Consultation report: East coast Spanish mackerel proposed management and harvest strategy changes

DELIVERING FOR QUEENSLAND | Queensland Government

This publication has been compiled by Fisheries Queensland.

The Department of Agriculture and Fisheries proudly acknowledges all First Nations peoples (Aboriginal peoples and Torres Strait Islanders) and the Traditional Owners and Custodians of the country on which we live and work. We acknowledge their continuing connection to land, waters and culture and commit to ongoing reconciliation. We pay our respect to their Elders past, present and emerging.

Contents

Summary

Public consultation on proposed changes to the east coast Spanish mackerel fishery management and harvest strategy amendments was conducted between 10 September 2025 and 8 October 2025. This was done through the release of the *East coast Spanish mackerel fishery harvest strategy and management changes discussion paper*.

Feedback was sought on 5 proposed options for the fishery, the seasonal closures and any additional feedback:

1. **Amending harvest strategy objective** – Most respondents supported the proposal to adjust the objectives of the harvest strategy. Comments from those who opposed the amendment suggested the primary objective should be more focused on maximising fish populations or environmental sustainability. Some respondents suggested waiting for additional information or additional time for recovery (2 – 5 years) before making management changes.

2. **Shifting the target biomass from 60% to 48% –** Most respondents agreed with reducing the target biomass (B_{TARG}) from 60% to 48% (Figure 4). Those that supported the proposal suggested Spanish mackerel are prolific and sustainable species and that the B_{MEY} target of 48% target aligns with other jurisdictional approaches while allowing increased harvest, improved economic return and increased availability of local fish. The majority of written comments received opposed the proposal and noted a reliance on healthy fish stocks for long-term sustainability and that reducing the target risks further stock decline, harms small businesses, and benefits short-term interests over future recovery. Some respondents indicated that leaving more fish in the water will improve experiences for charter and recreational users and buffers against poor recruitment years which may occur with more frequency in a changing climate.

3. **Removal of the interim rebuilding target limit, B_{40} -** Most respondents agreed with the proposal. Concerns were raised that with the biomass already low, removing B_{40} weakens accountability and risks long-term sustainability with respondents emphasising the need for stronger recovery measures to protect the fishery, associated industries, and future access for recreational fishers. Supportive comments noted that removing the interim rebuilding reference point would ensure that Spanish mackerel would be available and consumers would not have to purchase imported product.

4. **Increasing the TACC to 250 t** – Responses were split on the proposal to increase the total allowable commercial catch (TACC) to 250 t. Many respondents acknowledged the importance of commercial fishing for local communities and markets but stressed the need for sustainable fishing limits. A significant portion of opposing respondents cited concerns about stock depletion, shark predation, and the need for more time to rebuild biomass. Several respondents suggested smaller, incremental increases (e.g., 30% increase, or 200 t) to allow for monitoring and adaptive management. Support for the proposal came in the form of acknowledging the economic and community benefits, conditional support and those requesting even higher TACCs. Many respondents believed the increase could help stabilise lease prices, reduce reliance on imports, and improve the profitability of commercial fishing. However, support was often contingent on ensuring the increase aligns with sustainable stock management, is backed by credible science, and includes strict monitoring and review mechanisms. Some feedback highlighted that security of access to the stock may be limited through the current individual transferable quota framework, and that an increase in quota should be directed to those directly utilising the stock.

5. **Increasing the recreational boat limit** – Respondents were split on this topic; however comments indicated a percentage of those replying 'No' to the proposal actually wanted more access for recreational fishers, not the same or less access. If these were considered as positive toward providing greater access, there was 83% support for this proposal. While the 4 per boat limit was well supported, comments indicated frustration regarding a possession limit of 1 per person, particularly for people fishing alone or with less than 4 fishers per boat.

6. **Maintaining the seasonal closure for spawning (north) and migration (south)** - Survey respondents generally supported the seasonal closures citing the effectiveness of closures in rebuilding stocks and to ensure sustainability. Some called for a review of the closure once the stock has rebuilt. Many respondents misunderstood the intent of the southern closure, which is not a spawning closure but designed to protect migrating schools of fish and reduce fishing effort to provide an equal level of protection in the north and the south.

7. **Additional feedback**: Many additional comments were received and are outlined in Table 2. Several comprehensive submissions argued for additional considerations including modelling (forward projections) of the stock assessment under the proposals including impacts of the proposed harvest on population recovery, as well as modelling the return to the catch share allocation within the harvest strategy. One highlighted the additional expectations on fisheries management in the Great Barrier Reef World Heritage Area. Several suggested more cautionary approaches moving forward. Some commercial fishers wanted greater access to the fishery and many recreational fishers wanted to see the in-possession limit increased to 2 per person. There were calls for additional or mandatory recreational catch and effort reporting, minimising or mitigating the impacts of depredation and an independent review of the seasonal closures for the stock. The need for precautionary management to rebuild stocks under existing uncertainty, and environmental change was highlighted.

Background

There have been long-held concerns about the sustainability of the east coast Spanish mackerel fishery, including:

- the serial targeting of spawning aggregations
- increasing effort applied along the whole coast
- the impacts of hyperstability (i.e. when catch rates remain stable, or even increase, despite a genuine decline in the fish population's abundance) of stocks on catch rate analysis and stock assessments due to aggregating behaviour.

With a rapidly changing ecosystem and difficulty understanding its influence on fish populations, new concerns have been raised relating to reduced recruitment success, an observed increase in depredation rates, and post-release mortality of released fish.

In 2021, the east coast Spanish mackerel stock assessment estimated the stock was most likely at 17% (14% – 27% range) of unfished biomass. Following this stock assessment, 2 independent reviews identified additional work was required to better understand uncertainty and improve confidence in future results.

The Department acknowledged this uncertainty and the best available information and following consultation with stakeholders, implemented management changes in September 2022 to facilitate recovery of the stock. To reduce future uncertainty, significant research investment was also initiated.

The management changes at that time included:

- closures to protect the spawning stock (northern closure) and reduce fishing pressure (southern closure) on aggregations
- a reduction in the total allowable catch (TAC) for both commercial and recreational sectors through
    - reducing the TACC from 578 t to 165 t
    - reducing the possession limit from 3 fish to 1 fish for recreational fishers
    - removing the extended trip limit for the charter sector that allowed a recreational fisher to possess double the possession limit if a trip was over 48 hours.

From 1 July 2023, the *East coast Spanish mackerel harvest strategy 2023–2028* was implemented, which identified fishery rebuilding objectives. As a result of consultation and advice received during this process, catch shares between commercial and recreational sectors were set at 60% for commercial and 40% for recreational (based on historical catch levels). The harvest strategy guides sustainable harvest management arrangements.

The Department worked cooperatively with the Fisheries Research and Development Corporation to undertake research focusing on Spanish mackerel movement patterns, shark depredation and post-release mortality rates for the commercial and recreational sectors. Research identified shark depredation of this species impacted the 2 sectors differently, with research demonstrating impacts to around 6% of commercial catch, while recreational harvest was impacted by 37%.

Considering this information and the impact of post-release mortality in the recreational fishery, the 2025 stock assessment estimated that the commercial sector’s impact on stocks in 2024 was approximately 147 t (36%), while the recreational sector’s total impact was estimated around 261 t (64%).

The 2025 stock assessment included significant collaboration with a stock assessment project team (commercial and recreational fishers, an independent scientific expert, and Fisheries Queensland). It incorporated all recommendations from the 2 independent reviews of the previous assessment, updated catch and biological information, and the results of the new research. It also addressed the uncertainty around steepness (i.e. a crucial parameter that quantifies a fish stock's resilience by indicating the expected recruitment when the spawning biomass is low), hyperstability in catch rates, and the migration patterns of Spanish mackerel to reduce past uncertainty.

The 2025 stock assessment estimated that the east coast Spanish mackerel stock was at 34% of unfished levels (17% to 62% range). The assessment also highlighted the importance of recruitment in driving population, as can be observed in the biomass increase between 2004 and 2015. However, in the absence of a strong recruitment event, biomass had declined from 2015 until 2023.

As a result of the introduction of historical management measures in response to past stock assessments, the current risk profile for the fishery has improved in recent years.

Consultation process

A discussion paper and online survey were released on 10 September 2025, with the public consultation running over a 28 day period until 8 October 2025*:*

- East coast Spanish mackerel fishery working group members were notified directly via email
- Quota owners and commercial fishers with an SM endorsement were notified directly via email
- Fisheries Queensland held an online information session with the East coast Spanish mackerel fishery working group 23 September 2025.
- Fisheries Queensland officials met with the Queensland Seafood Industry Association representatives.
- Recreational fishing groups were notified by email where contacts were available, and
- Broader stakeholders were notified via social media and the Fisheries Queensland website.

Survey questions were primarily presented with option to support the proposal or not, and an opportunity to comment and suggest practical alternatives and viewpoints. There was also an opportunity provided at the end of the survey to add additional comments and feedback.

No decisions have been made at this point in time.

Visit fisheries.qld.gov.au to find out more about the:
> *Queensland Prosper 2050 and Fishing and Seafood Action Plan*
> East coast Spanish mackerel fishery working group
> Best practice fishing techniques to minimise depredation and maximise fish survival.

Consultation results and analysis

Respondents

In total, 470 submissions were received, of which 422 were responses to the discussion paper survey and 47 were written submissions. The majority of respondents identified as recreational fishers (79.8%), with submissions also received from commercial fishers (11.7%), charter fishing operators (3.4%), interested community members (7.9%), seafood wholesales/marketers (1.1%), hospitality workers/owners (1.1%), fishing tackle retailers (1.9%), Traditional Owners/fishers (1.9%), conservation (1.7%) and industry peak body (1.3%) (Table 1, Figure 1). Some respondents had multiple interests in the fishery and identified themselves as aligning with more than one stakeholder group. Some respondents did not align themselves with a stakeholder group (8.7%).

