

13 July 2026

Meg Brown MP
Chair
Standing Committee on Government Administration B
Parliament House
Hobart TAS 7000

By email: sandflathead@parliament.tas.gov.au

Dear Ms Brown,

Questions on notice — short inquiry into the closure of the sand flathead fishery in south-east Tasmania

Thank you for your letter of 2 July 2026 following my appearance before the Committee at the public hearing on 10 June 2026. I am pleased to provide the following responses to the three questions on notice, together with the supporting material referred to below.

Question 1 — Written advice to the Minister or the Department on management options

To the best of my knowledge, IMAS did not provide direct advice to the Minister for Primary Industries and Water regarding a closure of the sand flathead fishery. However, in 2023, in response to a request from the Department of Natural Resources and Environment Tasmania, I provided written scientific advice to the then General Manager – Marine Resources on a range of management scenarios to aid the recovery of Sand Flathead stocks that had been assessed as depleted. That advice is enclosed (Attachment 1). It sets out advice across a range of management levers including catch limits, minimum and slot size limits, boat limits and a regionally stratified management approach. Each directed at reducing fishing mortality and recovering biomass. I am content for this letter to be published on the inquiry website.

Question 2 — Whether bag limits were a subject of that advice

Yes. Bag limits were a central subject of the 2023 advice. As set out in Attachment 1, the advice was that a significant reduction in fishing mortality would rely primarily on reduced bag limits, and it included region-specific bag limit and slot limit recommendations. I refer the Committee to the enclosed letter for the detail.

Question 3 — IMAS's target amount of SMRCA funding versus the amount received

To assist the Committee with this question, I have prepared a draft business case on funding for the Sustainable Marine Research Collaboration Agreement (SMRCA) (Attachment 2).

I would ask, however, that this document be treated as confidential and not published on the inquiry website or other public fora at this stage. Given the timeframe to respond to the Committee, I compiled this analysis in my capacity as Director of the SMRCA. It has not yet been considered more broadly by the Sustainable Marine Research Advisory Committee or the IMAS Board, and further due

diligence and a greater depth of analysis are required to formalise its content before it would be appropriate for public release. I nonetheless thank the Committee for the opportunity to present it; the analysis reflects the significant value of the SMRCA to marine resource and environmental management in Tasmania.

For completeness, I note the Committee's acknowledgement that the Fisheries Research and Development Corporation report and peer-review summary have already been provided.

I would be happy to provide any further information the Committee may require.

Yours sincerely,

Prof. Sean Tracey

Interim Co-Executive Director, Institute for Marine and Antarctic Studies
Director, Sustainable Marine Research Collaboration Agreement

Enclosures

Attachment 1 — IMAS letter to the General Manager – Marine Resources, DNRE Tasmania, dated 1 March 2023: scientific advice on Sand Flathead management scenarios (for publication)

Attachment 2 — Draft business case: Restoring Government funding for the SMRCA (confidential — not for publication or distribution)

1 March 2023

Dr Ian Dutton
General Manager – Marine Resources
Department of Natural Resources and Environment Tasmania
GPO Box 44
Hobart TAS 7001
Australia

Dear Ian,

I am writing in response to your letter dated 23rd February 2023 requesting scientific advice on a range of management scenarios to aid the recovery of the Sand Flathead (*Platycephalus bassensis*) stocks in Tasmania that were reported as 'depleted' in the Tasmanian Scalefish Fishery Assessment 2020/21 (Fraser et. al., 2022). I have attached the rationale for applying a 'depleted' status to Sand Flathead.

The rationale for assessing the Tasmanian Sand Flathead population as 'depleted' was based on three key factors:

- **Unsustainably high fishing mortality ($> 2 \times$ natural mortality)**
- **Population biomass below critical levels ($< 20\%$)**
- **Spawning potential below sustainable limits (< 0.2)**

These factors are further explained in the attachment.

As such there is an **urgent need to increase the biomass above 20% of the estimated unfished biomass** and then manage the fishery towards a target of at least 40% of unfished biomass.

This species is predominantly harvested by the recreational fishery ($\sim 98\%$) and, as such, economic considerations are different to those that would factor into management of a species with a greater proportion of commercial harvest.

