Australian Government
Department of Climate Change, Energy, the Environment and Water

EC25-001859

To: Deputy Secretary, Environment Regulation and Heritage

RESPONSE TO UNESCO – MACQUARIE HARBOUR, TASMANIAN WILDERNESS

Timing: ASAP to respond to UNESCO World Heritage Centre ahead of 47COM

Recommendation:

1. That you sign the draft letter to Mr Lazare Eloundou Assomo, Director of the World Heritage Centre, at **Attachment A**.

Signed / Not signed

Signed: Date:

Comments:

Clearing Officer: Sent 27/06/2025	Ranga Parimala	World and National Heritage Branch	Ph: s. 22(1)(a)(ii)
Contact Officer:	s. 22(1)(a)(ii)	Director, Natural and First Nations Heritage Section]	Ph: s. 22(1)(a)(ii)

Key Points:

1. The Director of the UNESCO World Heritage Centre, Mr Lazare Eloundou Assomo, has twice provided Australia with third party correspondence which expresses concern for the Outstanding Universal Value (OUV) of the Tasmanian Wilderness World Heritage Area (TWWHA) (see 2024 correspondence **Attachments B-D** and 2025 correspondence **Attachment E**). On both occasions, Mr Eloundou Assomo requested that Australia provide feedback on the issue.

2. The third-party concerns stem from the presence of marine finfish farming operations in Macquarie Harbour and the potential impact of these operations on the listed threatened Maugean Skate, an attribute of the property's OUV.

   a. The 2025 third party correspondence requests that IUCN and UNESCO *jointly recommend to the World Heritage Committee, for consideration at its 47th session, that a Reactive Monitoring Mission is sent to the Tasmanian Wilderness in the second half of 2025 to: (a) Examine the impact of marine farming operations in Macquarie Harbour on the*

Outstanding Universal Value of the property; and (b) Any other relevant matters in relation to the TWWHA.

3. Australia is required to respond to UNESCO World Heritage Centre requests for information.

    a. An interim response was sent to the World Heritage Centre in July 2024 (**Attachment F**).

- The attached comprehensive response (**Attachment A**) has been prepared in collaboration with the International Environment, Reef and Ocean Division and with the Department of Natural Resources and Environment Tasmania, as well as the independent Tasmanian Environment Protection Agency. It outlines how Tasmania's regulatory framework for marine finfish farming has adapted since 2012 to respond to concerns related to water quality in Macquarie Harbour. It also details Australian and Tasmanian government funding of over $40 million for Maugean skate conservation actions.

Sensitivities and Handling

4. International Environment, Reef, and Ocean Division (IEROD) have reviewed the Tasmanian Government's input in relation to the University of Tasmania's Institute of Marine and Antarctic Studies most recent report on the population status of the Maugean Skate (released on 15 February 2025).

    a. Noting that the Threatened Species Scientific Committee advice on the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) threatened species listing assessment for the Maugean skate is due to be provided to the Minister by 30 October 2025, IEROD consider that a definitive statement on the Maugean Skate population status in Macquarie Harbour is not yet possible.

5. The *Environment Protection and Biodiversity Conservation Amendment (Reconsiderations) Act 2025* commenced on 28 March 2025. The amendment Act removed the ability of the Minister for the Environment and Water to overturn certain past decisions as part of a reconsideration process, in limited circumstances.

    a. The response to UNESCO acknowledges that the Minister for the Environment and Water has not at this time made a reconsideration decision in relation to the 2012 decision that the Marine Farming Expansion, Macquarie Harbour, Tasmania (EPBC 2012/6406) was not a controlled action if undertaken in a particular manner under the EPBC Act.

    b. The response notes the Minister will make a decision as soon as practicable, and in a manner that accords with the legal requirements under the EPBC Act. This includes affording procedural fairness to the relevant entities and consulting with them on the application of the new amendment to the EPBC Act. This is important to ensure that the Minister's decision is informed by the views of the relevant entities.

Data referenced:

6. References are cited within the letter.

Consultation: YES

- Deidre Wilson A/Chief Operations Officer Department of Natural Resources and Environment Tasmania
- Belinda Jago, Branch Head, Ocean and Wildlife Branch, International Environment, Reef and Ocean Division
- Rachel Short, Branch Head, Environment Assessments (Vic and Tas) and Post Approvals Branch

Attachments

A: Letter for signature
B: 2024 letter from UNESCO
C: 2024 Third Party correspondence (signed by The Australia Institute Tasmania, on behalf of several organisations)
D: 2024 Third Party correspondence (signed by Co-Chairs of the Tasmanian Independent Science Council)
E: 2025 letter from UNESCO, with Third Party correspondence signed by The Australia Institute Tasmania, on behalf of several organisations)
F: Interim response to UNESCO – July 2024

Australian Government
Department of Climate Change, Energy, the Environment and Water

Mr Lazare Eloundou Assomo
Director
World Heritage Centre
UNESCO
7, Place de Fontenoy
75352 PARIS CEDEX07
FRANCE

Dear Mr Eloundou Assomo

Thank you for your letter of 5 March 2025, enclosing third party correspondence received by the UNESCO World Heritage Centre in relation to the potential impacts to the Maugean skate from marine finfish farming operations in Macquarie Harbour. I note that this third party correspondence is related to correspondence forwarded to Australia by UNESCO in April 2024. We appreciate your attention to this matter.

The Australian and Tasmanian governments remain committed to the conservation of the Maugean skate, which is an attribute of the World Heritage values of the Tasmanian Wilderness. A National Recovery Team for the Maugean skate has been jointly established. The Recovery Team includes representation from all stakeholder groups with a significant interest, or relevant technical expertise, in Maugean skate conservation planning. It provides expertise in environmental remediation, and in addressing potential impacts.

Using guidance from the Commonwealth Threatened Species Scientific Committee, as outlined in the approved *Maugean skate Conservation Advice*[1], as well as the Tasmanian Government's *Maugean Skate Conservation Action Plan*[2], the Recovery Team developed a *Roadmap of Agreed Actions*[3] which prioritises key research and conservation management actions for recovery of the species, many of which are currently underway.

Australian Government funding for Maugean skate conservation actions has now reached approximately $39.9 million. Recent funding (totalling $37.5 million since June 2022) is delivering reoxygenation efforts in Macquarie Harbour, assessments of the status of the Maugean skate population, compliance activities, community engagement, and support of a captive management program to safeguard the species, while habitat remediation activities are undertaken.

The Tasmanian Government has committed $5.13 million since 2014, including $2.15 million in the past two years, to support the Maugean skate captive management program, as well as population monitoring by the University of Tasmania's Institute of Marine and Antarctic Studies (IMAS) and extensive oxygen monitoring undertaken by the Environment Protection Authority Tasmania (EPA).

[1] Conservation Advice for Zearaja maugeana (Maugean skate)
[2] Conservation Action Plan for the Maugean skate
[3] Maugean-Skate-Recovery-Team-Roadmap-of-Agreed-Actions_Feb-2024-compressed.pdf

The Maugean skate captive management program has realised the hatching of 130 juvenile skate since December 2023. Further research is planned to inform re-introduction of the skate to Macquarie Harbour.

The Commonwealth of Australia's *Environment Protection and Biodiversity Conservation Amendment (Reconsiderations) Act 2025* commenced on 28 March 2025. The amendment removed the ability of the Commonwealth of Australia's Minister for the Environment and Water to revoke certain past decisions as part of a reconsideration process, in limited circumstances.

The Minister for the Environment and Water has not at this time made a reconsideration decision in relation to the 2012 decision that the Marine Farming Expansion, Macquarie Harbour, Tasmania (EPBC 2012/6406) was not a controlled action if undertaken in a particular manner under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Minister will make a decision as soon as practicable, and in a manner that accords with the legal requirements under the EPBC Act. This includes affording procedural fairness to the relevant entities and consulting with them on the application of the new amendment to the EPBC Act. This is important to ensure that the Minister's decision is informed by the views of the relevant entities.

Marine finfish farming in Macquarie Harbour continues to be regulated by the Department of Natural Resources and Environment Tasmania and Tasmania's independent EPA. Importantly, marine finfish farming practices occur outside the boundary of the Tasmanian Wilderness World Heritage property. Tasmania's aquaculture industry is subject to robust legislative frameworks and regulatory structures, including Tasmania's Marine Farming Development Plans, environmental licensing, marine farming leases, licences and permits.

