of 65 cm have an equal exposure to fishing pressure and likelihood of being harvested.
- The current assessment outputs are considered precautionary, and additional work needs to be completed before a more accurate estimate of stock status can be concluded. However, the preliminary assessment model presented indicates that biomass is at a low level and has been consistently low for a number of years.

- The model has been used to forecast biomass growth under a range of catch scenarios.
- The model indicates that the Kingfish stock is expected to be highly productive and increase (albeit slowly) under current and increased catch levels. Despite this assumption, biomass has remained low at roughly consistent catch levels for several years. This suggests that to allow the Kingfish stock to reach a more productive state at a higher biomass level, lower catches are likely to be required.
- The biomass projections indicate that by reducing catch, the Kingfish stock can build at a faster rate.

The Working Group discussed the next steps to further develop, and finalise the assessments:

- Noting the influence of the selectivity parameters, DPIRD is seeking external scientific advice on the Kingfish assessment.
- Once finalised, both the Snapper and Yellowtail Kingfish assessments will be independently reviewed, to ensure they are as robust and defensible as possible.

Discussion

The Working Group discussed the updates to the Kingfish assessment, and ongoing work to finalise it:

- The Working Group noted that the decision to progress the assessment to an integrated assessment model for Kingfish was made between meeting 7 and meeting 8. This development work will support robust decision making under the harvest strategy.
- The 2025 Queensland Spanish Mackerel (*Scomberomorus commerson*) assessment applied dome shaped selectivity for most fleets in the commercial sector, and logistic selectivity for the recreational fishery sector and one commercial fleet. Different selectivity functions for different NSW fishing fleets may also be suitable in the Kingfish model.
- Hyperstability could also be further explored as a condition in the model.

The Working Group discussed Kingfish biomass trends:

- The Working Group noted the volume of Kingfish harvested has reduced significantly over time. Given the catch reductions, some may have expected the stock to rebound more strongly, as stock productivity is understood to be high. However, when biomass is at a low level, recruitment and productivity is also

low. The sustained low level of catches in recent years may be maintaining the Kingfish stock at a low equilibrium level.

- It was also noted that targeting practices have changed, and Kingfish have become increasingly popular amongst recreational fishers and the seafood industry.

The Working Group discussed the risk associated with uncertainty in the Kingfish assessment model:

- The more pessimistic results of the assessment warrant catch reductions, which will have effects on stakeholders.
- Hyperstability can be a risk for species with behaviour like Kingfish, and if not included in the assessment model, may result in biomass being over estimated.
- DPIRD and the Working Group need to consider both the risk associated with overly restrictive management impacting stakeholders, and risk to the sustainability of the Kingfish stock.

5 Interim management options

The Working Group noted that the long-term management approach could take time to implement. In the interim, the harvest strategies will need mechanisms to control catches.

Commercial sector

DPIRD provided updates on the discussion on commercial interim catch limits since meeting 8:

- It is understood that longer term (monthly) catch limits are the preferred interim management option as against shorter term (including daily) catch limits.
- Implementing monthly catch limits should be supported by real-time reporting, which has budget, systems and regulation challenges.
- DPIRD suggested revisiting discussions around alternative options, including daily or annual catch limits.

The Working Group discussed the new information provided by DPIRD:

- As previously discussed, daily catch limits will limit commercial fishers' ability to plan their operations within a month and capitalise on weather windows or fish availability (promoting economically viable fishing).
- Similarly, an annual total catch limit (i.e. TAC without individual allocations) could result in a 'race to fish' and creating regional

inequality if a pulse of fish is available in one part of the state first.

- The Working Group maintained monthly catch limits as their preferred interim management measure (with or without real-time reporting), noting that DPIRD would need to further consider feasibility and capacity to implement.

Recreational sector

The Working Group discussed the form of the interim management arrangements for the recreational sector:

- Regardless of whether catch reductions are needed, the bag limits need to be adjusted to become an effective catch control (noting most recreational fishers rarely catch 5 Kingfish or 10 Snapper in a day).
- Bag limit changes are unlikely to be controversial for many recreational fishers, however the equivalency of changes between the sectors is likely to be closely scrutinised.
- As previously discussed, recent changes to the commercial sector (including the Business Adjustment Program (BAP)) have reduced commercial fishing effort. This is important context to future recreational management changes, and equitable cross-sectoral management.

6 Harvest strategy review

The Working Group revised the current harvest strategy drafts and provided advice on components which needed updates, commencing with a discussion of the harvest control rules used in the harvest strategies:

- At present, the draft Snapper harvest strategy prescribes a transition to a hockey stick harvest control rule, while the Kingfish harvest strategy maintains a simpler mechanism to set catches, using modelled catch projections to reach target levels.
- Noting the considerable developments with the Kingfish stock assessment model, the Kingfish harvest strategy is likely suitable to have the same harvest control rule as the Snapper harvest strategy.
- If hockey stick harvest control rules are transitioned to in the future, the transition point could be when the RBC from the hockey stick is equal to or greater than the existing RBC, so there is minimal shock from the change.