Table 1: Breakdown of survey respondents

Stakeholder group	Number of respondents	Percentage of respondents
Recreational fisher	375	79.8%
Commercial fisher	55	11.7%
No affiliation nominated	41	8.7%
Interested community member	37	7.9%
Charter fishing operator	16	3.4%
Other	14	3.0%
Tackle retailer	9	1.9%
Traditional fisher / Traditional Owner	9	1.9%
Conservation	8	1.7%
Peak bodies	6	1.3%
Hospitality (restaurant, café, fish and chip) owner/worker	5	1.1%
Seafood wholesaler/marketer	5	1.1%

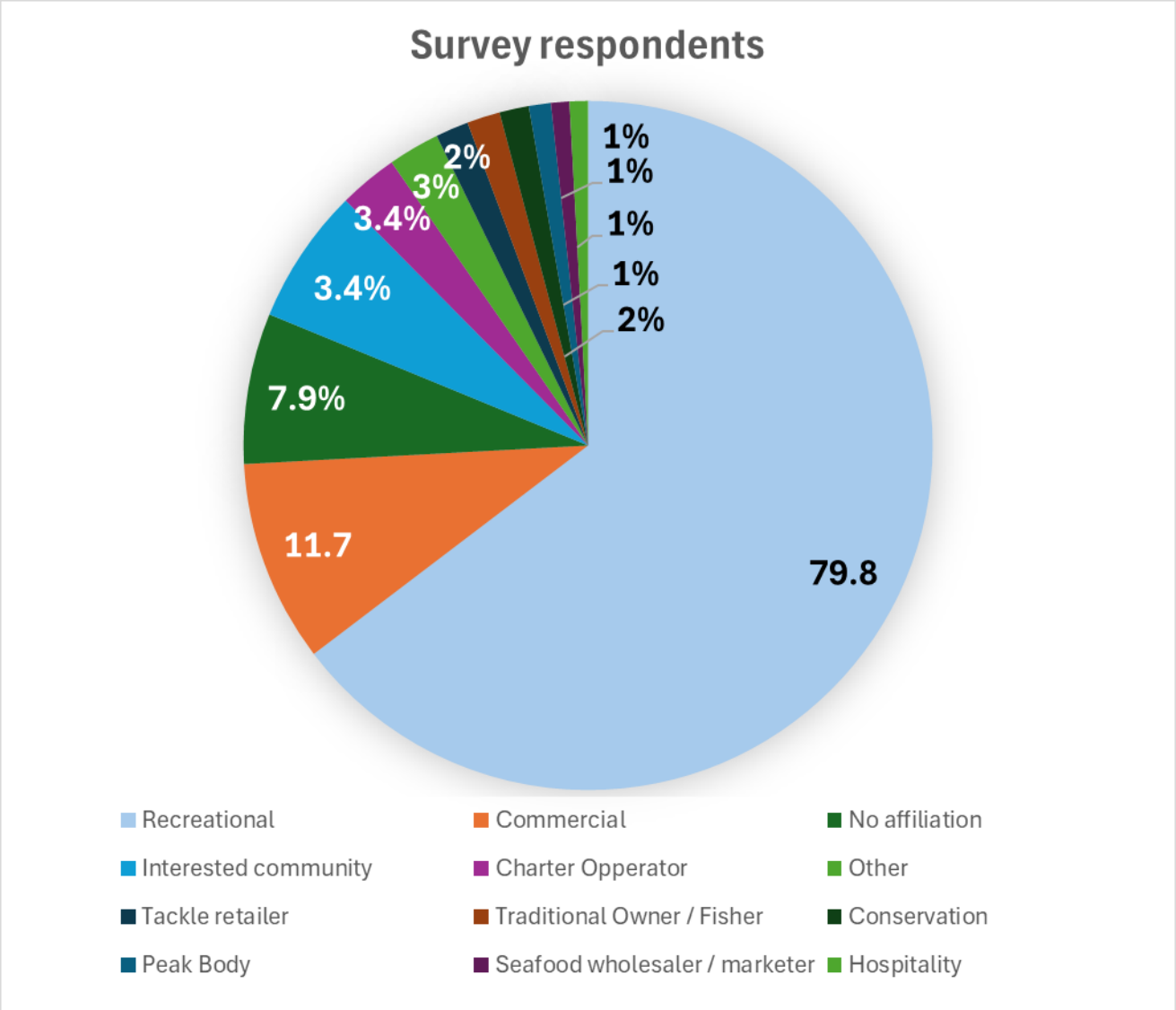
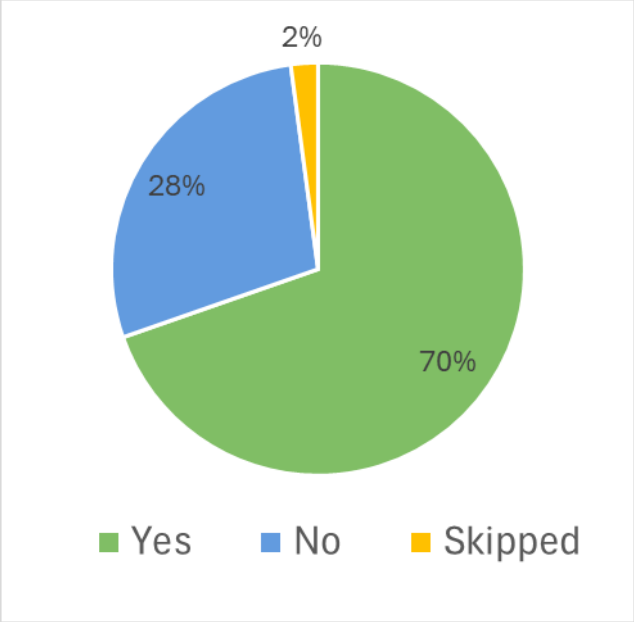


Figure 1: Breakdown of survey respondents by stakeholder group

Proposal 1: Do you agree with the proposal to change the harvest strategy primary objective to *'Continue to rebuild the east coast Spanish mackerel stock to the target spawning biomass level that aims to maximise economic yield (B_{MEY}) for the fishery*'?



Overall, there was strong support for the proposal (70%) to change the harvest strategy objective (Figure 2).

There were limited differences in the levels of support for the change depending on the stakeholder group (Figure 3) with most showing a majority from half to two-thirds support. The strongest levels of support came from the commercial sector (84%) and the recreational sector (69%). While still having majority support, the least support came from charter fishing operators (53%).

Figure 2: Overall support or opposition to the proposal to change the harvest strategy objective.

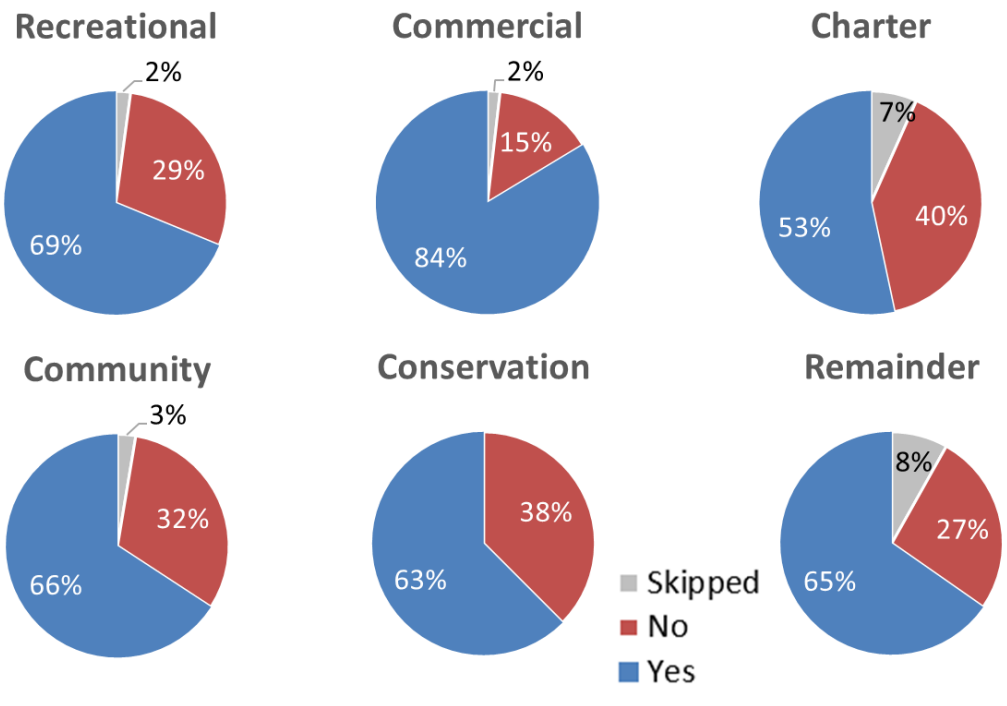


Figure 3: Sector responses to proposal 1 – *Do you agree with the proposal to change the harvest strategy primary objective to 'Continue to rebuild the east coast Spanish mackerel stock to the target spawning biomass level that aims to maximise economic yield (B_{MEY}) for the fishery'?*

While most respondents supported the proposal (Figure 2) to adjust the objectives of the harvest strategy, 19 of the 33 comments received relating to the proposal did not support it. For example:

- *Preferred aim is environmental and biodiversity sustainability, not economic sustainability (recreational sector response)*
- *Maximum economic yield is not a sensible nor sustainable management strategy, as no ecosystem exists in isolation (recreational sector response)*
- *Continue to rebuild the east coast Spanish mackerel stock to the target spawning biomass level that aims to maximise fish population stability. The focus should not be economical, it needs to be ecological (Traditional Owner / fisher sector response).*

Stakeholders opposing the proposal provided a number of reasons including concern that maximum economic yield is not a sensible nor sustainable management target or that economic targets unfairly advantage commercial fishers. Others sought additional evidence that the stock is recovering, and to maintain current management arrangements until this evidence is collated. Others suggesting waiting 2 to 5 years before making changes.

Stakeholders who provided comments supporting the proposal included that:

- *…changing the objective to focus on rebuilding to B_{MEY} promotes a healthier stock, supports better fishing experiences, and delivers stronger long-term economic returns across all sectors, including charter, recreational, and tackle industries. Aiming for B_{MEY} shows commitment to sustainability, shared value, and rebuilding the fishery to a level that benefits more than just short-term harvest (recreational, charter and tackle industry sector response)*
- *This should allow a balance between the need to rebuild stocks and to improve the economic viability of the fishery (peak body response)*

Comments received from the commercial sector were mixed with suggestions ranging from not increasing pressure while stock recover, to full support for the proposal to assist the heavily regulated sector, through to increasing the proposed TACC further to 350 tonnes, or more.

Conservation sector respondent supported the rebuilding to B_{MEY} principal but also urged that:

- *The Great Barrier Reef is a World Heritage listed site of outstanding universal value, which is why its fisheries must be managed to the highest global standards (peak body response).*

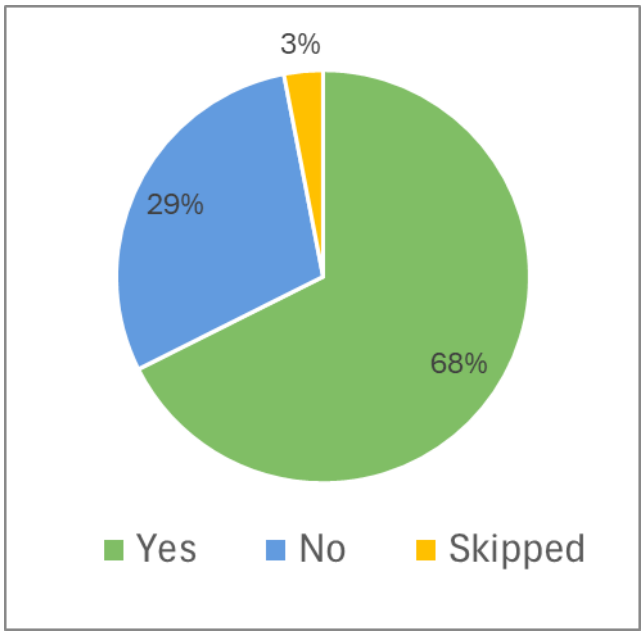
Others noted the proposal was basically the same objective as it was previously, or provided conditional support based on the objective being revised and lifted once the stock biomass has rebuilt.

THE FISHERIES SCIENCE

B_{MEY} is a more conservative position than B_{MSY}, meaning more fish in the water at B_{MEY} than B_{MSY}. This can result in higher catch rates and better recreational, charter fishing experiences and leaves more fish in the water for traditional owners and subsistence fishing than other targets. In this way B_{MEY} targets benefit both commercial and other sectors aspirations.