Tasmania's regulatory framework for marine finfish farming has adapted since 2012 to respond to concerns related to water quality in Macquarie Harbour insofar as they can be impacted by marine finfish farming. Specific recent actions include:

- Management controls imposed on marine finfish farming by the EPA since early 2017 which have resulted in a significant (approximately 50 percent) reduction in farmed salmonids within Macquarie Harbour, from the permissible peak standing biomass in 2014-15 at over 20,000 tonnes to 9,500 tonnes in 2020.
- Further controls from September 2022 have included a shift from a biomass cap to a limit on Total Permissible Dissolved Nitrogen Output as the mechanism to cap the amount of nitrogen entering the aquatic environment. In November 2023, the EPA Director issued environmental licences that imposed additional conditions (including in relation to providing an overall dissolved oxygen demand for their activities, and a requirement to offset or reduce oxygen consumption through a Dissolved Oxygen Mitigation Plan), as well as ongoing water quality and benthic monitoring requirements.
- In February 2025 the Tasmanian EPA Director provisionally approved a Dissolved Oxygen Mitigation Plan and Water Quality Monitoring Plan, as required under the environmental licences for the 10 fish farming leases in Macquarie Harbour.

- In October 2023, statutory Environmental Standards for Tasmania Marine Finfish Farming under the Tasmanian *Environmental Management and Pollution Control Act 1994* came into effect. These standards set out the environmental management conditions that are being prescribed through environmental licences issued to marine finfish farmers, including the forthcoming benthic condition index which will provide a better assessment of seabed health around farms.

EPA monitoring of dissolved oxygen levels in the harbour indicate an upward trend and are within the range measured by the EPA from 1993 to 2010 at several locations.[4] Median dissolved oxygen levels across Macquarie Harbour are at their highest levels in more than a decade and higher than 2021.[5] Since January 2023 over 99 percent of seabed video surveys at 35 metre compliance sites, including those within the Tasmanian Wilderness World Heritage area are compliant with Environmental Licence Conditions. The suite of controls on marine finfish farming and favourable oceanic recharge events may have contributed to improvement in environmental conditions in Macquarie Harbour.

Another action taken by the Tasmania Government is the banning of recreational gillnetting in Macquarie Harbour from November 2024. This activity was identified as a threat to the species through entanglement. In addition, improved monitoring of water flow releases from the Gordon Dam hydro power station has been progressed to inform the impact to the halocline and oxygenation of the harbour.

Further, the University of Tasmania's Institute of Marine and Antarctic Studies has released a series of reports on its research into the Maugean skate population status. The final of these reports was released on 15 February 2025. This report indicates that there are signs of recovery of the species and the capture of juveniles in 2022, 2023 and 2024 indicating some recruitment success. The primary conclusion of the report is that the population appears to be recovering, and that more robust sampling is required.

As can be seen, the Australian Government is actively working with the Tasmanian Government to ensure that the Maugean skate as a *Matter of National Environmental Significance*, is being managed within the unique environmental conditions that exist in Macquarie Harbour, both inside and beyond the World Heritage Area, contributing to the Outstanding Universal Value of Tasmanian Wilderness being retained. If you require any additional information or clarification, please do not hesitate to contact me at australiaworldheritage@dcceew.gov.au.

Yours sincerely

Rachel Parry
Deputy Secretary
3 July 2025

[4] https://epa.tas.gov.au/news/dissolved-oxygen-levels-in-macquarie-harbour-highest-in-more-than-a-decade

[5] Macquarie Harbour - Status update for dissolved oxygen - September 2024

unesco

H.E. Ms Greer Alblas
Ambassador
Permanent Delegate of Australia to UNESCO
Ambassade de l'Australie
4, rue Jean-Rey
75724 Paris Cedex 15

23 April 2024

Culture Sector
World Heritage Centre

Ref: CLT/WHC/APA/HG/AN/24/43

Subject: State of conservation of the World Heritage property 'Tasmanian Wilderness World Heritage Area'

Dear Ambassador, Dear Greer,

Further to my letter dated 25 March 2024, the UNESCO World Heritage Centre has received another third-party information concerning the state of conservation of the World Heritage property 'Tasmanian Wilderness', notably on marine farming operations in Macquarie Harbour which could negatively impact the Outstanding Universal Value (OUV) of the property, including the endangered Maugean skate (*Zearaja maugeana*) listed as an attribute of the property's natural values in the *Tasmanian Wilderness World Heritage Area Management Plan 2016*.

We are forwarding you this information (Annexes) in accordance with Paragraph 174 of the *Operational Guidelines for the Implementation of the World Heritage Convention.* Feedback from your authorities will enable us to verify the content of the information that we have received; it will be shared, upon receipt, with the Advisory Bodies of the World Heritage Committee for their review. The World Heritage Centre looks forward to receiving your response as soon as possible, preferably within one month following the receipt of this letter.

Should you have any questions or require further information, please do not hesitate to contact my colleague Ms Himalchuli Gurung, Chief of Asia and the Pacific Unit (h.gurung@unesco.org).

Thanking you for your continuous collaboration and support in the implementation of the *World Heritage Convention*, I remain,

Warmest,

Yours sincerely,

Lazare Eloundou Assomo
Director

Enc.
cc: Australian National Commission for UNESCO
National Focal Point for World Heritage
UNESCO Office in Apia
IUCN, ICOMOS, ICCROM

The Australia Institute
Research that matters.
Tasmania

THE BOB BROWN FOUNDATION

NOFF
NEIGHBOURS OF FISH FARMING

HUMANE SOCIETY INTERNATIONAL
AUSTRALIA

Australian Marine Conservation Society

ENVIRONMENT TASMANIA

Attn: Guy Debonnet

4 April 2024

Committee Secretariat
World Heritage Committee
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By email only: G.Debonnet@unesco.org

Copy:
Katherine Zischka and Mathew Emslie-Smith, IUCN
The Hon Tanya Plibersek, MP, Australian Minister for Environment and Water
Roger Jaensch, MP, Tasmanian Minister for Environment and Climate Change
Jo Palmer, MP, Tasmanian Minister for Primary Industries and Water
The Hon Ted Baillieu AO, Chair, Australian Heritage Council

Dear Mr Debonnet,

Threat to heritage value of the Tasmanian Wilderness World Heritage Area

1. We write to draw your attention to an urgent threat to the heritage value of the Tasmanian Wilderness World Heritage Area (**TWWHA**).

2. Marine farming operations in Macquarie Harbour pose an urgent and ongoing threat to the endangered Maugean skate, a species of recognised world heritage value.

3. We request the assistance of UNESCO and the IUCN to intervene, to protect the Maugean skate and ensure the heritage value of the TWWHA is preserved.

Background

4. The TWWHA was inscribed on the World Heritage List in 1982 and extended in 1989, June 2010, June 2012 and again in June 2013. It is an extensive 1.58 million hectare area containing a range of unusual and unique ecosystems and is also recognised for its cultural value to Tasmanian Aboriginal people.[1]

5. The TWWHA contains approximately one third of Macquarie Harbour, located in the West Coast region of Tasmania. A Marine Farming Development Plan (created under Tasmania's *Marine Farming Planning Act 1995* (Tas)) authorises marine farming operations in part of the harbour adjacent to the TWWHA boundary.[2] In December 2023 the Tasmanian Environment Protection Authority renewed ten Environment Licences authorising salmon farming operations in Macquarie Harbour until at least November 2025.[3]

6. Macquarie Harbour contains the only known remaining population of the endangered Maugean skate (*Zearaja maugeana*), a cartilaginous fish and the only species of skate in the world known to mostly inhabit brackish waters. The Maugean skate is classified as "Endangered" for the purposes of Australia's *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**).[4] The Commonwealth Threatened Species Scientific Committee (**TSSC**) is currently reviewing whether the Maugean skate is eligible for uplisting to Critically Endangered and the Maugean skate currently sits on the TSSC's Finalised Priority Assessment List.[5]

7. Conservation Advice for the Maugean skate prepared by Australia's Federal Department of Climate Change, Energy, the Environment and Water, in effect under the EPBC Act as of 6 September 2023, identified key urgent actions requiring implementation prior to the Australian summer of 2023/2024 to prevent the extinction of the Maugean skate. These included, as the highest priority, the elimination or significant reduction of fish biomass and feeding rates in Macquarie Harbour.[6]

8. Despite this, neither the Federal nor Tasmanian governments have required any reduction in fish biomass or feeding rates in Macquarie Harbour to date.

