
East coast Spanish mackerel fishery harvest strategy and management changes discussion paper

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The Department of Primary Industries proudly acknowledges Aboriginal people and Torres Strait Islander people as the Traditional Custodians of the Country. We recognise their continuing connection to land, sea, waters and sky. We pay our respect to them, their cultures and to their Elders past and present and commit to ongoing reconciliation.

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Have your say

The Queensland Government is seeking community feedback on proposed amendments to the harvest strategy and management of the east coast Spanish mackerel (*Scomberomorus commerson*) fishery in Queensland.

The fastest and easiest way to provide your feedback is to complete the online survey on our [engagement hub](#).

The survey questions are also available at the end of this document if you would prefer to print the survey and post your submission to:

Spanish mackerel fishery discussion paper
Department of Primary Industries
GPO Box 46
Brisbane Qld 4001

Submissions close 5 pm, Wednesday 8 October 2025.

NOTE: The survey questions are designed to seek your input – they are not a voting tool. Your feedback will be used to help develop options for fisheries management action and provide an insight into the preferences of all stakeholders.

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 depredation (fish taken by predators such as sharks before they can be landed)
- 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.

We acknowledged this uncertainty in contrast to the requirement to close the fishery and, following consultation with all stakeholders, implemented measured management changes in September 2022 as a precaution. To reduce future uncertainty, significant research investment was also initiated.

The management changes at that time included:

- closures to protect the spawning stock and reduce fishing pressure on aggregations
- a reduction in the total allowable catch for both commercial and recreational sectors through
 - reducing the total allowable commercial catch 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.

We worked cooperatively with the Fisheries Research and Development Corporation to undertake research focusing on fish 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%.

Using 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 (new young fish) when the spawning biomass is low), hyperstability in catch rates, and the migration patterns of Spanish mackerel to reduce past uncertainty.

About the fishery

The east coast Spanish mackerel fishery is a line-only commercial fishery that typically targets Spanish mackerel by trolling or towing lures and baited lines behind the vessel and near the surface of the water. Since the implementation of management arrangements in 2004, commercial fishers are required to hold a commercial line symbol (L1, L2, L3 or L8), Spanish mackerel fishery symbol (SM) and individual transferrable quota to harvest the species. This fishery supplies markets locally and domestically, with no approval to export overseas.

Spanish mackerel are also a highly popular target species for recreational and charter fishers who employ a diverse range of line fishing methods, such as bait fishing, use of surface lures, jigging and trolling. They are also a popular target species for recreational spearfishers, with the popularity in this method increasing during recent decades.

The fishery also includes a traditional fishing sector. This sector is understood to have comparatively low levels of effort, with fishing activities aligning closely with the recreational fishing sector.

Spanish mackerel also migrates to, and is fished in, New South Wales where approximately 78 t is harvested each year. The harvest in NSW represents 10%–12% of the total harvest of this stock.

Biology

Spanish mackerel grow and mature quickly for their relative size. Minimum length at sexual maturity for female Spanish mackerel on the Queensland east coast is 79 cm fork length (equivalent to 89 cm total length) and is reached between 2 and 4 years of age. They become legal size at approximately 2 years of age and are known to reach 26 years of age. Females typically grow to a larger size than males, with the majority of this species mature by ~5.5 years of age and 115–120 cm in length.

Spanish mackerel form large spawning aggregations around reefs off North Queensland each year between September and December. These aggregations contribute substantially to the stock's overall reproduction level and have historically accounted for up to 40% of the total commercial harvest. Spanish mackerel also aggregate throughout the year when feeding and migrating.

Historical harvest

Commercial catch declined following the rezoning of the Great Barrier Reef Marine Park and introduction of a total allowable commercial catch (TACC) in 2004. Since then, commercial harvest has remained stable at about 300 t per year (Figure 1). On average, approximately half of the TACC was caught each year until management measures were implemented from 1 July 2023. In 2023–24 and 2024–25 the commercial harvest was 139 t and 130 t respectively.

Recreational harvest has also remained relatively stable since 2004 at around 180 tonnes each year (including charter). However, charter harvest has steadily declined since 2009 and remains low, possibly (in part) reflecting the recent impacts of COVID-19. These figures do not include the impacts of depredation. More than a quarter of recreationally caught Spanish mackerel are released, of which around 33% are likely subject to post-release mortality (Mitchell et al in prep).