While there is merit is allowing the stock to recover further, the target at which to aim can be determined now. This would allow fisheries management to be planned to meet that target through time and this can be assessed regularly through fishery monitoring and stock assessments.

Proposal 2: Do you support the proposal to amend the east coast Spanish mackerel harvest strategy target reference point from 60% of unfished biomass to 48%?



Overall, there was support (68%) for the proposal to reduce the harvest strategy target reference point from 60% to 48% unfished biomass (Figure 4).

While a small number of respondents skipped this question, the majority of each sector supported the proposal. The least support came from the conservation sector (50%) and interested community members (58%), while strongest support came from the commercial and recreational fishing sectors (76% and 67% respectively, Figure 5).

Figure 4: Overall support or opposition to the proposal to reduce the target reference point to 48% unfished biomass (B_{48}).

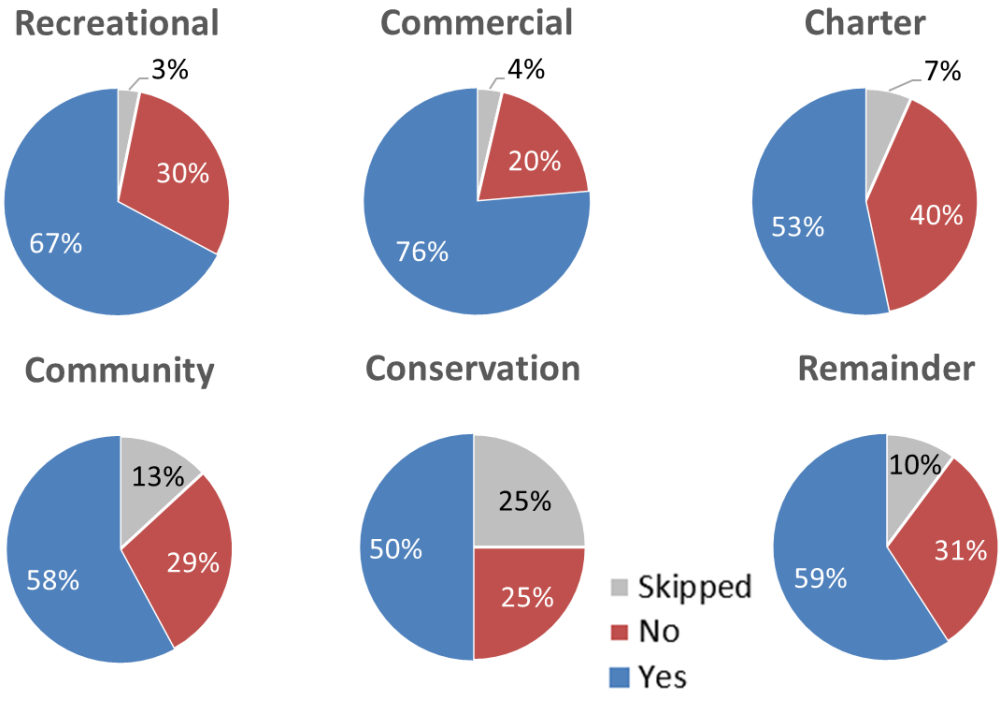


Figure 5: Sector responses to proposal 2 – *Do you support the proposal to amend the east coast Spanish mackerel harvest strategy target reference point from 60% of unfished biomass to 48%?*

While most respondents agreed with reducing the target biomass (B_{TARG}) from 60% to 48% (Figure 4) with 29 comments relating to the proposal not supportive. For example:

- *…I rely on healthy fish stocks for long-term sustainability. Reducing the target risks further stock decline (given figures are accurate), harms small businesses, and benefits short-term interests over future recovery. The 60% target must remain to support a resilient fishery (charter operator, recreational and tackle industry sector response).*
- *Definitely not! A return to a minimum of 60% unfished biomass is the scientifically acceptable limit for sustainable fishing (commercial fishing sector response).*
- *… A higher target is critical to ensure resilience of the fishery, protect against environmental variability (such as climate impacts and recruitment failures), and maintain public confidence in management decisions. Lowering the target reduces the margin of safety and risks undermining long-term recovery.*

Other comments opposing the reduction in target reference point included leaving more fish in the water and maintain the higher experiential capacity within the fishery for charter and recreational users, to allow for poor recruitment years which are likely to occur with more frequency in a changing climate, and that the reduced target lowers the goal for short term economic gain and not environmental and biodiversity goals. Some suggested not to prioritise economic or social advantage over environmental needs, not making political based decisions, or that we should wait until we have more information or are more confident in the results before making the proposed changes. As with Proposal 1, some suggest management remain the same for 5 years before reviewing or until there is more certainty in the results.

Others focused on potential ecological impacts noting that the species is an important apex predator and their reduced presence could lead to cascading ecological. Others argued that the natural ecosystem operates independently of political considerations, cautioning that changing management targets does not address the underlying issue of insufficient fish numbers in the system. One alternative was suggested to set the target reference point at 50% while others requested caution be applied or that the change was overly cautious.

A conservation peak body raised other concerns including national and internation expectation of fisheries management in the Great Barrier Reef World Heritage Area:

- *As outlined in the Reef Authority's Position Statement on Sustainable Fisheries, a number of recommendations have been outlined, including the objective that "target fish populations are managed to achieve 60% unfished biomass by 2027 and maintained into the future". Fisheries within a World Heritage Area like the Great Barrier Reef must be managed to the highest standards, setting a global benchmark for sustainable management. Setting a target of 60% unfished biomass for a fishery, as commercially and recreationally valuable as Spanish mackerel, is essential. UNESCO has set a clear expectation for Australia, to manage fish stocks to a B_{MEY} of 60% of unfished biomass by December 2027. Anything below 60% fails to provide the resilience needed for long term sustainability and is unacceptable in a World Heritage area.*

Of the relevant comments received, some comments supported the proposal. For example:

- *Queensland's Harvest Strategy Policy aims for 60% of unfished biomass by 2027 for shared stocks, but this figure is not consistently backed by peer-reviewed scientific literature or empirical modelling. Most fisheries agencies around the globe use targets between 30 – 50%. The Australian Fisheries Management Authority's Harvest Strategy Policy encourages targets that maintain stocks above the limit reference point (often 20% B_0) and ideally near the target (e.g. 40–48% B_0 depending on species and fishery). These targets seem more appropriate for species such as Spanish mackerel which are fast growing and early to reproduce (peak body sector response).*

Other supporting comments focused on Spanish mackerel being one of the more prolific and sustainable species in our fishery that we should be able to sustainably harvest, and that the practice (B_{48} target) aligns with world fisheries expectations and would allow people to catch and enjoy more local fish. One argued that the target reference point should be lower.

Many comments received on this proposal reflected concerns about other proposals in this report and have been shifted to be addressed in the general response section in this report (see Other issues, opportunities and solutions).

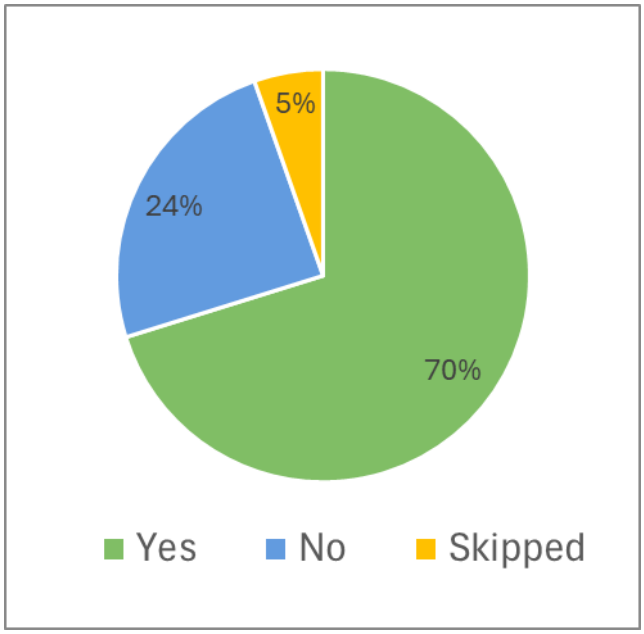
THE FISHERIES SCIENCE

A target reference point of B_{MEY} of 48% provides greater access to fish than a B_{MEY} of 60%, while still providing for sustainable fishing into the future.

Additional expectation are put on Queensland's fisheries management of stock within world heritage areas through national and international agreements.

Fisheries Queensland will conduct stock assessments in the future to monitor stock recovery. If this stock is not recovering adequately, the harvest strategy decision rules will direct action to return to more conservative fisheries management.

Proposal 3: Do you support the proposal to amend the harvest strategy objective to remove the interim rebuilding limit reference point (B_{40}) of 40%?



Overall, there was strong support for the proposal to remove the interim rebuilding limit from the harvest strategy with 70% of respondents indicating support (Figure 6).

As with Proposal 2, the majority of each sector supported this proposal except the charter fishing operators sector who provided the least support (47%). The strongest support came from the commercial fishing sector (80%) and conservation sectors (75%, Figure 7). The remaining sectors each expressed a majority support from 57% - 70% for the proposal.

Figure 6: Overall support or opposition to the proposal to remove the interim rebuilding limit reference point of 40% unfished biomass.

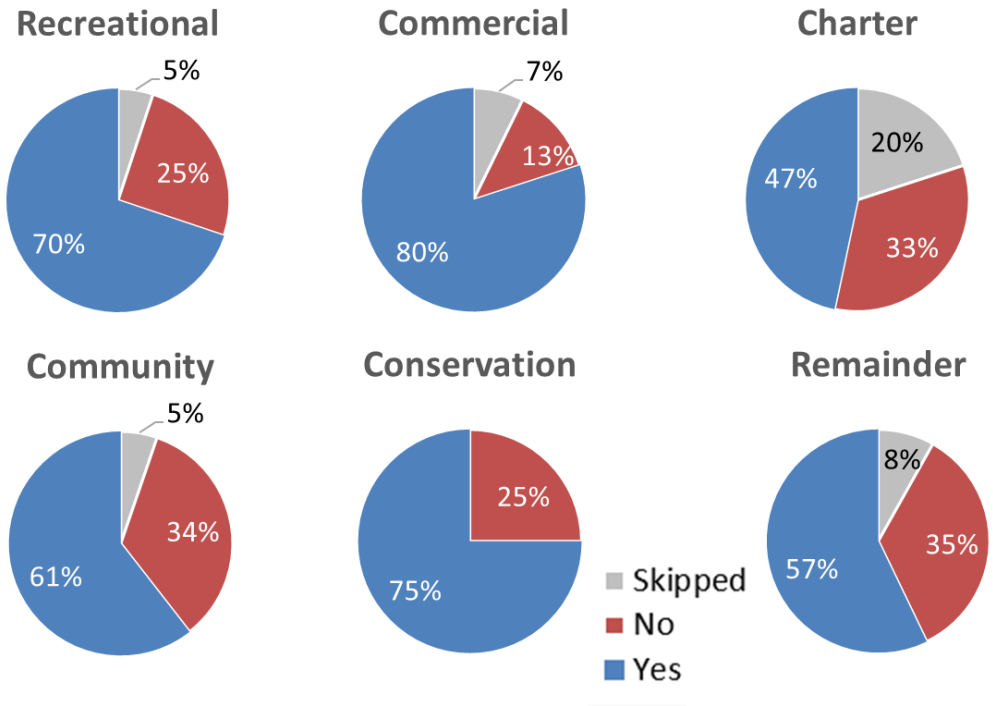


Figure 7: Sector responses to proposal 3 – *Do you support the proposal to amend the harvest strategy objective to remove the interim rebuilding limit reference point (B_{40}) of 40%?*

As with the previous proposals, while most respondents agreed with the proposal (Figure 6), 11 of 16 comments opposed it. For example:

- *I do not support removing the B_{40} reference point. It's a vital safeguard to ensure rebuilding of the Spanish mackerel stock. With the biomass already critically low, removing B40 weakens accountability and risks long-term sustainability. We need stronger, not weaker, recovery measures to protect the fishery, the charter and tackle industries, and future access for recreational fishers (recreational, tackle industry and charter operator sector response).*

Opposing respondents cited the interim rebuilding reference limit (B_{40}) as an important safeguard to rebuild critically low Spanish mackerel stocks. Concerns were raised that removing B_{40} would weaken accountability and jeopardise long-term sustainability and respondents emphasised the need for stronger recovery measures to protect the fishery, associated industries, and future access for recreational fishers.