IMAS (and its precursors) have been conducting recreational fishing surveys for over 20 years that clearly show the benefit and values from recreational fisheries relate not only to the harvest of fish for consumption, but also to the quality of the fishing experience. Importantly, a high-quality recreational fishing experience is not just related to the catch, but satisfaction from time spent with friends and family in nature. These factors highlight that a recreationally dominated fishery is likely to have greater resilience to experiencing short term losses of benefits if these losses produce benefits over the long term. It is also known that recreational fishers do not experience high satisfaction levels when fish stocks are in a poor condition.

Therefore, it is suggested that applying a management strategy that aims to recover biomass to at least 40% of unfished levels in the medium term (i.e., 4 - 6 years) rather than longer term (i.e., > 6 years).

A longer-term solution may also exacerbate the recently identified issue of changing growth characteristics in some regions (particularly the south & Georges Bay) which promotes the survival of older fish with slower growth characteristics and smaller maximum sizes (i.e. phenotypic population stunting as a result of fishing-induced evolution). This phenomenon not only risks

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significant impairment of Sand Flathead stock recovery but also risks altering the functioning of the ecosystems this species inhabits.

To recover the biomass to above 20% and above a target of at least 40% **will require a significant reduction in fishing mortality**. We suggest that a significant reduction in catch would rely primarily on reduced bag limits. The multiple model assessment approach applied suggests that **this bag limit would need to be less than two fish per person per day, particularly in southeast Tasmania where stocks are most overfished**. Furthermore, there is a need to provide greater protection for larger, female fish which are now almost absent from most southeast regions in the state, with evidence of phenotypic alterations to the populations as described above.

In your request you have asked for, at point 1, the probabilities of specific scenarios reaching different biomass levels in given time frames. Unfortunately, at this stage, it is not possible to provide this level of detailed quantitative information. Our modelling team are progressing rapidly to advance assessment capacity for Sand Flathead but, at this stage, the models are equilibrium based and do not provide temporal projections.

As such, the advice below is based on best scientific information from the available models, the known biological and ecological traits of the species, and consensus discussions amongst several of our scientists who work on fisheries biology and population dynamics. At this stage however, our advice is based partly on qualitative assessments and provided in line with 'a precautionary approach' to achieve what would be expected to produce a recovery to at least 40% in the medium term (four to six years, as per your letter). The strategy is designed to rapidly see a recovery trajectory that can then be integrated into our models to assess the effectiveness of the strategy. At this point a review period where management changes can be altered based on predictive modeling would be prudent.

It is also important to note that with the rapid development of new models, and as additional data is gathered, that the scientific advice can change.

Advice to the scenarios as presented in point 2 of your letter are outlined below. Further to this it is advised on a holistic strategy for recovery using an ensemble of traditional fisheries management levers, a stewardship, engagement and education program, and a feasibility assessment of re-stocking.

The advice is based on a priority of recovering the stock and secondarily minimising the impact to the fishery based on the assumption that **a rapid recovery will provide greater satisfaction to the values of the recreational sector in the short to medium term**.

A critical component of the strategy is ongoing fishery independent monitoring, ongoing fishery dependent monitoring through frame collection, continuing development of predictive models and periodic review of the effects of management with a precursive intention to relax measures once targets are achieved, or at least the trajectory to recovery can be assessed.

Our general response to your scenarios are:

- **Closing the fishery** – maximises the chances of recovery in a shorter period; however, will impact more on fishers. There would still be a need for significant management change upon reopening of the fishery, such as reduced bag limits and adjusted size limits.
- **Maintaining status quo (i.e., size limit 32 cm, bag limit 20 statewide)** – the biomass will continue to decline and diminish the value of the stock to the recreational sector (i.e., there will be very few fish available for fishers to retain above the size limit). Inaction risks the long-term

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availability of this species. Long-term depletion also creates significant risks to ecosystem health, by impacting the important ecosystem roles of Sand Flathead as predators and prey.