The Working Group discussed how the harvest strategies should respond if a sector exceeds its catch share, noting each sector has

a predefined share of the total RBC. If a sector breaches their share, the intent is for management controls to bring catches back within that share:

- For each sector there are challenges with monitoring catches as they track against catch limits, with recreational surveys occurring biennially, and commercial logbook data being submitted monthly.
- Noting this, the catch controls will aim to control catches to the level of the catch limits, although catches slightly above or below will likely be acceptable, noting that catch management must still maintain its integrity and ensure sustainable catches and catch shares.
- Therefore, threshold conditions where a catch limit is considered breached will need to be defined. This could be a set percentage over the sector catch share, or other criteria, and will need to be considered by DPIRD.
- This will allow some stability in the management response, resulting in less changes and potential confusion for stakeholders.
- If catches are clearly going to exceed an annual limit, the option to initiate a closure may be required.
- The first year of implementing new management under the harvest strategies will be the most challenging, as it is difficult to definitively model the exact effect new management will have on catches.

The Working Group discussed the various biomass goals that exist in the current draft of the harvest strategy:

- At present both harvest strategies contain a rebuilding trigger reference point (B_{25}) and a building target (B_{30}). These 2 terms could be confusing for stakeholders, and DPIRD may seek to simplify these in the harvest strategies.
- The purpose of the rebuilding trigger reference Point (B_{25}) is to trigger a review when biomass is declining from a higher level.
- In contrast, the intent of the building target (B_{30}) is a milestone when building upwards from a low level and potentially changes the management approach when it is reached.
- The interim biomass target of B_{30} could be maintained, with the term “building target” removed for simplicity.

7 Managing commercial

In meeting 8, the Working Group requested that DPIRD provide information on potential methods to manage Snapper and Kingfish

catches in non-target fisheries

catches in non-target commercial fisheries (Action item 8.2). DPIRD provided the Working Group with the following information:

- Daily catch limits could be used to manage catches of Snapper and Kingfish in non-target (or non-quota) commercial fisheries, consistent with past management approaches.
- The goal of this management would be to:
 - Support integrity of any future management arrangements applying to the Ocean Trap and Line Fishery (OTLF)
 - Acknowledge catches or reliance on Snapper or Kingfish in other fisheries
 - Ensure sustainability of the Snapper and Kingfish resources.
- The limits presented to the Working Group were developed based on the following principles:
 - Prohibit catch in sectors where there has been nil or negligible reported catch of the species
 - Introduce a daily limit for sectors that have reported taking the species in reasonable quantities on a reasonable frequency, with the limit determined so that catches are not impacted on most catch events.

Discussion

The Working Group made the following comments:

- Generally, the proposed catch limits look sensible and will support future management arrangements in the OTLF.
- Fisheries which sporadically catch Snapper or Kingfish are unlikely to drive sustainability risks, and these species can provide income boosts when they are encountered. DPIRD should consider this when finalising the management arrangements.
- Despite this, it is important to consider the number of fisheries which can harvest Snapper or Kingfish if robust management for these species is only in place in the OTLF, allowing for continued access to the stock and supporting a wholistic stock management approach.
- Final arrangements must balance these factors.

8 Updated data, and the influence on harvest strategy catch shares

The Working Group noted that the harvest strategies currently define catch shares based on recreational and commercial catch data from 2013/14–2022/23 (financial years). However, the most recent recreational survey was completed in 2023/24, and catch

estimates from this will be available in late 2025. Similarly, updated commercial logbook data is available from this period.

The Working Group considered how the new estimates will be included in the harvest strategies:

- New data will continuously become available in the future, but the agreed catch shares should remain in the harvest strategies. With the following reasons being raised:
 - The current catch shares (50:50 for Kingfish and 55:45, commercial:recreational for Snapper) were defined in early Working Group meetings (see [meeting 6 minutes](#)) and have been the basis of much of the discussion to date
 - Discussions in the Working Group have the potential to have affected reporting patterns in commercial logbooks or recreational surveys
 - Using the average catch values over the agreed years (2013/14–2022/23) accounts for catch variability and some uncertainty in estimates
 - Management under the harvest strategies is aiming to maintain these historical catch shares of Kingfish and Snapper.
- Any future changes to the defined catch share should only be negotiated or determined in accordance with the NSW fisheries resource sharing policy.

9 Other business, and steps to finalise the harvest strategies

The Working Group discussed the process for finalising the draft harvest strategies:

- Work is still underway to finalise details in the Yellowtail Kingfish stock assessment.
- DPIRD intends to have both the Snapper and Kingfish stock assessments independently reviewed prior to the harvest strategies being released for public consultation.
- Noting that the Working Group has provided substantial advice on various harvest strategy components throughout this meeting, it would be useful to hold another meeting so that the Working Group can be presented the final harvest strategies before providing any closing advice.
- Final updates also need to be reflected in the harvest strategy background documents, which are planned to accompany the draft strategies when they are released for public consultation.

- Noting that peer review of the stock assessments could take time, DPIRD will need to consider the date for the tenth Working Group meeting based on the progression on the independent stock assessment reviews. The Working Group will need to be briefed on all final information, prior to commencing the consultation process.

Next meeting:

Following further discussion on the timing of the independent stock assessment reviews by DPIRD, the tenth Working Group meeting was scheduled for early 2026.