Some argued that more time is needed before considering the removal of B_{40}, as the current biomass levels are insufficient to justify such a change. Several respondents suggested leaving B_{40} in place or even increasing the rebuilding limit to ensure the ecosystem's health and the sustainability of Spanish mackerel stocks. Stakeholders provided the following reasons to keep interim rebuilding reference point:

- *that bowing to a few noisy commentators doesn't make for good science, the stocks are significantly less than they once were and trying to make it the way it was will not work as the stock will deplete rapidly (recreational fishing sector response)*
- *there needs a bit more time before the interim rebuilding reference point can be removed (Traditional Owner / fisher and recreational fishing sector response),*
- *that we need a higher unfished biomass or leave it until more data is available (recreational fishing and other sector responses), and*
- *that the East coast Spanish mackerel harvest strategy: 2023-2028 should not be amended unless to improve the ecosystem that mackerel contribute to (other sector response).*

Other general comments expressed showed that many respondents requested clearer communication and stronger evidence to support any proposed changes. Others were concerned about the data used and science behind the proposal.

Of the relevant comments received, the supportive comments and included that removing the interim rebuilding reference point would ensure the people who enjoy eating Spanish mackerel can have sustainably caught Queensland fish rather than imported product. Recreational fishers expressed mixed views, with some advocating for increased catch limits and others supporting more sustainable management. Peak bodies noted conditional support, for example:

- *…we support the proposal to amend the harvest strategy objective and remove the interim rebuilding limit reference point (B_{40}) of 40%, as the fishery should be managed to an MEY target of 60% (conservation sector response)*
- *…on the proviso that stock levels continue to increase toward 40% B_{40}. Given there is still some stock fragility (see conclusion of Stock Assessment), we would like to see more regular assessments completed. Regular assessments may also build the confidence of fishers in the assessment outputs, as many still believe the previous stock assessment was incorrect and resulted in unfair and unwarranted impacts on their businesses. It should be plausible to input catch and effort data into the Stock Synthesis Model each year until there is confidence that the Spanish mackerel stocks have*

returned to target levels. We were unable to locate any East Coast Spanish Mackerel stock projections. We believe none were published. If this is the case that is unfortunate as it would help inform management decisions (peak body response).

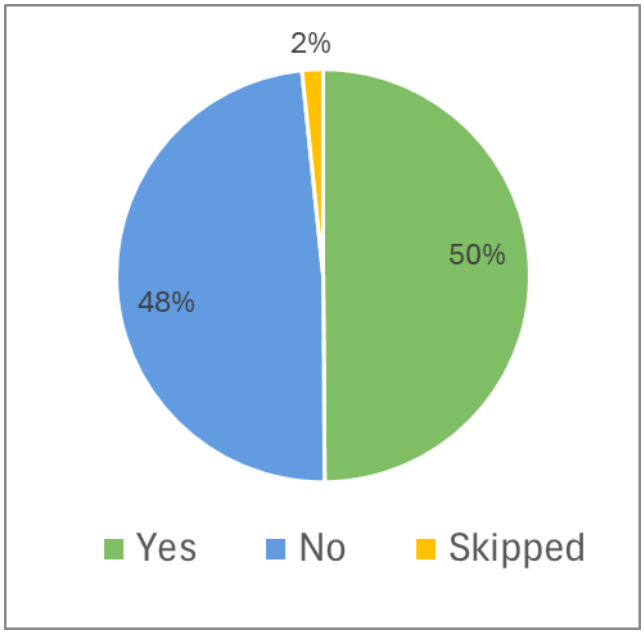
THE FISHERIES SCIENCE

As the stock is rebuilding and likely around 34% biomass, the risk profile for the stock has changed compared to the understanding of the stock in 2022.

The interim reference point was a feature of a rebuilding harvest strategy that was based on the assumption the east coast Spanish mackerel stock could be below the trigger reference limit of B_{20} or 20% unfished biomass. This interim level is set as a limit to rebuild above before additional harvest strategy decision rules could be implemented. As the 2025 stock assessment has indicated that the stock was not below B_{LIM} - and that the stock is now rebuilding, the interim reference pointis no longer a required precaution under the Queensland Harvest Strategy Policy.

The removal of the B_{40} interim rebuilding reference point does not mean that the stock will not be monitored closely to determine continue recovery or decline.

Proposal 4: Do you agree with the proposal to increase the total allowable commercial catch from 165 tonnes to 250 tonnes?



Despite the vast majority of respondents being recreational fishers (~80%), the response to this proposal was split. There was no overall strong support for or against the proposal to increase the total allowable commercial catch (TACC) to 250 t (Figure 8).

Recreational fishers, interested community members and conservation focused respondents were each approximately evenly split on this proposal, while the strongest support came from the commerical (89%) and charter fishing operators (60%) sectors. The combined group of hospitality, peak body, seafood wholesalers, Traditional Owners and fishers and others provided the least support (43%, Figure 9).

Figure 8: Overall support or opposition to the proposal to increase to total allowable commercial catch from 165 t to 250 t.

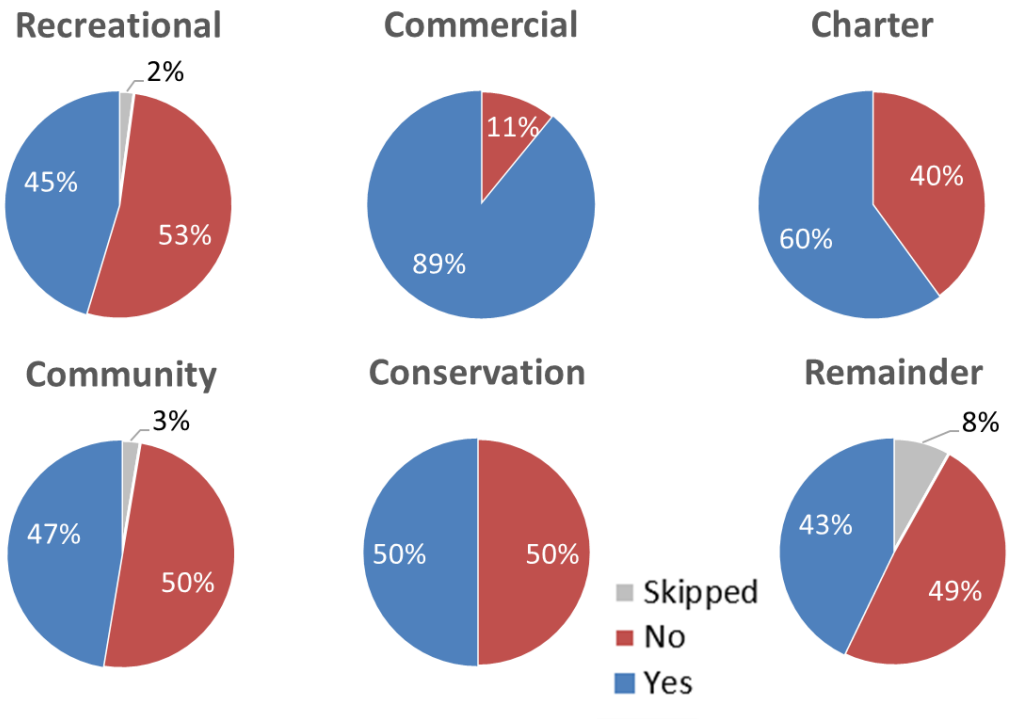


Figure 9: Sector responses to proposal 4 – *Do you agree with the proposal to increase the total allowable commercial catch from 165 tonnes to 250 tonnes?*

While respondents to this question were split on the proposal to increase the TACC to 250 t, over 110 comments were received with 78 opposing the change. Many respondents on both sides acknowledged the importance of commercial fishing in providing fresh, affordable fish to local markets and supporting local communities but stressed the need for sustainable practices.

A significant portion of opposing respondents across all categories cited concerns about stock depletion, shark predation, and the need for more time to rebuild biomass. Concerns were expressed that the proposed 50% increase is too drastic and risks further depleting Spanish mackerel stocks, which are already considered "depleted" or "recruitment impaired" in some assessments. Many respondents highlighted the potential negative impact increasing the TACC could have on biodiversity and ecosystem health. Several respondents suggested smaller, incremental increases (e.g., 30% increase, or a TACC of 200 tonnes) arguing that the fishery needs more time to rebuild before any significant changes are made and to allow for monitoring and adaptive management.

Comments opposing the change include:

- *I support an increase in the commercial catch allocation, but I believe the proposed jump from 165 tonnes to 250 tonnes (a ~50% increase) is excessive at this time. Instead, I support a more moderate 30% increase. This approach balances economic benefits for the fishing industry while still safeguarding the recovering stock. It is more prudent given the uncertainties in the 2025 stock assessment and the risks of slowing or reversing the recovery trajectory (no affiliation identified).*
- *I do not support increasing the TACC to 250t unless independent science confirms the stock is recovering and the increase won't delay rebuilding. The fishery is still well below sustainable levels. Any change must ensure charter and recreational access is protected, be part of a transparent recovery plan, and include strict monitoring and review triggers. Without these provisions, the increase is premature and risky (charter operator and recreational sector response).*
- *The commercial catch is too high. Perhaps a staged approach over a 2 year period that lifts from 165 to 200t in year 1. If no negative effects lift to 225 in year 2 and then to 250t providing evidence supports no detrimental effects (recreational sector response).*
- *… The stock is already considered to be recruitment impaired therefore if more fish are removed from the system they will not recover. The current total allowable commercial catch should be maintained for a longer period so the stocks can replenish (other sector response).*

Other opposing comments included that no increase should occur until the 48% target reference point has been reached or that the proposal is inconsistent with environmental and biodiversity goals.

Support for the proposal came in the form of acknowledging the economic and community benefits, conditional support and those requesting a higher TACC. Many respondents believed the increase could help stabilise prices, reduce reliance on imports, and improve the profitability of commercial fishing. However, support was often contingent on ensuring the increase aligns with sustainable stock management, is backed by credible science, and includes strict monitoring and review mechanisms. Some respondents emphasised the need for a balanced approach that considers both commercial and recreational interests.