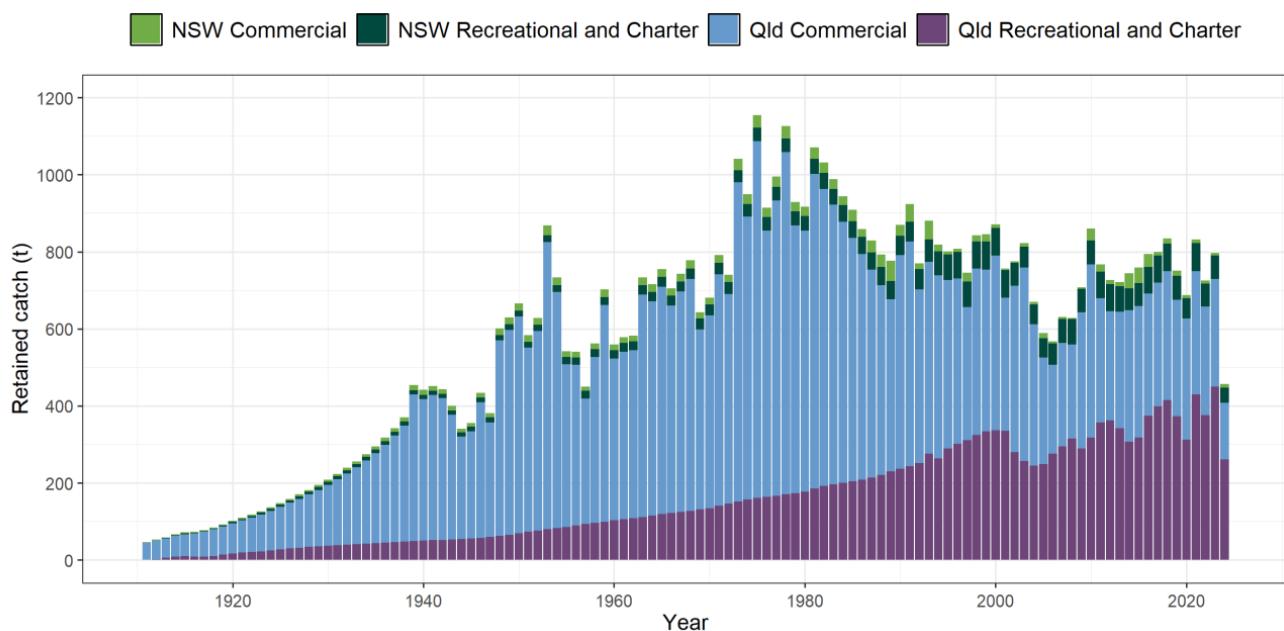


Figure 1: Estimated Spanish mackerel catch between 1911 and 2024 on the Australian east coast
(Source: Sumpter et al. 2025)

Current management arrangements

Under the *Fisheries Act 1994*, the fishery is currently managed via a mixture of input controls, which limit the amount and type of fishing effort applied. These input controls are complemented by output controls that directly limit the amount of fish that should be harvested (Table 1).

Table 1: Overview of current management arrangements for the east coast Spanish mackerel fishery

Sector	Input controls	Output controls
All	<ul style="list-style-type: none">• Gear restrictions (e.g. 3 lines with a maximum of 6 hooks per person)• 2 x 3 weeks seasonal closures north of 22°S• 2 x 3 weeks seasonal closures south of 22°S	<ul style="list-style-type: none">• Minimum legal size (75 cm)
Commercial	<ul style="list-style-type: none">• Limited entry• Vessel and tender restrictions	<ul style="list-style-type: none">• 165 t TACC• Individual transferable quota
Recreational (incl. charter)	<ul style="list-style-type: none">• As applied to all sectors	<ul style="list-style-type: none">• Possession limits• Boat limits (primarily to address black-marketing of priority species)
Traditional	Limited to fishing for purposes of satisfying personal, domestic or non-commercial needs, carried out by Aboriginal peoples and Torres Strait Islander peoples in accordance with traditional laws and customs.	

Latest stock assessment

The [2025 stock assessment](#) estimated that the east coast Spanish mackerel stock was at 34% of unfished levels (17% and 62%) (Figure 2).

The assessment also highlighted the importance of recruitment in driving population, as can be observed in the biomass increase between 2004 and 2015 (Figure 2). 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.