9. The Conservation Advice also notes there is no known published information on how Tasmanian Aboriginal people relate to Maugean skate and what this may mean for the cultural significance of the species. Ascertaining the cultural significance of the species is identified as a priority conservation and recovery action.[7]

10. Relevantly, the retrospective Statement of Outstanding Universal Value for the TWWHA, approved by the World Heritage Committee on 16 September 2023,

[1] See: https://whc.unesco.org/en/list/181/
[2] See here: https://nre.tas.gov.au/Documents/Mac-Harbour-MFDP-October-2005.pdf
[3] EPA Tasmania (2024) *Marine Environmental Licence Renewals*, https://epa.tas.gov.au/business-industry/regulation/salmon-aquaculture/marine-environmental-licence-renewals
[4] See here: http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=83504
[5] Australian Government (2023) *Finalised Priority Assessment Lists*, https://www.dcceew.gov.au/environment/biodiversity/threatened/assessments/fpal
[6] Australian Government (2023) Conservation Advice for Zearajan maugeana (Maugean skate), https://www.environment.gov.au/biodiversity/threatened/species/pubs/83504-conservation-advice-06092023.pdf p. 29
[7] Ibid, page 9.

describes the Outstanding Universal Value of the TWWHA as including:

a. "unusual assemblages of deep marine species are found within the large estuaries, where communities are moderated by dark tannic freshwater, overlaying salt" (criterion (ix)); and

b. "extensive areas of high wilderness quality ensure habitats of sufficient size to allow the survival of endemic and rare or threatened species such as the Tasmanian wedge-tailed eagle, and many ancient taxa with links to Gondwana" (criterion (x)).

11. The Australian Government's TWWHA Management Plan lists "natural values" of the area, one of which is the endangered Maugean skate.[8]

12. It is therefore highly concerning that the Australian government has failed to implement the urgent recommendations referred to in paragraph [5] above to protect the Maugean skate. A species of recognised World Heritage value is now at risk of imminent extinction, threatening the Outstanding Universal Value of the TWWHA.

13. Australia's most recent State Party Report on the State of Conservation of the Tasmanian Wilderness (**State Party Report**)[9] (and related 2023 update[10]) failed to convey to the World Heritage Committee the threat level to, and consequent urgency of protecting, the Maugean skate, based on the most recent scientific evidence and conservation advice. The TWWHA has since been retired from the State of Conservation reporting process.

14. Urgent action is needed to protect the Maugean skate and ensure the ecological integrity and Outstanding Universal Value of the TWWHA is preserved.

The nature of the threat to the TWWHA

15. The TWWHA is a declared World Heritage property under the EPBC Act. It contains Macquarie Harbour. The world heritage values include "natural values" which are described by the Tasmanian and Commonwealth governments in the "Statement of Values" of the TWWHA Management Plan, as including:

> the endangered Maugean skate (Zearaja maugena) found only in Bathurst Harbour and Macquarie Harbour, is the world's only brackish-water skate. Its closest relatives are found in New Zealand and Patagonia.

16. Moreno et al (2022) indicated that the Maugean skate is now only found in Macquarie

[8] DPIPWE (2016) *Tasmanian Wilderness World Heritage Area Management Plan,* p 47 https://nre.tas.gov.au/Documents/TWWHA_Management_Plan_2016.pdf

[9] See Section 3.2 of the State Party Report on the State of Conservation of the Tasmanian Wilderness, 2022, available here: https://www.dcceew.gov.au/sites/default/files/documents/tasmanian-wilderness-state-party-report.pdf

[10] Update to the State Party Report, 1 March 2023, available here: https://www.dcceew.gov.au/sites/default/files/documents/update-tasmanian-wilderness-state-party-report-2023.pdf

Harbour, and concluded:[11]

> Despite consistent effort since its discovery, only four individuals have ever been seen in Bathurst Harbour, with the last of them captured in 1992… Given the findings in this study, it is unclear if the Maugean skate were ever abundant in Bathurst Harbour.

17. Moreno and Semmens (2023) found a 47% decline from 2014 to 2021 in Maugean skate numbers in Macquarie Harbour and concluded:[12]

> The scale of the overall decline and the scarcity of new recruits creates significant concern for the conservation of the species and implies the need for immediate action. Furthermore, our results highlight the vulnerability of the species to degraded environmental conditions and the need for further monitoring of the population.

18. Moreno and Semmens attributes the decline in Maugean skate numbers to depleted dissolved oxygen (**DO**) levels caused by 'anthropogenic inputs', being the large-scale development of salmonid aquaculture.

19. Earlier research also describes the environmental impacts of salmonid aquaculture, and consequent impacts on the Maugean skate, as follows:

    a. Ross (2016) identified that finfish cages lead to elevated oxygen consumption, which may result in lower DO levels—in particular nearer to cages;[13]
    b. Ross (2017) highlighted the very low levels of DO in Macquarie Harbour, and the possibility of indirect interactions between salmonid farming and the Maugean skate by virtue of decreased DO;[14]
    c. Moreno (2020) examined the sensitivity of the Maugean skate to decreased oxygen levels, and found that chronic exposure to hypoxic conditions leads to (inter alia) deleterious effects on reproduction;[15]
    d. Wild-Allen (2020) modelled DO in Macquarie Harbour absent salmonid aquaculture and found a 50 per cent reduction in hypoxic volume, and a 43 per cent increase in healthy water would result from elimination of salmonid

[11] Moreno et al (2022) *Application of environmental DNA to survey Bathurst Harbour (Tasmania) for the Endangered Maugean Skate* (Zearaja maugeana), p 14, https://www.nespmarinecoastal.edu.au/wp-content/uploads/2023/08/Project-1.33-Final-Report.pdf
[12] Moreno and Semmens (2023) *Interim report - Macquarie Harbour Maugean skate population status and monitoring,* p 1, https://imas.utas.edu.au/__data/assets/pdf_file/0007/1655611/Maugean-skate-2021-interim-report-FINAL.pdf
[13] Ross et al (2016) *Understanding the Ecology of Dorvilleid Polychaetes in Macquarie Harbour: Response of the benthos to organic enrichment from finish aquaculture,* imas.utas.edu.au/__data/assets/pdf_file/0010/905752/2014-038-DLD-Dorvs.pdf
[14] Ross and McLeod (2017) *Environmental Research in Macquarie Harbour: Interim Synopsis of Benthic and Water Column Conditions*, https://www.imas.utas.edu.au/__data/assets/pdf_file/0019/940303/IMAS-Technical-Report-on-Macquarie-Harbour-Condition.pdf
[15] Moreno et al (2020) *Vulnerability of the endangered Maugean Skate population to degraded environmental conditions in Macquarie Harbour* https://www.frdc.com.au/sites/default/files/products/2016-068-DLD.pdf

farming.[16]

20. Australian Government Conservation Advice states that the urgent priority for conservation of the Maugean skate (before summer 2023/24) is to:[17]

> Eliminate or significantly reduce the impacts of salmonid aquaculture on dissolved oxygen concentrations. The fastest and simplest way to achieve this is by significantly reducing fish biomass and feeding rates.

The Australian government's regulatory inaction is failing to protect the TWWHA and the endangered Maugean skate

21. The EPBC Act is the key mechanism offering legal protection for the Outstanding Universal Value of the TWWHA by regulating actions occurring within the TWWHA, and also applies to actions taken outside the TWWHA boundary where that action may have a significant impact on the World Heritage values of the property. [18]

22. In June 2023 we requested the reconsideration a 2012 decision made under the EPBC Act, which determined that expanded marine farming operations in Macquarie Harbour were not a 'controlled action' for the purposes of that Act. (**EPBC 2012/6406**).[19] We requested a reconsideration of EPBC 2012/6406 on the basis of new evidence from the Institute of Marine and Antarctic Studies by Moreno and Semmens, *Interim report – Macquarie Harbour Maugean skate population status and monitoring* dated 2 May 2023 that demonstrated a 47% decline in the Maugean skate population between 2014 and 2021.[20]

23. Our request for reconsideration stated that substantial new information is available about impacts of salmon farming on the endangered Maugean skate and the TWWHA. We asked the relevant Minister to act to immediately and fully protect the Maugean skate by deeming marine farming a controlled action and requiring the cessation of the relevant harmful activities.[21] Two further reconsideration requests were made by the Bob Brown Foundation, and the Australian Marine Conservation Society and Humane Society International Australia in July and August 2023.