A minority of respondents, particularly commercial fishers, argued that the proposed increase was insufficient and suggested raising the TACC to 300–500 tonnes to better reflect historical catch levels and economic needs.

Comments supporting the increased TACC included:

- *As a commercial fisherman who leases quota, it has been very expensive fishing for Spanish mackerel and at times the cost alone of the quota has made it hard to even justify fishing for them. If the TACC is increased, it will help bring the cost of quota down and allow commercial fisherman to continue to target them for a greater profit without driving the price up for the consumer. It also discourage imported Spanish mackerel which is crippling our local market (commercial sector response).*
- *Queensland needs commercial fishing. This minor increase can help local communities access fresh fish (recreational and commercial sector response).*
- *Provided this figure is sustainable to longer term fish stocks and aligned with the primary objective at proposal 1 (recreational sector response).*

There was widespread frustration, particularly among recreational fishers and charter operators, about the perceived imbalance between commercial and recreational allowances. Many felt that the increase unfairly benefits the commercial sector while recreational limits remain restrictive, with some calling for increased recreational bag limits as part of any TACC adjustment or suggesting that the 85 tonne increase be split between the sectors. Others identified that the increase for commercial fishers would impact the recreational sector potential access into the future.

Charter operators who supported the proposal did so primarily for its potential to meet consumer demand for fresh fish and noted that commercial operators suffer less from shark predation than recreational fishers. A majority of charter operators comments in opposition to the increase, echoing concerns about sustainability, shark predation, and the disproportionate impact on recreational and charter access. They called for independent scientific confirmation of stock recovery before any increase is implemented.

Commercial fishers focused more on the challenges of quota leasing costs, the need for economic relief, market interaction and competitiveness, impacts of previous changes on the industry and reducing with other states and reducing transport emissions. Environmental and biodiversity concerns were raised across all categories, but recreational fishers and community members were more likely to emphasise the need for a cautious, evidence-based approach to stock recovery. Some commercial and recreational fishers raised the question of whether the increased TACC could actually be harvested given the reduced commercial fishery capacity, difficulty leasing from quota owners and loss of access during the peak historic fishing periods due to the seasonal closures. For example:

- *… the proposed increase would position east coast fishers on a more equitable footing with counterparts in the Gulf of Carpentaria and Northern Territory …Currently, restrictive catches have driven up reliance on imports or product from other regions, inflating costs for wholesalers, retailers, and families… By adopting the 300-tonne TACC, Queensland can foster fairer interstate trade, prevent market dominance by southern or northern suppliers, and bolster the financial viability of our fishers, enabling investments in modern, eco-friendly practices (commercial fishing sector response).*

Supporting peak sector bodies questioned how the 250 t TACC limit was determined, suggested proposed changes to harvest should be modelled and supported strong and sound science backed decision making free from political interference. There was also concern raised about how any additional TACC would be allocated, proposing access be granted retrospectively. One peak body sought to have greater recognition of the economic contribution of the recreational sector compared to the commercial sector. Peak bodies in opposition rejected any increase in harvest until stocks recovered due to the increased risk of overfishing for a species with a long-term declining biomass trajectory.

For example:

- *The trend in total biomass of east coast Spanish mackerel has been on a declining trajectory, especially over the last 8 years. Although the most recent stock assessment indicates an increase in unfished biomass, the overall trend remains downward, highlighting the continued vulnerability of the stock.…Considerable uncertainty surrounds the stock assessment data, particularly due to the hyperstability characteristics of Spanish mackerel…(and) due to threats, such as the loss of spawning aggregations and climate change, it is crucial to manage this valuable fishery using a precautionary approach to ensure long term stock resilience and sustainable commercial harvest (conservation peak body response).*
- *Allowing commercial fishers to increase their total allowable catch would increase the risk of overfishing, pushing the stock closer to reaching the limit reference point… impacting both the commercial and recreational fishing sectors…(conservation peak body response)*

In addition, respondents across all categories questioned the credibility of stock assessments and the rationale for the proposed increase, citing past perceived mismanagement, perceived flawed data collection methods, and a perceived lack of transparency. This distrust was particularly pronounced among recreational fishers and interested community members.

THE FISHERIES SCIENCE

When including the effects of depredation and post release mortality, the 2025 stock assessment estimated the recreational sector catch was ~260 t in 2023/24 down from the 10 year average of ~380 t (a decrease of 120 t or 32%). The commercial sector landed 147t in the same year down from the ten year average of 315t (a decrease of 168 t or 53%). This indicates the commercial sector were unintentionally disproportionately impacted by the management changes introduced from 2022 resulting in a catch share shift (prior to knowledge of the impact of depredation). Under harvest strategy Decision Rule 3.3 management measures must be put in place to return the sector catch shares to 60% commercial and 40% recreational.

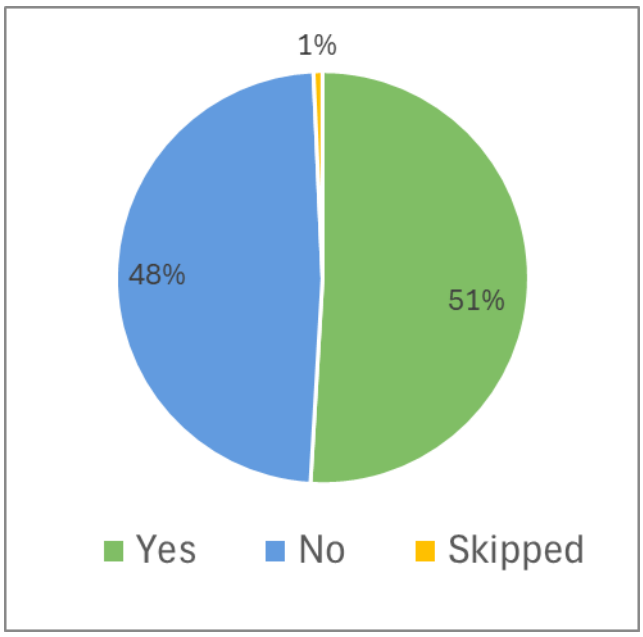
As the possession limit for recreational fishers is already 1 fish and cannot be lowered further without further closures in the fishery to recreational fishers, alternative approaches need to be investigated. One alternative would be to increase the seasonal closures for the recreational sector only. To make them long enough to return the rec sector harvest to reduce to around 110 t (40% of the harvest share if the TACC is 165 t). This would require a 9 month closure of the fishery to the recreational sector, and as such, was not considered a viable option. Other options were explored such as providing greater access to the commercial sector who were unintentionally disproportionately impacted by the management changes from 2022. This approach will also means a longer period to recover the stocks to the target biomass, but would improve industry viability in the meantime.

The suggested staged approach in increasing the TACC has merit but may not allow effective relief to the commercial sector viability. Concerns raised about stock status still being depleted should note the 2025 stock assessment estimated the biomass at 34%, well above the biomass trigger limit of 20% unfished biomass, and that the northern seasonal closure protects the spawning aggregations and provides some insurance for improved recruitment in the fishery.

The 2025 assessment addressed concerns that were raised about the previous assessment and used several new approaches including having an independent scientist and industry members on the project team, as well as new improved methodology in dealing with hyperstability in catches. This approach is already being used in other stock assessments currently underway.

Proposal 5: Do you support the proposal to increase the recreational boat limit from 2 per boat with 2 or more people on board to 4 per boat with 4 or more people on board?

As with the Proposal 4, overall there was no clear support for or against an increase the recreational boat limit to 4 per boat with 4 or more people on board (Figure 10).



There were differences in the level of support for the change, depending on the stakeholder group (Figure 11). The strongest levels of support came from the commercial sector (64%). The conservation sector (63%), charter fishing operators (60%) and interested community members (58%) opposed the proposal. The recreational sector was evenly split on the proposal; however, a number who said 'No' to the proposal also support higher recreational access. If these are included as supporting the proposal, the recreational sector changes to more than 83% support for an increase in access of some sort.

Figure 10: Overall support or opposition to the proposal to increase the recreational boat limit to 4 per boat, with 4 or more people on board.

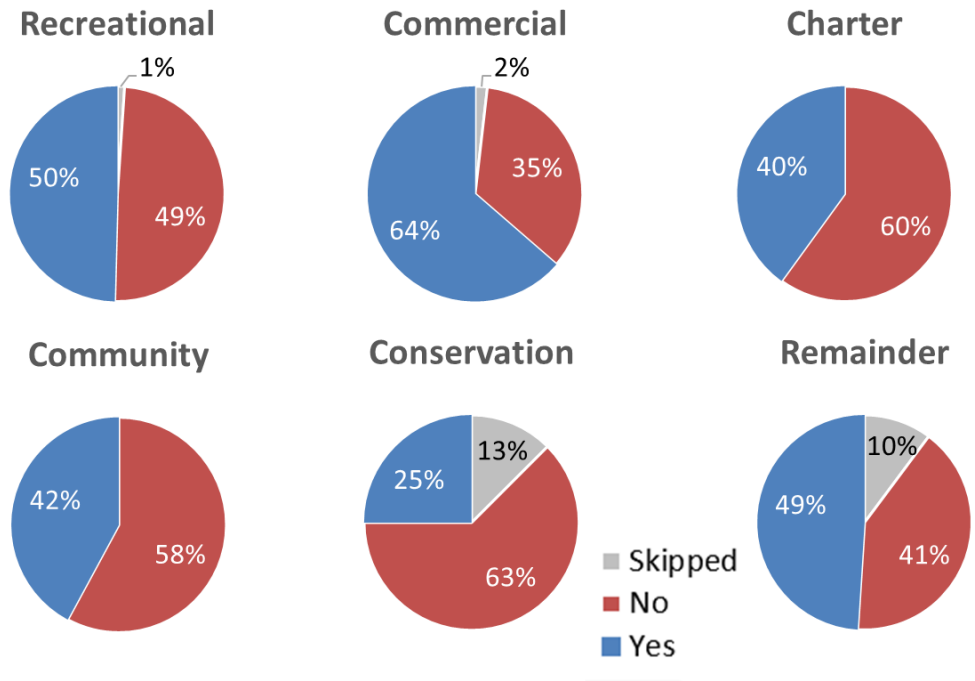


Figure 11: Sector responses to proposal 5 – *Do you support the proposal to increase the recreational boat limit from 2 per boat with 2 or more people on board to 4 per boat with 4 or more people on board?*

While the overall response to this proposal was split, the question generated the most interest with 258 comments received including 234 from recreational fishers. Seventy-five respondents supported the proposed increase in boat limit, viewing it as a step in the right direction to improve fairness and practicality for recreational fishers, particularly for families and larger groups. However, support was often contingent on additional changes, such as increasing the individual bag limit to 2 fish per person, simplifying the rules to make them easier to understand and enforce, or additional recreational fishing reporting.

Respondents highlighted the high costs of fishing (e.g., fuel, bait, and equipment) and argued that the current limits make fishing trips less economically viable. Others saw increasing the boat limit was seen as a way to make fishing trips more worthwhile. In addition, some respondents believed the proposed increase would not significantly impact fish stocks and could be managed sustainably with proper monitoring and enforcement.