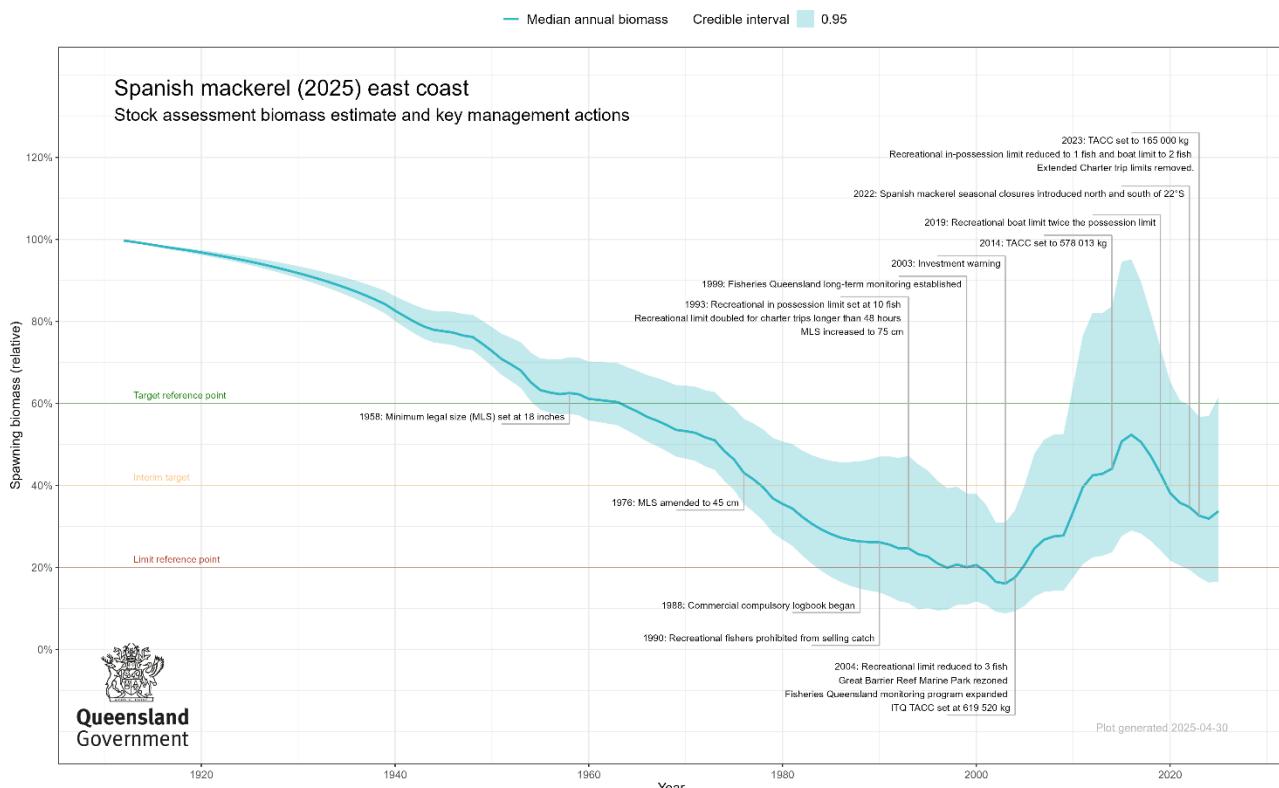


Figure 2: Australian east coast 2025 stock assessment biomass estimates and key historical management changes for Spanish mackerel

NOTE: To view a magnified version of the Figure 2 graph, visit dpi.qld.gov.au.

Proposed harvest strategy changes and management arrangements

All fishing sectors have a shared responsibility to manage this stock. This means an equitable approach that manages fishing pressure from all sectors is required for successful stock rebuilding. The best available science published in the 2025 stock assessment recognised 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%). This falls outside the agreed sectoral catch share allocation of 60% commercial and 40% recreational, established under the current harvest strategy.

Given the new information and recent shift in catch shares in the stock assessment, we have identified an opportunity to update management arrangements in order to provide greater access to the stock and rebalance catch shares as required. To achieve this, the following management arrangements are proposed:

- Amend the target reference point of the harvest strategy from 60% to 48% unfished biomass to optimise the harvest of this stock while ensuring a sustainable future fishery.
- Increase the commercial TACC from 165 t to 250 t to align with the established catch share.
- Maintain the current recreational possession limit of one fish per person and increase the recreational boat limit from 2 fish with 2 or more fishers on board to 4 fish with 4 or more fishers on board (without further impacting sector catch shares significantly).
- Continue the current seasonal closures to protect spawning, aggregating and migrating stocks.