24. The Minister found the reconsideration requests to be valid and consequently announced public consultation on salmon farming and Macquarie Harbour on 30 November 2023. The announcement stated that "[a]fter the consultation period ends, the department will take some time to carefully consider the information received".[22]

25. At present, no announcement has been made in relation to EPBC 2012/6406, despite

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[16] Wild-Allen et al (2020) *Macquarie Harbour Oxygen Process model (FRDC 2016-067)*, https://publications.csiro.au/publications/publication/PIcsiro:EP204274

[17] Australian Government (2023) *Conservation Advice for Zearajan maugeana (Maugean skate),* p. 29

[18] See: https://whc.unesco.org/en/list/181/

[19] See https://australiainstitute.org.au/wp-content/uploads/2023/06/Letter-2_Australia-Instiute-to-Minister-for-Environment-re-Maugean-skate_8-June-2023.pdf

[20] Moreno and Semmens (2023) Interim report - Macquarie Harbour Maugean skate population status and monitoring. IMAS. https://imas.utas.edu.au/__data/assets/pdf_file/0007/1655611/Maugean-skate-2021-interim-report-FINAL.pdf

[21] See https://australiainstitute.org.au/wp-content/uploads/2023/06/Letter-2_Australia-Instiute-to-Minister-for-Environment-re-Maugean-skate_8-June-2023.pdf

[22] See https://minister.dcceew.gov.au/plibersek/media-releases/consultation-salmon-farming-macquarie-harbour-0

the Conservation Advice statement that an urgent priority was to "eliminate or significantly reduce the impacts of salmonid aquaculture on dissolved oxygen concentrations. The fastest and simplest way to achieve this is by significantly reducing fish biomass and feeding rates" before the Australian summer of 2023/24, which has now concluded.

26. The World Heritage Convention requires State Parties to:

> take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage (Article 5(d)).[23]

27. Australian World Heritage management principles appear in Schedule 5 to the EPBC Rules. The first general principle is:

> 1.01 The primary purpose of management of natural heritage and cultural heritage of a declared World Heritage property must be, in accordance with Australia's obligations under the World Heritage Convention, to identify, protect, conserve, present, transmit to future generations and, if appropriate, rehabilitate the World Heritage values of the property.

28. The Australian Government's failure to act on Conservation Advice, and its delay in responding to our request for reconsideration of EPBC 2012/6406, leave us concerned that Australia may not be acting in accordance with its World Heritage management principles nor meeting its obligations under the World Heritage Convention.

Request

29. In light of the above, we request UNESCO and the IUCN take appropriate action to protect the Maugean skate and ensure the heritage value of the TWWHA is preserved. We request UNESCO and the IUCN:

    a. write to State Party Australia as a matter of urgency, requesting it undertake and submit to the World Heritage Committee a comprehensive environmental assessment of the impact of salmon farming on the outstanding universal value of the TWWHA with particular regard to the Maugean skate.

30. We request UNESCO's urgent consideration of and action on these matters, which should include a State of Conservation Report for consideration at or before its 46th session in July 2024.

Sincerely,

Eloise Carr, Director, The Australia Institute Tasmania
On behalf of the above organisations

[23] See https://whc.unesco.org/archive/convention-en.pdf

Tasmanian Independent
Science Council
info@tassciencecouncil.org
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16 April 2024

Guy Debonnet
World Heritage Committee Secretariat
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Katherine Zischka and Mathew Emslie-Smith, IUCN
The Hon Tanya Plibersek, MP, Australian Minister for Climate Change, Energy, Environment and Water
The Hon Nick Duigan, MP, Tasmanian Minister for Parks and Environment
The Hon Jane Howlett, MP, Tasmanian Minister for Primary Industries and Water
The Hon Ted Baillieu AO, Chair, Australian Heritage Council

Urgent threat to the heritage value of the Tasmanian Wilderness World Heritage Area

Dear Mr Debonnet,

On behalf of the Tasmanian Independent Science Council, I write seeking to avert the imminent extinction faced by the endemic Maugean Skate (*Zearaja maugeana*), an acknowledged natural heritage value of the Tasmanian Wilderness World Heritage Area (TW WHA).

We respectfully request UNESCO urgently undertake immediate action to protect the Maugean Skate, an ancient taxon and a Gondwanan relic.

State Party Australia has never completed a comprehensive environmental assessment of the impact of fish farming on the outstanding universal value of the TWWHA, despite evidence of significant impacts.

We acknowledge and share the concerns expressed by the Australia Institute and other organisations in their recent letter to the World Heritage Committee, regarding the urgent threat to the heritage values of the TWWHA.

Heritage values of the Tasmanian Wilderness World Heritage Area

The TW WHA encompasses approximately one-third of Macquarie Harbour. The Statement of Outstanding Universal Values for the TW WHA includes natural values of Macquarie Harbour, specifically that, "unusual assemblages of deep marine species are found within the large estuaries" and, "extensive areas of high wilderness quality ensure habitats of sufficient size to allow the survival of endemic and rare or threatened species such as the… many

ancient taxa with links to Gondwana", which includes the Maugean Skate. The Australian Government's management plan for the TW WHA specifically includes the Maugean Skate as a natural value to be protected.

While we do not intend to speak for Tasmanian Aboriginal people, we note that the Australian Government Conservation Advice for the Maugean Skate includes the following:[1]

> The Maugean skate occupies the lands and waters of the toogee People, composed of the mimegin and lowreenne bands in Macquarie Harbour and the ninene band in Port Davey (State of Tasmania 2000; Maxwell-Stewart 2009; AIATSIS 2023). The area around Macquarie Harbour, including Sarah Island, was known by the local Tasmanian Aboriginal people as langerrarerouna, and comprises several documented Tasmanian Aboriginal sites (State of Tasmania 2000; Parks Tasmania 2023). Within Macquarie Harbour, there are three palawa kani (Tasmanian Aboriginal language) place names, including paralungatik (Macquarie Harbour), titikalangrruni (Grummet Island), and langarirruni (Sarah Island) (TAC 2023). Macquarie Harbour was crossed on craft during seasonal movements by Tasmanian Aboriginal people within the region (Maxwell-Stewart 2009). The Tasmanian Aboriginal sites identified within the region have contributed to the cultural significance of the Tasmanian Wilderness World Heritage Area that encompasses Bathurst Harbour and parts of the eastern section of Macquarie Harbour.

The Advice also notes there is no known published information on how Tasmanian Aboriginal people relate to the Maugean Skate or what this may mean for the cultural significance of the species. It recognises that further consultation with Tasmanian Aboriginal peoples will benefit the conservation of the species, including by being guided by traditional knowledge and management practices on Country. An identified priority conservation and recovery action is to determine the cultural significance of Maugean Skate.

Threats to the Maugean Skate

The Maugean Skate is listed as Endangered under the Federal Environment Protection and Biodiversity Conservation (EPBC) Act 1999. Once thought to inhabit both Bathurst and Macquarie Harbours on Tasmania's west coast, the species is now only found in Macquarie Harbour. A study by Moreno et al. (2022) concluded that given, "only four individuals have ever been seen in Bathurst Harbour… it is unclear if the Maugean Skate were ever abundant [in that location]".[2]

In May 2023, researchers detected a very rapid decrease in the Maugean Skate population in Macquarie Harbour (47% reduction between 2014 and 2021), including the near absence of juveniles and viable eggs.[3] The extent of the Maugean Skate population decrease has resulted

[1] Australian Government (2023) Conservation Advice for *Zearajan maugeana* (Maugean skate), p. 9, https://www.environment.gov.au/biodiversity/threatened/species/pubs/83504-conservation-advice-06092023.pdf
[2] Moreno et al (2022) Application of environmental DNA to survey Bathurst Harbour (Tasmania) for the Endangered Maugean Skate (*Zearaja maugeana*), p 14, https://www.nespmarinecoastal.edu.au/wp-content/uploads/2023/08/Project-1.33-Final-Report.pdf.
[3] Moreno and Semmens (2023) Interim report - Macquarie Harbour Maugean skate population status and monitoring, p 1, https://imas.utas.edu.au/__data/assets/pdf_file/0007/1655611/Maugean-skate-2021-interim-report-FINAL.pdf

in the Commonwealth Government's Threatened Species Scientific Committee to review the species' listing status, and consider uplisting it to Critically Endangered.[4]

This population decrease has been attributed to depleted levels of Dissolved Oxygen (DO) in Macquarie Harbour caused by anthropogenic inputs, particularly the impacts of increased nutrients from expanded salmonid aquaculture operations.[5] There is ample scientific evidence published since 2016 that describes the impacts of salmonid aquaculture on the Maugean Skate, including:

- The link between salmonid aquaculture, elevated oxygen consumption and decreased DO levels adjacent to salmonid cages.[6]
- The indirect impact of salmonid farming on the Maugean Skate by consequence of low DO levels in Macquarie Harbour.[7]
- The vulnerability of the Maugean Skate (and its reproductive success) to low DO conditions.[8]
- Modelling that demonstrated the positive impact on water quality (specifically improved DO levels) that would result from the removal of salmonid aquaculture from Macquarie Harbour.[9]
- Environment Protection Authority monitoring sites in the southern regions of Macquarie Harbour (located within the TW WHA) where the lowest ever DO levels throughout much of the water column were recorded as recently as February 2023.[10]

Urgent actions to save the Maugean Skate

The Australian Government's Conservation Advice for the Maugean Skate identified that the first "Urgent Priority" to be implemented before the austral summer of 2023/24 (now concluded) was to "Eliminate or significantly reduce the impacts of salmonid aquaculture on dissolved oxygen concentrations. The fastest and simplest way to achieve this is by significantly reducing fish biomass and feeding rates."[11] This has not occurred.