Comments supporting the proposal include:

- *Compulsory recreational monitoring through an app must be introduced. It will add to the accuracy of assessment, and can be presented to the public as a positive step. Accurate information coming from it could potentially lead to increased access, and it could be presented to the public in this way. (recreational and commercial sector response)*
- *I support increasing the recreational boat limit to 4 for boats with 4 or more people. It's a fairer, more practical approach for families and charter trips, improves fishing experiences without significantly increasing pressure, and reflects real-world fishing. The change maintains sustainability while better supporting the recreational and charter sectors (recreational, charter and tackle sector response).*
- *To a degree yes, I do, though it should be 2 per person with boat limit of 4 as was put forward by a lot of people to the previous government… (recreational fishing sector response).*

Comments in opposition to the proposal (180) also included those seeking greater access for recreational fishers. Some expressed insufficient change in access under the proposal, or sighted complexity and enforcement issues. Many respondents felt the proposal does not meaningfully benefit most recreational fishers, as the majority of boats typically have fewer than 4 people on board. Respondents also argued that the limit should instead be increased to 2 fish per person, with a maximum of 4 per boat. A recurring concern was that the proposal disadvantages those fishing alone or with smaller boats. Many criticised the proposal as unnecessarily complicated and called for simpler rules, such as a flat limit of 2 fish per person, or 4 per boat regardless of the number of people on board.

Other respondents opposed any increase citing concerns about overfishing, increased depredation with the increasing boat limit, possibility of upgrading with the low personal possession limit and the need to prioritise stock recovery and sustainability concerns. There were also suggestions to use an increase in access for the recreational sector as incentive when proposed reporting requirements were met.

Only 9 recreational fishing respondents suggested less access (i.e. a 2 per boat limit), or to hold off on making changes until there was more data to support a shift. There were several comments indicating the proposal represented no real change in recreational fishing access and was political posturing, or disingenuous or that they did not trust the data or department.

Comments opposing the proposal but also seeking increased access for recreational fishers include:

- *I think that most anglers would agree that 1 per person would be better than the proposed adjustment. Most people fish in a boat around 5m. Usually that is 3 anglers. The 4 fish needing 4 anglers is going to be no change for that majority. Max 4 fish per boat I'd support (commercial sector response).*
- *This should be increased to 2 fish per person up to 2 person's on the boat. From 3 person's and up should be 1 fish per person. This will help even out the vessels costs per fish caught for consumption (recreational fishing sector response).*
- *…Changing the boat limit to 4 while retaining the per person limit at 1 feels like a disingenuous way of making it look like you are increasing the limit but in a way which won't change anything for the majority of recreational anglers. Meanwhile, the commercial sector gets a 51% increase in their quota (recreational fishing sector response).*

Conservation-focused respondents opposed the proposal, citing concerns about overfishing, the impact on biodiversity, and the need to prioritise stock recovery. They argued that the current limits should remain in place until there is clear evidence of stock improvement

While the vast majority of respondents were recreational fisheries (92%), some commercial fishers supported the proposal, viewing it as a fair adjustment for recreational fishers. Other commercial fishers opposed the increase, arguing that the recreational sector already catches more (64%) than the commercial sector (36%), well above the sector allocation under the harvest strategy (40% recreational, 60% commercial) and that the proposal could exacerbate overfishing. Both those supporting and opposing the proposal emphasised the need for better monitoring and reporting, if not mandatory reporting, of recreational catches to ensure accurate data and compliance.

Other opposing comments related to his included:

- *There is already no control over the recreational sector. No licenses, no fee contributions to research and no mandatory requirements to report on actual catch limits or even areas of potential fishing effort (commercial sector response).*
- *Shark depredation in the recreational fishery is unacceptably high due to the lighter gear used. Allowing 4 fish to be kept means 10 fish will be hooked and killed, 6 to sharks (commercial sector response).*
- *…Current estimates of recreational harvest are often based on surveys with limited sample sizes and potential biases, leading to uncertainties in total take and allocation adherence. To ensure equitable and sustainable management, I urge Fisheries Queensland to prioritise enhanced data gathering methods, including mandatory reporting apps, expanded creel surveys, electronic monitoring or a tag system for the recreational sector, before approving any additional access. This would provide evidence-based confidence that recreational harvests remain within allocated limits, preventing overexploitation and supporting the overall harvest strategy's goals (commercial fishing sector response)*

Peak bodies either did not support the increase in boat limit due to the need to rebuild stocks, or felt it was not a realistic or effective increase for the recreational sector. One argued that the recreational sector should be further supported in recognition of its economic and employment contribution. Another had mixed views noting lack of robust and reliable data on the sectors harvest and argued for licensing and reporting requirements, as has been done in other jurisdictions, to help ensure the stock rebuilds.

There was also a question of whether the shift in catch shares as a result of the previous and proposed management arrangements would trigger compensation for the commercial sector. Again, additional modelling of this proposal was requested to resolve this concern.

THE FISHERIES SCIENCE

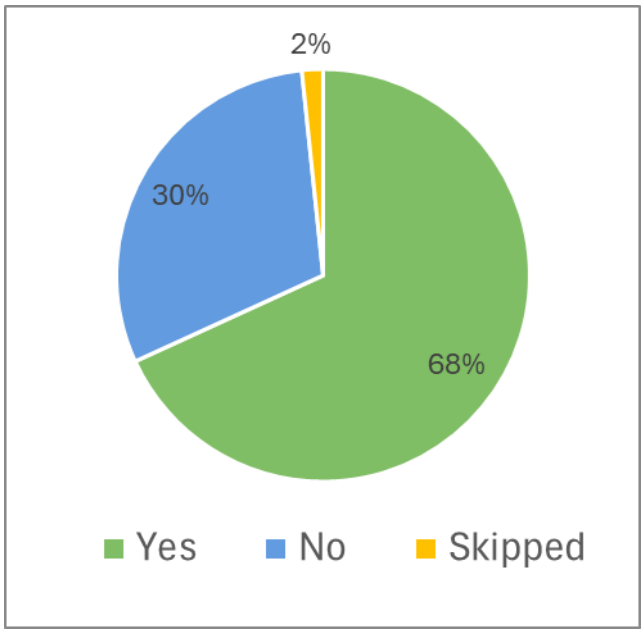
The 2025 stock assessment estimated the recreational sector catch was ~260 t in 2023/24 when including the effects of depredation and post release mortality, around 150 t above the 40% sector allocation. The commercial sector landed 147t in the same year (36% of the overall harvest).

Under harvest strategy *Decision Rule 3.3* management measures must be put in place to return the sector catch shares to 60% commercial and 40% recreational.

While overall there was significant support for the 4 per boat limit, even among those who said 'No' to the proposal, there was a very strong response to change the personal possession limit to 2 per person across all sectors. In addition, there were a number of comments suggesting a higher boat limit, no boat limit at all, or suggested no recreational in possession limit. These responses indicate the majority of respondents either did not understand, did not appreciate or did not accept that the recreational fishing sector is already harvesting beyond the sectors catch share arrangements under the harvest strategy. Respondents reading this report should note the proposals did not include any such a change to the personal recreational in-possession limit as this would further exacerbate the sector catch share arrangements.

The boat limit increase proposed would allow for recreational fishers with more than 2 people on board to take home more fish without dramatically further exacerbating the sector catch share ratio. How effective the proposals discussed here are in correcting the sector catch shares may be reviewed with the next stock assessment if this proposal goes ahead.

Proposal 6: Do you agree with setting the 2 x 3 – week closures north of 22°S around the new moon in October to December?



Overall, there was strong support (68%) for the northern Spanish mackerel seasonal (spawning) closures (Figure 12).

There were limited differences in the level of support for the change across stakeholder group (Figure 13) at around 60 - 75%, except for charter fishing operators who were relatively evenly split on the topic. The strongest levels of support came from the conservation (75%) and recreational fishing sectors (69%).

Figure 12: Overall support or opposition for the northern Spanish mackerel closure dates around the new moon in October to December each year.

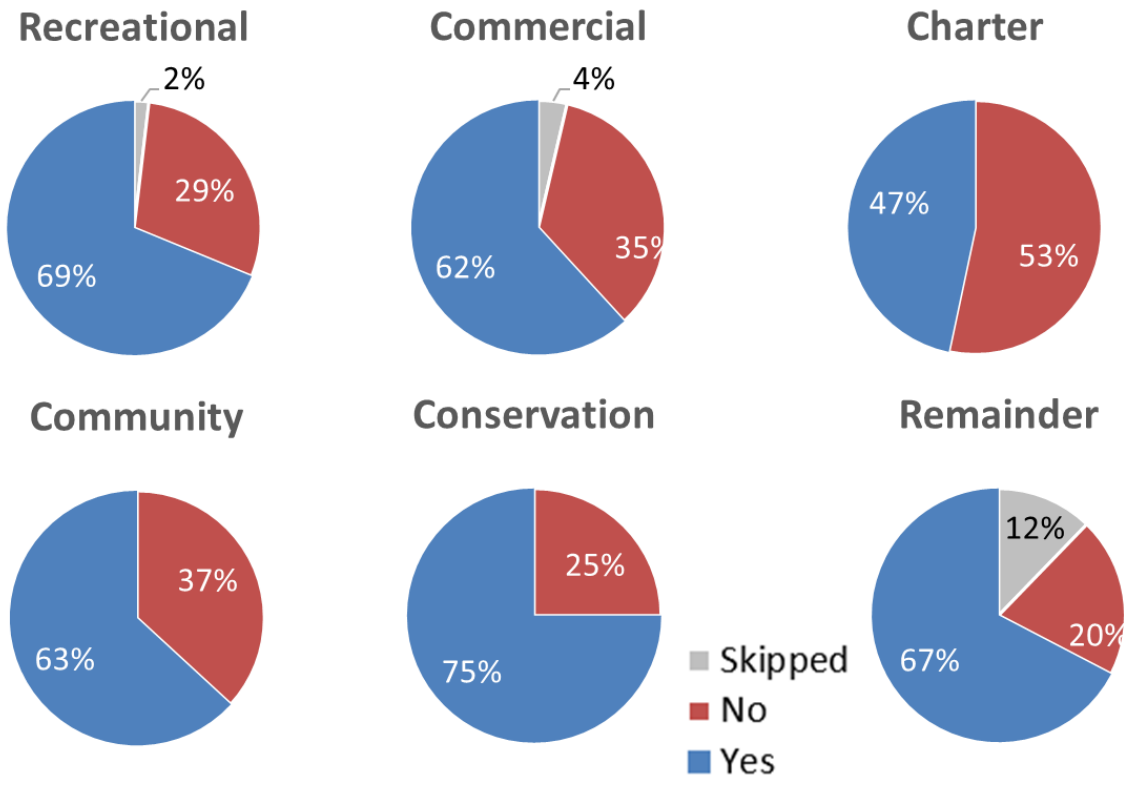


Figure 13: Sector responses to the question – *Do you agree with setting the 2 x 3 – week closures north of 22°S around the new moon in October to December?*

While there was general support (68%) for spawning protection there were also 95 comments received. Forty-four respondents (46%) recognised the importance of protecting Spanish mackerel during their spawning period. Supporters of the closures often cited the effectiveness of closures in rebuilding stocks and to ensure stock sustainability. Some respondents supported the closures but emphasised the need for accurate, evidence-based science to determine the timing and location of closures. While several respondents suggested that closures should focus on specific spawning aggregation areas rather than broad geographic zones, to minimise unnecessary restrictions while still protecting spawning fish. For example:

- *Some members support the closure of the area around latitude 18, particularly Rib, Bramble and Keeper reefs, due to the apparent presence of spawning aggregations as shown in historic catches (peak body response)*
- *These closures have worked well. As a commercial operator we have definitely seen the results (commercial and wholesaler sector response)*

Forty-nine comments in opposition to the proposal (54%) included suggestions the natural weather restriction during the closure period already limiting fishing activity making the seasonal closures unnecessary, while other recreational fishers cited concerns about losing access to a popular activity during a time of year with favourable weather. Respondents argued that the closures disproportionately affect recreational fishers while commercial quotas are being increased.