- **Bag limits cut to 4, 5 or 8 depending on region** – Current modelling suggests that the bag limits scenarios of 5 statewide or regional limits of 4 in the south/southeast and 8 in the north will not be sufficient to reduce fishing mortality to allow biomass recovery or continued phenotypic change. It is recommended, however, a bag limit of 5 on the east and north coast in combination with other management measures in our advice below, although there are some local areas of concern such as Georges Bay that a bag limit of 5 may impair local stock biomass recovery.
- **Increasing size minimum size limit to 35 cm** – Modelling suggests that by increasing the minimum size limit (MLS) to 35 cm would protect a significant increase in spawning stock biomass of fast-growing fish, but without a significant reduction in bag limit further phenotypic change is still likely.
- **Maximum size limits of 36 or 40 cm depending on scenario** – A maximum size limit needs to be of a sufficiently low size to provide adequate protection. Current data suggests that a maximum size limit over 40 cm will be grossly ineffective in the south, as most fish are harvested by the fishery before being able to grow to be protected by this measure (see attachment). A maximum size limit of 40 cm, in combination with other significant management measures, will provide some protection to fish of a larger size on the east and north coasts in the immediate term. Importantly, however, maximum size limits will be a critical component of the longer-term recovery and management of the fishery. As a greater proportion of fish grow larger due to other management restrictions, a maximum size limit will be necessary to protect them to avoid repeating the significant absence of larger fish, which is the reason for the current depleted biomass status.
- **Boat limits** – If bag limits are set correctly, boat limits are not required. However, given that modeling suggests that current fishing mortality is greatly above the level required to allow for biomass recovery, a boat limit would provide additional protection and may be worth considering against the strategy of a rapid return to greater than 20% of unfished biomass and a medium-term return to 40% of unfished biomass. The proposed boat limits (three times the bag limit) will only effect boats that take more than 3 fishers, but it is worth noting that this is a common for charter operators.
- **Particular advice for the D'Entrecasteaux Channel, Fredrick Henry Bay and Norfolk Bay** – These three areas are the most impacted by overfishing. The management measures proposed below take these areas into account in the regional stratification.

It will be important that whichever scenario is implemented, that it will require a combination of both catch limits and size limits to be effective.

Current scientific advice suggest the following:

- A level of regionality to the management approach. Two regions on mainland Tasmania be considered and that King Island and the Furneaux group of islands be considered separately.
 - South (Cape Pillar to Whale Head)
 - Rest of mainland Tasmania
 - King Island and the Furneaux Island group
- For the South:

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- a slot limit of 35 – 38 cm, bag limit of 2 boat limit of 6
- For the rest of mainland Tasmania:
 - a slot limit of 35 – 40 cm, bag limit of 5 and boat limit of 15
- For King Island and the Furneaux Island group:
 - a minimum size limit of 40 cm and a bag limit of 5, no boat limit (as a secondary benefit to population protection, this will align with current size limit regulations for blue spot and rock flathead.

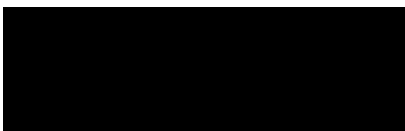
It is emphasized the importance of implementing management settings that significantly reduce fishing mortality to contain the risks of continued or permanent decline in stock status, growth characteristics and ecosystem stability.

The stock response will be tracked annually through the annual stock assessment process; however, it is recommended that a formal evaluation should be done after two and four years. During this time IMAS aim to develop a temporally explicit population simulation model to better evaluate and predict the recovery trajectory. Relaxation of measures could then be considered based on the stock recovery trajectory, assessed biomass, and assessed fishing mortality. Conversely, if a recovering trajectory towards 40% is not occurring, further refinements may be needed.

As you are aware, IMAS are currently preparing an FRDC funding application to support the evidence- based management to recover sand flathead populations. This will involve filling biological and ecological knowledge gaps required to inform the assessment models to ensure that decisions can be assessed and adjusted based on the best possible scientific information. It will also include an engagement and communications program (focusing on a collaborative approach between IMAS, DNRET and TARFish) and a feasibility assessment of stock enhancement. We look forward to progressing this application with DNRET and stakeholders in the near future.

I would also be more than happy to discuss with you and or your team the proposals outlined in this response.

Yours Sincerely,



Assoc. Prof. Sean Tracey

On behalf of

Drs Nils Krueck, Klaas Hartmann, Alyssa Marshell and James Haddy