The Australian Government's failure to take action to protect the TW WHA.

Neither the Tasmanian nor the Australian Government has required any reductions in fish biomass or feeding rates for Macquarie Harbour salmon aquaculture operators in response to the 47% population decrease of Maugean Skate. Rather, 10 new environmental licenses for

[4] Australian Government (2023) Finalised Priority Assessment Lists, https://www.dcceew.gov.au/environment/biodiversity/threatened/assessments/fpal
[5] Moreno and Semmens (2023).
[6] Ross et al (2016) *Understanding the Ecology of Dorvilleid Polychaetes in Macquarie Harbour: Response of the benthos to organic enrichment from finish aquaculture,* imas.utas.edu.au/__data/assets/pdf_file/0010/905752/2014-038-DLD-Dorvs.pdf
[7] Ross and McLeod (2017) *Environmental Research in Macquarie Harbour: Interim Synopsis of Benthic and Water Column Conditions*, https://www.imas.utas.edu.au/__data/assets/pdf_file/0019/940303/IMAS-Technical-Report-on-Macquarie-Harbour-Condition.pdf
[8] Moreno et al (2020) *Vulnerability of the endangered Maugean Skate population to degraded environmental conditions in Macquarie Harbour* https://www.frdc.com.au/sites/default/files/products/2016-068-DLD.pdf
[9] Wild-Allen et al (2020) Macquarie Harbour Oxygen Process model (FRDC 2016-067), https://publications.csiro.au/publications/publication/PIcsiro:EP204274
[10] Tasmanian EPA (2023). Macquarie Harbour Dissolved Oxygen Report, Feb 2023.
[11] Australian Government (2023) Conservation Advice for *Zearajan maugeana* (Maugean skate), p. 29, https://www.environment.gov.au/biodiversity/threatened/species/pubs/83504-conservation-advice-06092023.pdf

Macquarie Harbour aquaculture leases were issued by Tasmania's Environment Protection Authority until at least 2025, despite the acknowledged risk of extinction of the Maugean Skate from aquaculture operations.[12]

In November 2023, the Australian Minister for Climate Change, Energy, Environment and Water announced a reconsideration of the 2012 Decision on Marine Farming Expansion, Macquarie Harbour (EPBC 2012/6406). This reconsideration was triggered by new evidence, as outlined above, on the adverse impacts of salmonid farming on the Maugean Skate. To date, no further announcement has been made by the Minister, despite clear priority actions outlined in the Australian Government's Conservation Advice to eliminate or significantly reduce fish biomass in Macquarie Harbour before the Austral 2023/24 summer.

It is evident that without urgent conservation action, the Maugean Skate risks imminent extinction. This, in turn, risks compromising the Outstanding Universal Values of the TW WHA. The Australian Government's failure to act on its own department's Conservation Advice, and the significant delay in determining the reconsideration of decision EPBC 2012/6406, leave TISC concerned that appropriate steps are not being taken to protect the Maugean Skate and the TW WHA.

The Tasmanian Independent Science Council members respectfully request UNESCO and the IUCN to write to State Party Australia as a matter of urgency requesting that it:

a) undertake and submit to the World Heritage Committee a comprehensive environmental assessment of the impact of salmon farming on the outstanding universal value of the TW WHA, with particular regard to the Maugean Skate, and
b) provide a State of Conservation Report for examination at or before the World Heritage Committee's 46th session in July 2024.

Yours sincerely,

Christine Coughanowr and Dr Graeme Wells
Co-Chairs
Tasmanian Independent Science Council
Via email: info@tassciencecouncil.org;
s. 47F(1)

The Tasmanian Independent Science Council is an incorporated association, comprised of scientists and relevant professionals. We provide independent, non-government advice, focusing on elevating the role of science in policy reforms of state and national significance. We seek to inform public debate and influence legislative reform to improve outcomes for terrestrial, freshwater and marine ecosystems.

[12] EPA Tasmania (2024) *Marine Environmental Licence Renewals*, https://epa.tas.gov.au/business-industry/regulation/salmon-aquaculture/marine-environmental-licence-renewals.

unesco

H.E. Ms Greer Alblas
Ambassador
Permanent Delegate of Australia to UNESCO
Ambassade de l'Australie
4, rue Jean-Rey
75724 Paris Cedex 15

5 March 2025

Culture Sector
World Heritage Centre

Ref: CLT/WHC/APA/25/16

Subject: State of conservation of the World Heritage property 'Tasmanian Wilderness'

Dear Ambassador,

Further to my letter dated 23 April 2024, the UNESCO World Heritage Centre has received another third-party information concerning the marine farming operations in Macquarie Harbour which could negatively impact the Outstanding Universal Value (OUV) of the World Heritage property 'Tasmanian Wilderness', notably the endangered Maugean skate (*Zearaja maugeana*) listed as an attribute of the property's natural values in the *Tasmanian Wilderness World Heritage Area Management Plan 2016*.

We are forwarding you this information (Annex) in accordance with Paragraph 174 of the *Operational Guidelines for the Implementation of the World Heritage Convention*. While we noted with appreciation your letter of 18 July 2024 that the issue has been reviewed under the *Environment Protection and Biodiversity Conservation Act 1999*, we would be grateful to receive your response as soon as possible, preferably within one month following the receipt of this letter.

Should you have any questions or require further information, please do not hesitate to contact my colleagues Ms Himalchuli Gurung, Chief of Asia and the Pacific Unit (h.gurung@unesco.org).

Thanking you for your continuous collaboration and support in the implementation of the *World Heritage Convention*, I remain,

Yours sincerely,

Lazare Eloundou Assomo
Director

Enc.

cc: Australian National Commission for UNESCO
National Focal Point for World Heritage
UNESCO Office in Apia
IUCN, ICOMOS, ICCROM

Aboriginal Land Council of Tasmania

The Australia Institute Research that matters. Tasmania

NoTAS for CLEAN OCEANS No Salmon Feedlots

THE BOB BROWN FOUNDATION

AUSTRALIAN CONSERVATION FOUNDATION

FRIENDS OF THE BAYS STORM - FREDERICK HENRY - NORFOLK

ENVIRONMENT TASMANIA

Australian Marine Conservation Society

HUMANE SOCIETY INTERNATIONAL AUSTRALIA

NOFF NEIGHBOURS OF FISH FARMING

Wilderness Society Life. Support.

Tasman Peninsula Marine Protection

TAMP Tasmanian Alliance for Marine Protection Inc

Keep Our Coast Clean NO FISH FARMS

Mr. Lazare Eloundou Assomo
Director, UNESCO World Heritage Centre
7, place de Fontenoy. 75352 Paris 07 SP, France
Via email only: l.eloundou-assomo@unesco.org

28 January 2025

Mr. Tim Badman
Head, World Heritage Team
IUCN, Rue Mauverney 28 1196, Gland, Switzerland
Via email only: tim.badman@iucn.org

Cc: j.hosagrahar@unesco.org; h.gurung@unesco.org; g.debonnet@unesco.org; mizuki.murai@iucn.org; katherine.zischka@iucn.org; natalia.batista@iucn.org; Minister.Plibersek@dcceew.gov.au; madeleine.ogilvie@parliament.tas.gov.au; AHC.Secretariat@dcceew.gov.au; contact@world-heritage-watch.org.

Dear Mr. Assomo and Mr. Badman,

47th Session of the UNESCO World Heritage Committee and request for a Reactive Monitoring Mission to assess threats to Tasmania's Wilderness World Heritage Area.

1. Further to our letter to Mr Guy Debonnet, dated 4 April 2024, we write again regarding an urgent ongoing threat to the heritage value of the Tasmanian Wilderness World Heritage Area (TWWHA).