While there were also some concerns about the accuracy of the science underpinning the closures, arguing that spawning times vary by location and water temperature, others suggested that the closures are too long and should be shortened to better align with actual spawning periods. Several respondents criticised the combination of closures and strict catch limits, arguing that it creates unnecessary complexity and overregulation.

- *The closures should be moved to at least a month earlier to coincide with spawning aggregations (recreational fishing sector response)*.
- *…Spanish follow water temperature, they breed at all different stages up the east coast pending on water temperature, so if water isn't correct temperature during the ban they'll end up breeding outside the ban …(recreational fishing sector response).*

Specific sectors had some differences in their comments. The commercial sector fishers generally supported the closures, recognising their importance for stock rebuilding. Some suggested that closures should be revisited once stocks recover, while others called for more targeted closures based on spawning aggregation areas. Opposition among commercial fishers was limited but focused on concerns that weather already restricts fishing and that closures may not be necessary if quotas and bag limits are set correctly. For example:

- *…I object to the broad implementation of the northern seasonal closures… blanket closures… unnecessarily restrict access for the quota-controlled commercial sector during a critical period, exacerbating financial pressures on fishing businesses already strained by recent quota cuts… spawning aggregations are primarily concentrated around main reefs at latitude 19… I recommend refining these protections to target only the key spawning reefs in this area…(and) changing the northern closures to represent the same period and timeframe as the current reef fin fish closures being 2 x 5 day closures … This targeted approach would maintain stock protection during peak spawning while enabling fishing businesses to remain viable and diversified, avoiding unnecessary downtime and supporting year-round operations essential for economic resilience (commercial fisher response)*

Charter operators supported the closures as a conservation measure but emphasised the need for exemptions or modified rules for their sector. Operators who opposed the closures highlighted the economic impact on their businesses and expressed concerns about the cumulative effect of closures on their ability to operate. They suggested the closures limit their ability to operate during the peak fishing season, which coincides with the Marlin season (October–December) and argued that this could significantly impact their income. For example:

- *I support the two 3-week closures north of 22°S around the new moon (Oct-Dec) to protect spawning Spanish mackerel. However, I strongly recommend that charter fishers be exempt or have greater access during this period, as they operate under strict limits and depend on this season for business. Exemptions would balance conservation with the economic sustainability of the charter sector (charter operator, tackle industry and recreational fisher response).*

Many recreational fishers supported the closures conditionally. Some suggested that closures should be paired with changes to recreational possession limits to make the fishery more equitable. Opposition among recreational fishers was strong. As with commercial fishers, many recreational fishers argued that weather already limits fishing, while others felt the closures were too restrictive given the already low recreational bag limits. For example:

- *The closures should be moved to at least a month earlier to coincide with spawning aggregations (charter operator and recreational fishing sector response).*
- *The closures are too restrictive …. They should be the same length of time as the …[coral reef fin fish]… closures. These closures impact the Spanish mackerel fishery harder than any other fishery as 7 days fishing makes the industry not commercially viable during the main fishing season (commercial fishing sector response).*

Support from conservation focused respondents, interested community members and other respondents expressed concerns about the rationale for closures. Some sought for the closures to be a full 12 week closure, or noted that environmental conditions impact the timing of spawning each year. This selection of sectors supported the closures as an effective measure for rebuilding stocks. Some suggested that closures should be revisited once stocks recover or emphasised the importance of protecting spawning fish and ensuring that closures apply equally to both commercial and recreational fishers. For example:

- *…we recommend strengthening this measure to cover the full 12 weeks of spawning each season. Spawning aggregations … are predictable, seasonal events that attract intensified fishing pressures, leaving the species highly vulnerable to overfishing. During these periods, stock recruitment can be heavily impacted, leading to adverse effects on stock recovery and long term sustainability of the fishery. Allowing … access to the spawning aggregations will lead to significant harvest at this vulnerable and critical period of their life cycle, inhibiting recruitment into the fishery and delaying the recovery (conservation peak body response).*

Opposition from conservation groups, interested community members and other respondents expressed concerns about the rationale for closures, particularly in light of proposed increases to commercial quotas. Some argued that closures should be based on local knowledge and more targeted research.

Several peak bodies requested an independent review of the closures, for example:

- *[*we*]… strongly encourage an independent review of the usefulness of closures (both spatial and temporal) for rebuilding SM stocks beyond 2025/26, similar to what was completed for the Coral Reef*

Fin Fish Fishery[1]*: i.e. a science based review to explore the biological need for temporal closures, and the socio-economic costs of different closure options. This should be followed by further collaborative consultation with industry, scientists and managers to explain and discuss the outputs … a more nuanced approach to the closures is possible, including a different approach for commercial and recreational fisheries (peak body response).*

THE FISHERIES SCIENCE

During September to December each year, Spanish mackerel school to form some of the most notable and predictable spawning aggregations of fish on the Great Barrier Reef (McPherson 1993, Tobin *et al*. 2014). These aggregations contribute substantially to the stock's overall reproduction level during the spawning months. However, spawning in Spanish mackerel also happens at other locations and used to occur from Cooktown in the north through to Townsville (Munroe 1946, Tobin *et al.* 2014, Buckley *et al.* 2017). Anecdotal comments from long-term fishers suggests that spawning aggregations of Spanish mackerel have notably declined in both space and time over a long period of time suggesting the reproductive capacity is diminishing (Tobin *et al*. 2014).

There is strong evidence that seasonal closures are an effective tool in reducing harvest, fishing pressure and protecting fish at vulnerable times in their life cycle – such as in the lead up to, during or after spawning events. Fishery-wide or regional closures may afford more protection than fine-scale area closures, especially for highly mobile species like Spanish mackerel. Further research would be required to assess the effectiveness of fine-scale area closures. However, closures are not a direct control on harvest and may also result in the redistribution of fishing effort outside the closure period or to other fisheries.

In combination with the reduced TAC, the current closures have contributed to the increase in stocks in 2023/24. Their continuation would be expected to provide further protection and help rebuild the stock toward the target biomass. Other benefits of a seasonal spawning closures includes insurance against further depletion of primary and secondary spawning locations, preserving spawning behaviour that underpin reliable spawning, reducing the potential selection against aggregation tendencies and truncated life histories, improved social licence for the commercial fishery to expand back to a volume relevant to their sector catch share, shared responsibility to improve the stock through application of closures across all sectors, protection of spawning aggregation world heritage values and reduced regulation complexity though aligning commencement with the coral reef fin fish fishery seasonal closures.

A principal of fisheries management in Queensland has been that all sectors share the responsibility for good fisheries management. This is typically born out through all sectors being subject to the same seasonal or spatial fishery closures and size limits. However, managements arrangements are not the same across the sectors (gear restrictions, licences, fees, reporting etc.) and as such, other arrangements could also be different across sectors in future.

[1] Walsh, T and Slade, S. (2009). Coral reef fin fish spawning closures. Risk assessment and decision support. Report on outcomes from a workshop held 12–13 May 2009. Queensland Department of Employment, Economic Development and Innovation.

Tobin, R.C., Simpfendorfer, C.A., Sutton, S.G., Goldman, B., Muldoon, G., Williams, A.J., Ledee, E. (unpubl report to QDPI). A review of the spawning closures in the Coral Reef Fin Fish Fishery Management plan 2003. Report to the Queensland Department of Primary Industries and Fisheries. February, 2009. Fishing and Fisheries Research Centre, School of Earth and Environmental Sciences, James Cook University

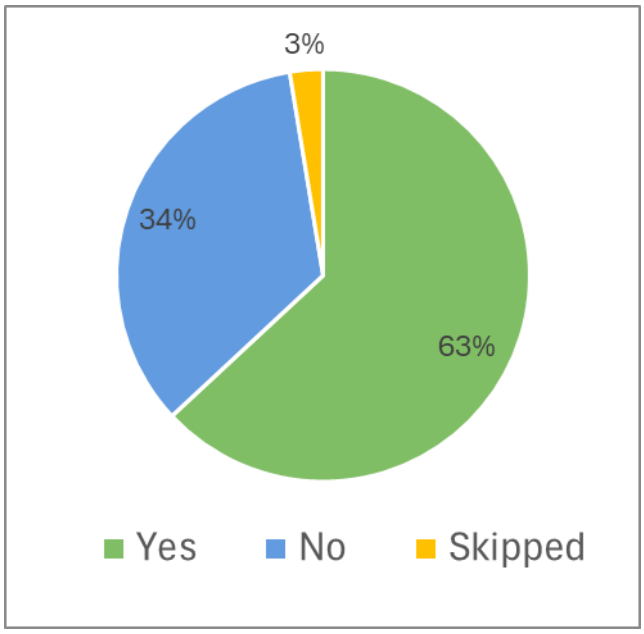
Buckley, SM, Thurstan, RH, Tobin, A and Pandolfi, JM 2017, Historical spatial reconstruction of a spawning-aggregation fishery, Conservation Biology 31, pp. 1322–1332 https://doi.org/10.1111/cobi.12940.

McPherson, G. R. (1993). Reproductive biology of the narrow barred Spanish mackerel (Scomberomorue commerson laeepede, 1800) in Queensland waters. Asian Fisheries Science, 8, 169-182.

Munro, I.S.R. 1942. The eggs and early larvae of the Australian barred Spanish mackerel, Scomberomorus eommereoni (Lacepede) with the preliminary notes on the spawning of that species. Proc. R. Soc. Queensl. 54(4):33-48.

Tobin, A., Heupel, M., Simpfendorfer, C., Pandolfi, J., Thurstan, R., & Buckley, S. (2014). Utilising innovative technology to better understand Spanish mackerel spawning aggregations and the protection offered by marine protected areas.

Proposal 7: Do you agree with basing the annual 2 x 3 – week closures south of 22°S from 1 – 21 February and 1 – 21 March inclusive?



As with the northern seasonal (spawning) closure, there was overall strong support for the southern Spanish mackerel seasonal (migration) closures with two-thirds (63%) of respondents indicating support (Figure 14).

There were some minor differences in the level of support for the change depending on the stakeholder group ranging from 53 – 71% support (Figure 15), except the charter sector whose majority opposed the closures (53%). The strongest levels of support came from interested community members (71%) and the combined group of hospitality, peak body, seafood wholesalers, Traditional Owners and fishers and others (65%).