The 75cm minimum size limit, seasonal closures, charter fishing trip limits and the 1 fish per person recreational bag limits would remain the same as they currently are.

These management proposals have been supported by the independent Sustainable Fisheries Expert Panel. The proposals are informed by the 2025 stock assessment and in line with recent management actions, the need to drive improved economic viability and maintaining access for all sectors within a harvest strategy framework.

PROPOSAL: In line with the 2025 stock assessment that has demonstrated stock recovery since the harvest strategy was developed, **amend the harvest strategy 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.

Table 2: Management proposal summary

Control	Past (2019–2022)	Present (2022–2025)	Proposal (2025 onwards)
Commercial TACC	578 t	165 t	250 t
Recreational possession limit (per person)	3 fish	1 fish	1 fish
Recreational boat limit	6 fish	2 fish	4 fish
Sectoral catch shares (commercial:recreational)	60:40	36:64	60:40
Seasonal closures	-	2 x 3-week closures north of 22°S (around the new moon in Oct–Dec) and 2 x 3-week closures south of 22°S (commencing 1 Feb and 1 Mar)	2 x 3-week closures north of 22°S (around the new moon in Oct–Dec) and 2 x 3-week closures south of 22°S (commencing 1 Feb and 1 March)

Target reference point

Under the current harvest strategy, the main objective is to rebuild the stock to an interim rebuilding target reference point of 40% biomass within ~14 years, then to continue to rebuild toward the target reference point of 60% unfished biomass. The target reference point of 60% is used as a proxy for the fishery's maximum economic yield (MEY), as outlined in the *Queensland harvest strategy policy* (June 2021).

A current review of the *National harvest strategy guidelines* (version 2, in prep) identifies an estimated level for maximum economic yield as 48% unfished biomass. Compared to the 60% target reference point in the current harvest strategy, a 48% target reference point would provide greater access to the stock while still allowing stocks to remain sustainable long term.

PROPOSAL: Amend the harvest strategy target reference point to 48% of unfished biomass.

With the recent stock assessment estimating 34% of unfished biomass, the key objective of the proposed amended harvest strategy is to reach 48% target reference point. Amending the target reference point to 48% would also require the removal of the 40% interim rebuilding target reference point and changes to the harvest strategy decision rules. The proposed harvest strategy amendments are outlined in the *Amended east coast Spanish mackerel harvest strategy: 2023–2028 – Proposed amendments* in the 'Document library' on our [engagement hub](#).

Total allowable commercial catch

Quotas are used in commercial fisheries across Australia to manage the sustainability of fish stocks and provide equity of access to the public resource. The individual transferable quota system in particular allows this equity by providing fishers the opportunity to plan their activities, minimise their operational costs and improve profitability. A quota unit is not a fixed weight of fish – it is a fixed percentage of access.

Each commercial fisher owns or leases a number of these units in the fishery, which can be traded permanently or for a mutually agreed period between individuals. These quota units are a percentage of the TACC for that fishery. The TACC is the total catch limit for the commercial sector in a fishery and does not include fish caught by recreational, charter or traditional fishers. The TACC can be lowered or raised in response to changes in a stock's biomass and is the most direct method to control commercial harvest levels.

The current TACC for east coast Spanish mackerel is 165 t.

PROPOSAL: Increase the TACC to 250 t to provide for greater access to the stock.

Recreational possession and boat limits

Recreational possession limits are a direct control on recreational harvest and are used to:

- conserve species that are sought-after or easily caught
- ensure everyone has the opportunity for a good fishing experience
- reduce black-marketing
- promote responsible fishing.

Possession limits do not apply on a per-day basis, meaning that any fish caught previously but still in your possession (e.g. at home in the freezer) are included in the possession limit.

Boat limits are in effect for 9 priority black-market species – mud crab, prawns, snapper, black jewfish, barramundi, Spanish mackerel, shark, tropical rock lobster and sea cucumber. Boat limits may help to reduce the overall recreational harvest, however their primary purpose is to combat black-marketing by preventing commercial quantities being taken on a recreational fishing trip. Boat limits do not apply to licensed charter fishing trips.

PROPOSAL: Increase the boat limit from 2 fish with 2 or more people on board to 4 fish with 4 or more people on onboard.