2. We thank the World Heritage Centre for transmitting information in relation to our concerns to State Party Australia for their comment, in accordance with the *Operational Guidelines for the Implementation of the World Heritage Convention*. We understand the Australian Government may have responded; however, their response has not been published.[1] We are of the view that any official response to UNESCO should be released as a matter of public interest. This accords with Australia's obligations under the World Heritage Convention to "keep the public broadly informed of the dangers threatening this heritage and of the activities carried on in pursuance of this Convention" (Article 27(2)).
3. Marine farming operations in Macquarie Harbour continue to pose an urgent and ongoing threat to the endangered Maugean skate, a species of recognised world heritage value.[2] The skate is a Gondwana era relic, and the only skate in the world known to mostly inhabit brackish waters.
4. We request further assistance of the IUCN and UNESCO to intervene, to protect the Maugean skate and ensure the heritage value of the TWWHA is preserved.
5. In 2021, the 44th session of the WHC reminded State Party Australia of the importance of carrying out impact assessments, and urged submission to the World Heritage Centre, for review by the Advisory Bodies, details of any project that may affect the property's Outstanding Universal Values (OUV), in accordance with Paragraph 172 of the Operational Guidelines.[3]
6. Decision 44 COM 7B.75 further noted some recommendations arising from the 2015 Reactive Monitoring Mission remained outstanding and reiterated the request to the State Party to finalize these, including some as a matter of priority.
7. The last State of Conservation Report produced by Australia in 2022 did not include any reference to the Maugean skate. Nor did it address all the remaining recommendations. Outstanding recommendations include the completion of a Comprehensive Cultural Survey (RMM Recommendation 13), the prevention and management of biosecurity risks, the management of boundary areas to the Tasmanian Wilderness (RMM Recommendation 196), and joint management with the Tasmanian Aboriginal Community (RMM Recommendation 20). Regarding RMM Recommendation 11, the Tasmanian state government has chosen not to protect Future Potential Production Forest (FPPF) Land in the Tasmanian Wilderness within national park tenure, as was committed to through the RMM.[4]
8. Marine farming of finfish in Tasmania has never been fully assessed under Australian law. No such action has ever been determined to be a controlled action and subject to comprehensive environmental impact assessment.[5] This is now being sought through the reconsideration of the 2012 decision that allowed expanded marine farming operations in Macquarie Harbour.[6]

The Australian Government's inadequate regulatory action in 2024 is failing to protect the TWWHA and the endangered Maugean skate

[1] Correspondence to the Australian Government requesting the release of Australia's response to UNESCO regarding the TWWHA has been unsuccessful. A *Freedom of Information Act 1982* request has been submitted.
[2] DPIPWE (2016) *Tasmanian Wilderness World Heritage Area Management Plan,* p 47 https://nre.tas.gov.au/Documents/TWWHA_Management_Plan_2016.pdf
[3] UNESCO (2021) Decision 44 COM 7B.75, adopted during the extended 44th session of the World Heritage Committee (WHC/21/44.COM/18), p. 167
[4] World Heritage Watch Report 2024, p.140
[5] Australian Government EPBC Act Public Portal
[6] Australian Government (2023) Reconsideration of marine farming in Macquarie Harbour (EPBC 2012/6406) EPBC Macquarie Harbour

9. Conservation Advice for the Maugean skate prepared by Australia's Federal Department of Climate Change, Energy, the Environment and Water, in effect under Australia's *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) as of 6 September 2023, identified key urgent actions requiring implementation prior to the Australian summer of 2023/2024 to prevent the extinction of the Maugean skate. These included, as the highest priority, the elimination or significant reduction of fish biomass and feeding rates in Macquarie Harbour.[7]

10. Despite this, neither the Federal nor Tasmanian governments have since required any reduction in fish biomass or feeding rates in Macquarie Harbour. Instead, in 2024 there were increases in dissolved nitrogen output from fish farms, approaching the Environment Protection Authority's 2022 cap.[8]

11. It has now been over 12 months since Australia's environment minister commenced the reconsideration of the decision that allowed expanded marine farming in Macquarie Harbour. Over 2,500 submissions were made through the consultation process that closed on 2 February 2024. However, a decision has still not been made, despite it being required as soon as practicable after the close of consultation.[9]

12. A separate but related decision on the eligibility of the Maugean skate for uplisting from Endangered to Critically Endangered on the EPBC Act threatened species list, and associated actions for the species, has been delayed until 30 October 2025.[10] However, it is worth noting that Australian Threatened Species Commissioner, Dr Fiona Fraser, told a Senate Environment Committee in May 2023 that "regardless of the uplisting, conservation action still needs to be taken, and still could be taken to address… the current suite of threats. Addressing that current suite of threats is not contingent on the uplisting occurring or any new conservation advice being agreed. There's sufficient information to know that the species is significantly imperilled."

13. Research in 2024 by the Institute of Marine and Antarctic Studies (IMAS) confirms the relative abundance of Maugean skate (the best available estimate of population trends) remains at 47% less than the level recorded at the time of the expansion of aquaculture in the Harbour.[11] The extremely small number of juveniles recorded in surveys since 2021 suggest a once-off reproductive event in 2021 with no evidence that subsequent recruitment events have occurred. Successful recruitment has been absent for at least eight years.

14. The extremely limited recruitment confirms the catastrophic condition identified by the Department for Climate Change, Energy Environment and Water's Threatened Species Scientific Committee.[12, 13] By 2021, the overwhelming majority of the Maugean skate population were mature adults. Maugean skates mature at 4-6 years old and live to 10-15 years, indicating what

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[7] Australian Government (2023) *Conservation Advice for Zearajan maugeana (Maugean skate),* https://www.environment.gov.au/biodiversity/threatened/species/pubs/83504-conservation-advice06092023 p. 29

[8] ABC News (17 May 2024) *Months after second Maugean skate extinction alarm issued, concerns raised that fish farms aren't changing practices fast enough*, https://www.abc.net.au/news/2024-05-17/maugean-skate-conservation-pollution-in-macquarie-harbour/103855188

[9] *Environment Protection and Biodiversity Conservation Act 1999*, s.78C

[10] Federal decision on Macquarie Harbour's endangered Maugean skate put off until next federal election - ABC News

[11] Institute for Marine and Antarctic Studies (2024). Interim Report Number 2 - Macquarie Harbour Maugean skate population, University of Tasmania.

[12] Australian Government (2024) Consultation Document on Listing Eligibility and Conservation Actions – Zearaja maugeana (Maugean skate) (PDF 2.17 MB)

[13] Australian Government (2023) Conservation Advice for Zearaja maugeana (Maugean skate), https://www.environment.gov.au/biodiversity/threatened/species/pubs/83504-conservation-advice-06092023.pdf

little recruitment occurred since 2021 is unlikely to contribute to the reproductive potential of the population until at least 2025, assuming they have survived.

15. Despite the success of captive breeding thus far, it must be noted that conditions in captivity are optimal and do not reflect the wild conditions in Macquarie Harbour. Dissolved oxygen in captivity is at or near 100%, nutritional provision of individuals is optimal, and skates are not exposed to predation. This not only demonstrates a clear disparity in the potential for reproductive success in the wild, but also underscores that ongoing success of any captive breeding/rearing initiatives to aid population recovery (i.e. collecting eggs and adults from the wild and their subsequent return to the harbour) requires significantly improved water quality of Macquarie Harbour. With respect to wild recruitment, the small number of juveniles observed in the Harbour now need to contend with the increased risk of predation from seals which are not endemic to Macquarie Harbour but have established colonies in recent years directly because of prey availability in the form of farmed salmon.[14] The impacts of salmon farming may also inhibit reproduction in the Maugean skate, as evidence has shown reproductive success in another elasmobranch, the spiny dogfish, has been negatively impacted as a result of consuming salmon feed.[15]

16. The dissolved oxygen levels in the TWWHA segment of Macquarie Harbour, particularly at preferred depths of 15-35 m (i.e., part of the depth range of the Maugean skate and where eggs can be found), as reported by the Tasmanian Environment Protection Authority (EPA) remain substantially lower than prior to the expansion of aquaculture16, despite three years of improved recharge of the Harbour from oceanic inflows. Claims that the Harbour is 'healthier than it has been in a decade' are based on dissolved oxygen values in areas which are not skate habitat and benchmarked against the period when the dissolved oxygen levels were at their lowest ever values. For example, oxygen values measured by the EPA at 10m are from loggers in the middle of Macquarie Harbour taking readings in the water column (i.e. 10m from the surface) and thus are not accurately representing what is happening in skate habitat areas which are 10m deep. These claims also ignore other detrimental impacts that aquaculture continues to have on the Harbour.