Figure 14: Overall support or opposition for the southern Spanish mackerel seasonal (migration) closure dates in February and March each year.

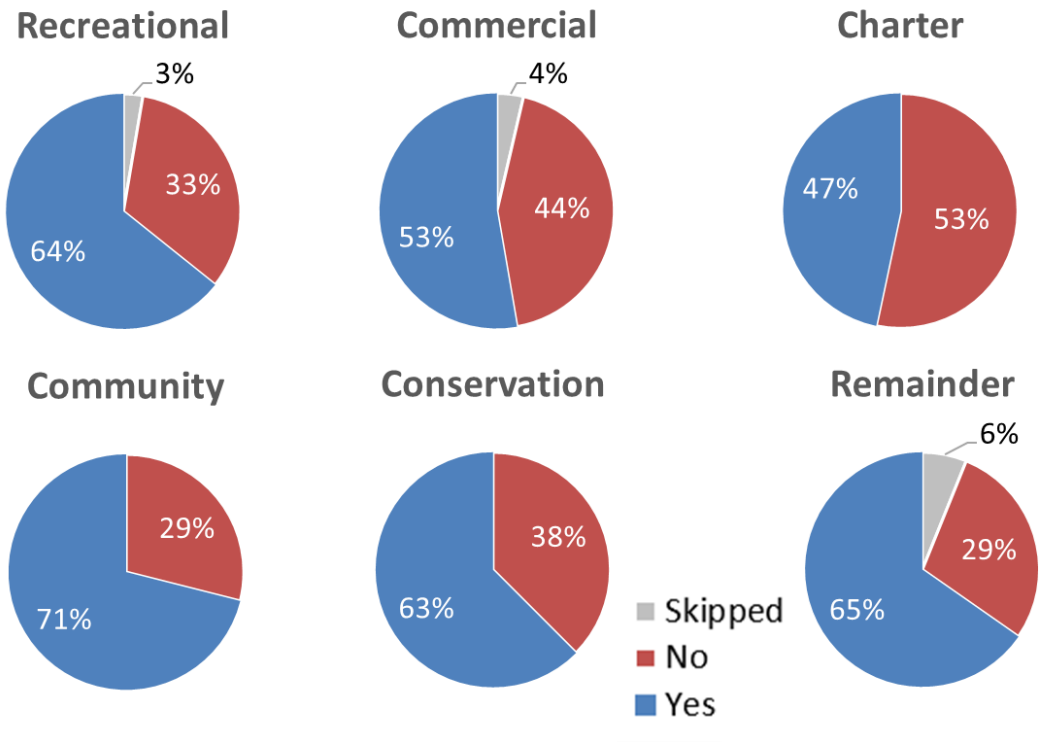


Figure 15: Sector responses to the question – *Do you agree with basing the annual 2 x 3 – week closures south of 22°S from 1 – 21 February and 1 – 21 March inclusive?*

While 63% of respondent supported the closures, 79 comments were also received. Many of these, both in support and opposing the southern seasonal closures to protect migrating stocks had misunderstood the purpose for the closure with the spawning aggregations north of 22°S. For example, many noted recognising the importance of protecting Spanish mackerel during their spawning period to ensure stock sustainability while others support was contingent on evidence-based science to confirm the timing and location of spawning.

In addition, a number of comments were received expressing a preference for management arrangements already in place. For example, the request for closures to apply equally to both commercial and recreational fishers to ensure fairness. These misunderstandings made it difficult to assess comments that questioned the accuracy of the science underpinning the closures, arguing that spawning times vary by location and water temperature or that the closures are too long and should be shortened to better align with actual spawning periods.

Others did cite the effectiveness of closures in rebuilding stocks and maintaining a sustainable fishery and some respondents called for real-time surveys and more targeted closures to ensure maximum effectiveness. Others provided conditional support while stocks are rebuilding requesting closures be reviewed at a later date.

Other comments received reflected the same support and opposition as for Proposal 6 above.

THE FISHERIES SCIENCE

Comments indicated some confusion over the purpose of the southern closure. The southern closure is designed to reduce fishing effort to protect migrating stocks, and to provide equivalent access to fishers fishing north and south of the 22°S. Spanish mackerel aggregate to spawn, but also aggregate throughout the year when feeding and migrating. Due to the seasonal movement patterns of Spanish mackerel up and down Queensland's east coast each year, seasonal closures have been applied separately in the northern and southern areas of the fishery at different times to coincide with the migration. This provides less restrictive management than fishery-wide closures while offering a comparable level of protection in each region at the appropriate time. Previous consultation in 2021 indicated that a split north/south closure would be the most appropriate form of seasonal closure for this fishery.

Closures are not a direct control on harvest and may also result in the redistribution of fishing effort outside the closure period or to other fisheries. While it is acknowledged that other measures might be preferrable for most stakeholders, there is strong evidence that seasonal closures are an effective tool in reducing harvest, fishing pressure and protecting fish at vulnerable times in their life cycle – such as when migrating in large numbers or aggregating to feed. The continuation of the southern closure could be expected to provide further protection and help rebuild the stock toward the target biomass. Other benefits include improved social licence for the commercial fishery to expand back to a volume relevant to their sector catch share.

Other issues, opportunities and solutions

There were 246 comments received through online surveys, additional submissions and emails sent to Fisheries Queensland on this question. An additional 232 comments made under other proposals, that were not related to that proposal, were considered here. Respondents raised a number of concerns which are summaries in Table 2 below.

Table 2. Summary of feedback regarding question 10 – Are there any other issues, opportunities or solutions that you would like to raise?

Issue	Feedback from stakeholders
Precautionary approach	Many respondents were concerned and expressed a need for caution in rebuilding stocks: • The balance between ecological management and the operation of the fishery is not easy, but it must be sensible, responsible, and justifiable • I believe we currently don't have the quality of data to make changes that put pressure on stocks • We support sound, science backed decision making free from political interference that provides certainty that stocks will continue to rebuild • Biomass levels must reflect the critical role of the species in the food chain and ecosystem • The harvest strategy should not be amended at the risk of ecosystem collapses caused by economic and social pressures
Additional expectations	Respondents that expressed greater expectation of the management of fisheries on the GBR: • Fisheries management on the GBR is held to the highest level, with both the Reef Authority and UNESCO setting a clear expectation of no overfishing occurs in the GBRMP. • Maintaining higher standards is critical to protecting the reef's outstanding universal value and ensuring the sustainability of fisheries within a World Heritage Area
Alternatives to Proposal 4	Several alternative approaches to increase the TACC were suggested, including: • Waiting a few years for move recovery before making changes to the management of the fishery • Make smaller changes than those proposed • Making a 30% shift in TACC increase rather than 50% increase • Staggered implementation of increasing TACC coupled with annual assessments to review and monitor progress • Suggestions that the TACC be increased to 300 t – 500 t • Improve security of access to quota
Additional analysis and modelling	Many suggestions for additional analysis were expressed: • Publishing modelling of how the 250 t TACC proposal was determined • Publishing modelling of how catch shares would be returned to formal levels in the harvest strategy (60% commercial to 40% recreational) • Review the 2025 assessment to include the impact of green zones in the marine park.
Compliance and enforcement	Suggested areas for improved compliance and enforcement included: • Greater compliance targeting black marketing • A tagging system to reduce black marketing and under reporting

Issue	Feedback from stakeholders
Regulations for the recreational sector	Options for regulations for the recreational fishing sector: • Establish a recreational fishing licence and associated fee to capture accurate participation data • Mandatory catch reporting, expanded creel surveys, or electronic monitoring to capture more accurate catch and effort data • AIS tracking on all offshore boats visible only to Fisheries Queensland • Requiring single-use tags for Spanish mackerel to prevent upgrading and black marketing • Removing boat limits that can cause unintentionally infringements (i.e. spearfishes who fish independently in the water before returning to a boat)
Regulations for the charter sector or operators	Options for regulations for the charter fishing operator sector: • Consultation with the sector before making legislative arrangements • Restricting the number of charter fishing licences in Airlie region • Increasing the charter fishing personal in-possession limit to 2 for Spanish mackerel • Reintroducing the extended trip limits for Spanish mackerel • Applying the boat limit to charter fishing operations • Excluding charter fishing operations from seasonal closures
Regulations for the commercial sector	Options for regulations for the commercial fishing sector: • Reduced quota unit costs which are current 10-15% of the costs to catch 1 kilo of fish • Review of the quota system to restrict non-fishers from accessing quota • Streamline quota transfer mechanisms to facilitate re-entry for displaced fishers • Penalties for persons or organisations that acquire commercial quota without the intent to use it • Distribution of any quota allocation be applied retrospectively to fishers who have already used, or leased quota. • Improve security of access to quota
Additional research and monitoring	Areas for additional research and monitoring identified by stakeholders included: • Independent review of seasonal closures to determine biological, economic and social sustainability needs and impacts of different closure options • Further research and monitoring of depredation rates as reported sector depredation rates do not match expectations or that anecdotally reported • A need to determine fisher behaviours that minimise and mitigate depredation rates • Adaptive management of climate impact on fish distribution, etc. • Communicate the outcomes of the FRDC research project into Spanish mackerel
Communication	Areas where communication could be improved included: • Fish handling techniques to improve post release survival rates • Social media posts (easily misinterpreted) • More simplistic expression of rules that govern boat limits and individual possession limits • How sector allocation means recreational in-possession limits cannot increase at this time • The cumulative impacts of recreational fishing sector harvest compared to commercial harvest • Trust in the data, assessments, and / or the government. • The ongoing research and previous research output around understanding, minimising and mitigating depredation

Issue	Feedback from stakeholders
Compensation and recognition	Some respondents suggested or requested: • Departmental recognition of the impacts of the previous management arrangements • Compensation for parties affected by the previous management arrangements • That compensation may be payable to the commercial fishing sector due to sector catch shares not being maintained
Catch share arrangements	Respondents identified the following catch share arrangement concerns: • Realignment of formal catch shares in the harvest strategy based on sector economic value to the community • Modelling on how sector catch shares would be realigned to the harvest strategy values • Suggestions that the TACC be increased to 300 – 500t
Tagging Spanish mackerel	Introduction of tagging to support enforcement: • For the recreational fishing sector to enforce possession limits and reduce upgrading • On board commercial operations to reduce under reporting.
Legislation	Options for legislative changes and considerations included: • Increase the minimum size limit on Spanish mackerel to 800 - 1200mm • Changing the seasonal closures to area closures • Overhaul on legislation in consideration of fishers' increased access to improving technology • More careful assessment of economic impacts of regulatory changes that affect many regional businesses, to avoid disproportionate harm. • Improved alignment with other jurisdictions for shared stocks • Fairer rules across all sectors (traditional, commercial and recreational)
Other fisheries management consideration	• Allow the take of more sharks recreationally, • Greater juvenile fish and trophic protection from trawlers • Concern the proposed reduction in MEY proxy from 60% to 48% may be used as a precedent for management of other fisheries

Next steps

Feedback from this consultation will be considered by the Queensland Government in the finalisation of the *Amended East coast Spanish mackerel fishery harvest strategy 2023-2028*. This feedback may also be used to help guide future decision-making for this fishery and ensure that ecological, economic and social objectives are achieved in the long term.