The individual possession limit for Spanish mackerel would remain as one fish per person, so 3 people fishing on a boat could take home 3 fish, 4 people fishing on a boat could take home 4 fish, but 5 or more people fishing on a boat could only take home 4 fish.

Seasonal closures

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. Spanish mackerel are also thought to aggregate throughout the year when feeding and migrating.

Historically, approximately 40% of the total Queensland commercial harvest was taken from the Lucinda region each year during the spawning season.

Seasonal closures for Spanish mackerel were introduced from October 2022:

- 2 x 3-week closures in October to December around the new moon north of 22°S, commencing in line with the reef line fishery closures
- 2 x 3-week closures, 1–21 February and 1–21 March inclusive, each year south of 22°S to reduce fishing effort in the south during migrations.

The [explanatory note](#) outlining the reasons for introducing these closures documented the following concerns, which are still valid:

- a 70 per cent reduction in the number of Spanish mackerel spawning aggregations in the east coast within two decades
- a decline in historically important spawning aggregations from waters east of Cairns; and
- a reduction in the size and frequency of spawning aggregations in the Lucinda region.

PROPOSAL: Continue the current seasonal closures. Feedback is sought on how these closures could be improved to protect aggregations.

Consultation to date

On 2 June 2025, we consulted with the east coast [Spanish mackerel fishery working group](#). The recreational fishing, conservation and Great Barrier Reef Marine Park Authority members identified a desire to wait until stocks recovered to the 40% interim rebuilding target reference point before making any management changes, while the charter and commercial sectors wished to see increased access to the stock now to regain business viability for those fishing this stock.

The 2025 stock assessment and the proposed management changes were presented to the independent [Sustainable Fisheries Expert Panel](#) on 15 July 2025. The panel commented that the biology of Spanish mackerel make them amenable to increased stock recovery rates, with ability to absorb greater harvest and suitable for a lower target reference point (48% rather than 60% unfished biomass level). The panel also supported an increase to the commercial catch and recreational boat limit, noting that seasonal closures would remain under the proposal and further consultation would occur with Traditional Owners.

We met with the Cape York Special Fisheries Working Group on 19 August 2025 and members noted difficulties in accessing Spanish mackerel quota both for Indigenous fishing permit holders and for new and established First Nations commercial fishers. The harvest strategy currently allocates a small quantity of harvest available for Indigenous fishing permit holders by application to trial commercial fishing.

Next steps

Feedback from this consultation will inform management arrangements and harvest strategy amendments to set the future harvest of the fishery.

Survey questions

Your say matters and we want to hear from you about your views on the management measures. The questions with an asterisk (*) are mandatory.

The Department of Primary Industries is collecting the information on this form to inform amendments to the harvest strategy and management of the east coast Spanish mackerel fishery in Queensland.

Your personal information will not be disclosed to any other parties unless authorised or required by law.

Question 1. Your information:

Name: _____

Address: _____

Postcode*: _____

Email address: _____

Question 2. What sector best describes your interest in the fishery?* *(Please select all categories that apply to you)*

- Commercial fisher
- Seafood wholesaler/marketer
- Industry peak body *(Please specify _____)*
- Conservation sector
- Recreational fisher
- Charter fishing operator
- Traditional fisher/Traditional Owner
- Hospitality (restaurant, café, fish and chip shop) owner/worker
- Fishing tackle retailer
- Interested community member
- Other *(Please specify _____)*

Question 3. 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'?

Yes
 No

Comments

Question 4. Do you support the proposal to amend the east coast Spanish mackerel harvest strategy target reference point from 60% of unfished biomass to 48%?

Yes
 No

Comments

Question 5. Do you support the proposal to amend the harvest strategy objective to remove the interim rebuilding limit reference point (B_{40}) of 40%

Yes
 No

Comments

Question 6. Do you agree with the proposal to increase the total allowable commercial catch from 165 tonnes to 250 tonnes?

Yes
 No

Comments

Question 7. 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?

Yes
 No

Comments

Question 8. Do you agree with setting the 2 x 3-week closures north of 22°S around the new moon in October to December?

Yes
 No (*Please provide any suggestions for improving the timing of the closures below*)

Comments

Question 9. 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?

Yes
 No (*Please provide any suggestions for improving the timing of the closures below*)

Comments

Question 10. Are there any other issues, opportunities or solutions that you would like to raise?