17. Institute for Marine and Antarctic Studies (IMAS) scientists have confirmed the improvement is due to naturally occurring oceanic oxygen replenishment, which cannot be relied upon alone to address oxygen depletion in the harbour.[17,18] Tasmania's EPA oxygen monitoring results reveal only a gradual increase in oxygen levels which predate the commencement of the Macquarie Harbour Oxygenation Project (MHOP).[19]

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[14] Richardson, BJ (2021) *Tasmania's salmon industry detonates underwater bombs to scare away seals – but at what cost?* The Conversation, September 17, 2021, https://theconversation.com/tasmanias-salmon-industry-detonates-underwater-bombs-to-scare-away-seals-but-at-what-cost-167854

[15] Moreno D. (2018) *An unusual habitat for a common shark: life history, ecology, and demographics of the spiny dogfish* (Squalus acanthias) *in Macquarie Harbour, Tasmania*. University of Tasmania, PhD Thesis. Pp 165.

[16] EPA Tasmania (2024) *Macquarie Harbour - Status update for dissolved oxygen – September 2024,* Hobart, Tasmania. https://epa.tas.gov.au/Documents/Macquarie%20Harbour%20-%20Status%20update%20for%20dissolved%20oxygen%20-%20September%202024.pdf

[17] Professor Jeff Ross, lead scientist of the re-oxygenation project, on improvements in oxygen levels being due to natural recharge from oceanic waters, ABC Tasmania Radio Drive Program, 12 November 2024.

[18] National Recovery Team for the Maugean Skate Meeting 4: 30-31 July 2024 – Public Communique https://nre.tas.gov.au/Documents/National%20Recovery%20Team%20for%20the%20Maugean%20Skate%20Meeting

[19] EPA Tasmania (2024) *Macquarie Harbour seabed compliance results best on record since becoming EPA regulated*, https://epa.tas.gov.au/news/macquarie-harbour-seabed-compliance-results-best-on-record-since-becoming-epa-regulated

18. The MHOP is a trial that aims to assess the efficacy, feasibility and scalability of offsetting the total oxygen drawdown of salmonid aquaculture in the harbour.[20] It does not seek to remediate oxygen levels in the harbour more broadly, despite recently being awarded AUD$21 million by the Australian Government.

19. Tasmanian Government media releases have repeatedly asserted that "*it's clear that industry and research investment in remediation of dissolved oxygen levels in the harbour, along with EPA regulation of the industry is effective and working*",[21] based on the EPA Tasmania's June 2024 report and that of compliance with environmental licence requirements at the "35 metres compliance points" in Macquarie Harbour.[22] These conclusions are incorrect , as they respectively conflate the performance of the MHOP with the natural replenishment of oxygenated seawater, and seabed video surveillance monitoring points (located 35 metres from marine farm lease boundaries) that are completely separate to oxygen monitoring results reported by EPA Tasmania addressed above.

20. It is clear that the Maugean skate is in a precarious situation, that the health of Macquarie Harbour remains compromised and that the aquaculture industry's operations in the Harbour are having unacceptable impacts. International commitments compel Australia to take a precautionary approach to managing threats to a species' existence. This is also why more than 30 prominent Australian scientists, including five fellows from the prestigious Australian Academy of Science, published an open letter informing Federal Environment Minister Tanya Plibersek and all Australians, that they support the science the Minister is legally required to base her decision on regarding the future of salmon farming in Macquarie Harbour.[23] Signatories to the letter include the immediate former Chair of Australia's Threatened Species Scientific Committee as well as many who have had leadership roles in national and international marine organisations and institutions. Signatories called on Minister Plibersek to make the decision to remove unsustainable fish farming from the Harbour and to demonstrate global leadership in protecting Australia's valuable and unique marine life.

21. The Australian Government's failure to act on Conservation Advice, and its continued delay in making a decision on reconsideration of marine farming in Macquarie Harbour, leave us concerned that Australia is not acting in accordance with its World Heritage management principles nor meeting its obligations under the World Heritage Convention.

Request

22. In light of the above, we request the IUCN and UNESCO to jointly recommend to the World Heritage Committee, for consideration at its 47th session, that a Reactive Monitoring Mission is sent to the TWWHA in the second half of 2025 to:

    a. Examine the impact of marine farming operations in Macquarie Harbour on the Outstanding Universal Value of the property, and

    b. Any other relevant matters in relation to the TWWHA.

[20] FRDC (2023) *Macquarie Harbour oxygenation trial*, https://www.frdc.com.au/project/2023-087

[21] Duigan (2024) Media release: More evidence of improvements in oxygen levels at Macquarie Harbour https://www.premier.tas.gov.au/site_resources_2015/additional_releases/more-evidence-of-improvements-in-oxygen-levels-at-macquarie-harbour

[22] Duigan and Abetz (2024) *Media release: Improvements in oxygen levels at Macquarie Harbour*, https://www.premier.tas.gov.au/site_resources_2015/additional_releases/improvements-in-oxygen-levels-at-macquarie-harbour

[23] Top Australian scientists unite in defence of science on Maugean skate

Yours sincerely,

Eloise Carr, Director, The Australia Institute Tasmania

On behalf of the above organisations

Tasmanian Wilderness: a Reactive Monitoring Mission is needed in 2025 to prevent the extinction of Gondwana era Maugean skate

Eloise Carr, The Australia Institute

The Tasmanian Wilderness World Heritage Area (henceforth the 'Tasmanian Wilderness') is the equal highest-ranked World Heritage area, meeting an extraordinary 7 out of 10 World Heritage criteria, including three cultural and all four natural criteria. It is one of the world's largest and most spectacular wilderness areas and a precious cultural landscape.
The ancient Aboriginal heritage predates British colonisation by tens of thousands of years and remains powerful and core to today's Tasmanian Aboriginal people.

The Tasmanian Wilderness has several longer-term threats and in recent years new ones have emerged.[1] None are more urgent, however, than the plight of the endangered Maugean skate (*Dipturus maugeanus*), under imminent threat of extinction from large-scale marine aquaculture for finfish (Atlantic salmon and trout).

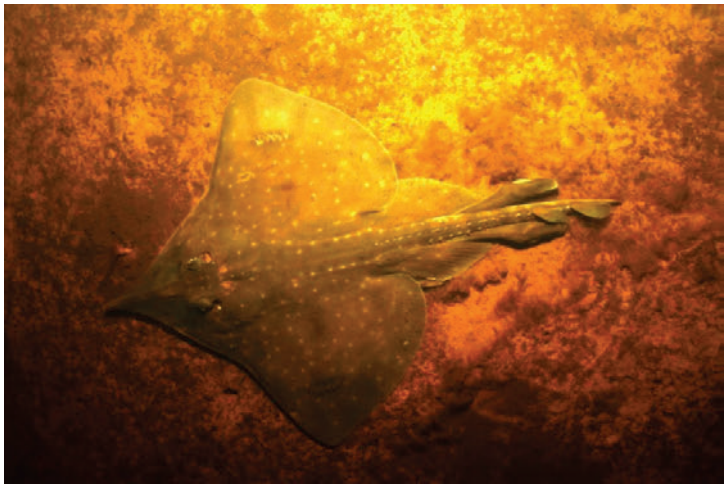

Fig. 1: A Maugean skate.
Photo: Neville Barnett (IMAS)

Maugean skate are an ancient taxa dating back to Gondwana. They are of outstanding universal value and are the only skate in the world known to mostly inhabit brackish waters.[2] The Tasmanian Wilderness contains approximately one third of Macquarie Harbour, where the famous, still wild and tannin-stained waters of the Franklin River flow freely into the sea. This harbour is the Maugean skate's only home.

The World Heritage Centre (WHC) last sent a Reactive Monitoring Mission (RMM) to the Tasmanian Wilderness in 2015, in response to a number of concerns.[3] By 2021, some of the recommendations arising remained outstanding, as noted by the 44th session of the WHC. Australia was asked to finalise these, including some as a matter of priority.[4]

A decade after the RMM, outstanding RMM recommendations include the completion of a Comprehensive Cultural Survey (Recommendation 13), the prevention and management of biosecurity risks, the management of boundary areas (Recommendation 19), and joint management with the Tasmanian Aboriginal Community (Recommendation 20).

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[1] World Heritage Watch Report 2024
[2] TWWHA Management Plan 2016; Adoption of retrospective Statements of Outstanding Universal Value
[3] 39COM 7B.35, Bonn, 2015
[4] Decision 44 COM 7B.75, adopted during the extended 44th session of the World Heritage Committee (WHC/21/44.COM/18)

Unfortunately, the Tasmanian state government has subsequently chosen not to protect Future Potential Production Forest Land in the Tasmanian Wilderness within national park tenure, as was committed to through the RMM (Recommendation 11).[5]

At its 44th Session, the WHC also reminded Australia of the importance of carrying out impact assessments, and urged submission to the WHC, for review by the Advisory Bodies, details of any project that may affect the property's outstanding universal values, in accordance with Paragraph 172 of the Operational Guidelines.

The salmon industry in Tasmania has never been subject to appropriate impact assessment under Australian law.[6]

Consideration of whether to undertake an impact assessment is under active consideration by Australia's environment minister. In 2023, Australia Institute research, supported by two other organisations, triggered a legal reconsideration of the 2012 decision that allowed expanded marine farming operations in Macquarie Harbour.[7] New evidence shows that fish farms are having a catastrophic impact on Maugean skate, threatening it with extinction.[8] Federal environment department advice recommended the destocking of Macquarie Harbour before the Australasian Summer of 2023/2024 for the survival of the skate.

Despite this, neither the Federal nor Tasmanian governments have since required any reduction in fish biomass or feeding rates in Macquarie Harbour. Instead, in 2024 there were increases in dissolved nitrogen output from fish farms, approaching the Environment Protection Authority's 2022 cap.[9]

Requests to publish Australia's response to UNESCO have been refused.

Several civil society organisations have raised these concerns with UNESCO, who took up the issue with the Australian government in April 2024.[10] However, no response from Australia has subsequently been made public. Several requests have been made to the Australian Government to publish their response, including through freedom of information legislation. All requests have been refused.

The World Heritage Convention obliges State Parties to "keep the public broadly informed of the dangers threatening this heritage and of the activities carried on in pursuance of this Convention". Any official correspondence to UNESCO regarding the potential extinction of a species of outstanding universal value should also be released as a matter of public interest. It has now been over 14 months since Australia's environment minister commenced the review of the 2012 decision. Over 2,500 submissions were made through the consultation process that closed on 2 February 2024. Under Australian law such decisions are required 'as soon as practicable' after the close of consultation.[11]

A separate but related decision, on the eligibility of the Maugean skate for uplisting from Endangered to Critically Endangered on Australia's threatened species list (and associated actions), has been delayed until 30 October 2025. However, it is worth noting that Australian Threatened Species Commissioner, Dr Fiona Fraser, told a Senate Environment Committee

[5] World Heritage Watch Report 2024, p.140
[6] Australian Government EPBC Act Public Portal
[7] EPBC Macquarie Harbour - Climate
[8] Conservation Advice for Zearaja maugeana (Maugean skate)
[9] https://www.abc.net.au/news/2024-05-17/maugean-skate-conservation-pollution-in-macquarie-harbour/103855188
[10] UN seeks response to salmon farm skate impacts in Tas | The Australian
[11] *Environment Protection and Biodiversity Conservation Act 1999*, s.78C

in May 2023 that "regardless of the uplisting, conservation action still needs to be taken, and still could be taken to address… the current suite of threats. Addressing that current suite of threats is not contingent on the uplisting occurring or any new conservation advice being agreed. There's sufficient information to know that the species is significantly imperilled."

Despite attempts by the salmon industry and some Australian politicians to discredit evidence that salmon farming is the primary problem in Macquarie Harbour, the federal government's environment department has confirmed, in recently released documents, that the extinction threat remains and the science supporting their recommendation to remove farmed fish biomass is rigorous and sound.

Research in 2024 by the Institute of Marine and Antarctic Studies (IMAS) confirmed the relative abundance of Maugean skate remains 47% less than the population at the time aquaculture expanded.[12] The extremely small number of juveniles recorded in surveys since 2021 suggest a one-off reproductive event in 2021 with no evidence that subsequent reproduction has occurred. Successful reproduction has been absent for at least eight years. The extremely limited reproduction confirms the catastrophic condition identified by the department's Threatened Species Scientific Committee.[13,14] By 2021, the overwhelming majority of the population were mature adults. Maugean skates mature at 4-6 years old and live to 10-15 years, indicating what little recruitment occurred in 2021 will not begin to reproduce until 2025-2027, assuming they survive.

The success of captive breeding thus far demonstrates a clear disparity in reproductive success in the wild - conditions in captivity are optimal and do not reflect conditions in Macquarie Harbour. Dissolved oxygen in captivity is at or near 100%, nutrition is optimal, and skates are not exposed to predation. In the wild, the small number of juveniles now need to contend with the increased risk of predation from seals which are not endemic to Macquarie Harbour but have established colonies in recent years directly because of prey available in the form of farmed salmon. The impacts of salmon farming may also inhibit reproduction in Maugean skate, as evidence has shown in another elasmobranch, the spiny dogfish.[15]

Fig. 2: Seals in Macquarie Harbour. *Photo: Eloise Carr*

[12] Institute for Marine and Antarctic Studies (2024). Interim Report Number 2 - Macquarie Harbour Maugean skate population, University of Tasmania.
[13] Australian Government (2024) Consultation Document on Listing Eligibility and Conservation Actions – Zearaja maugeana (Maugean skate) (PDF 2.17 MB)
[14] Australian Government (2023) Conservation Advice for Zearaja maugeana
[15] Moreno D. (2018) *An unusual habitat for a common shark: life history, ecology, and demographics of the spiny dogfish* (Squalus acanthias) *in Macquarie Harbour, Tasmania*. University of Tasmania, PhD Thesis. Pp 165.

Dissolved oxygen levels in the Tasmanian Wilderness part of the harbour, particularly at preferred depths of 15-35 m (i.e., part of the depth range of the Maugean skate and where eggs can be found), remain substantially lower than prior to aquaculture expansion, as reported by the Tasmanian EPA,[16] despite three years of strong recharge from oceanic inflows. Claims that the harbour is 'healthier than it has been in a decade' are based on dissolved oxygen values in areas which are not skate habitat and benchmarked against the period when the oxygen levels were at their lowest ever values. IMAS scientists have confirmed the improvement is due to naturally occurring oceanic replenishment, which cannot be relied upon to address the depletion. Tasmania's EPA oxygen monitoring reveal only a gradual increase in oxygen levels which predate the commencement of the Macquarie Harbour Oxygenation Project.[17]

Maugean skate are in a precarious situation, the health of Macquarie Harbour remains compromised, and the aquaculture industry's operations are creating unacceptable impacts. International commitments oblige Australia to take a precautionary approach to managing threats to a species' existence. More than 30 prominent Australian scientists, including five fellows from the prestigious Australian Academy of Science, felt compelled to publish an open letter in support of the science.[18] Signatories to the letter include the immediate former Chair of Australia's Threatened Species Scientific Committee as well as many who have held leadership roles in national and international marine institutions. Signatories called on the minister to remove fish farming from the Harbour to protect the skate.

The Australian government's failure to act on Conservation Advice, and its continued delay in making a decision on the review of marine farming, leave many concerned that Australia is not acting in accordance with the World Heritage Convention. In light of the above, a further letter from 14 local and national civil society organisations has requested a RMM to the Tasmanian Wilderness in 2025 to examine the impact of marine farming operations on the outstanding universal value of the property and any other relevant matters.

[16] EPA Tasmania (2024) *Macquarie Harbour - Status update for dissolved oxygen – September 2024,* Hobart, Tasmania.
[17] https://epa.tas.gov.au/news/macquarie-harbour-seabed-compliance-results-best-on-record-since-becoming-epa-regulated
[18] Top Australian scientists unite in defence of science on Maugean skate

AMBASSADEUR, DELEGUE PERMANENTE
DE L'AUSTRALIE AUPRES DE L'UNESCO

AMBASSADOR, PERMANENT DELEGATE
OF AUSTRALIA TO UNESCO

Paris, 18 July 2024

Dear Mr Eloundou Assomo

Thank you for your letter of 23 April 2024 enclosing third party correspondence received by the UNESCO World Heritage Centre in relation to the Maugean skate and the potential impacts of salmon farming operations in Macquarie Harbour, which occur outside and adjacent to the Tasmanian Wilderness World Heritage property.

I am writing to advise that we are working through related processes under the *Environment Protection and Biodiversity Conservation Act 1999* and will seek to provide you with a comprehensive response in the coming months.

Thank you for seeking Australia's comments on the matters raised in the third-party correspondence.

Yours sincerely,

Greer Alblas

Mr Lazare Eloundou Assomo
Director
World Heritage Centre
UNESCO