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**Tasmania**



Attn: Guy Debonnet  
Committee Secretariat  
World Heritage Committee  
World Heritage Centre  
UNESCO  
7, place de Fontenoy  
75352 Paris 07 SP  
France

4 April 2024

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.<sup>1</sup>
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.<sup>2</sup> In December 2023 the Tasmanian Environment Protection Authority renewed ten Environment Licences authorising salmon farming operations in Macquarie Harbour until at least November 2025.<sup>3</sup>
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**).<sup>4</sup> 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.<sup>5</sup>
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.<sup>6</sup>
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.<sup>7</sup>
10. Relevantly, the retrospective Statement of Outstanding Universal Value for the TWWHA, approved by the World Heritage Committee on 16 September 2023,

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<sup>1</sup> See: <https://whc.unesco.org/en/list/181/>

<sup>2</sup> See here: <https://nre.tas.gov.au/Documents/Mac-Harbour-MFDP-October-2005.pdf>

<sup>3</sup> EPA Tasmania (2024) *Marine Environmental Licence Renewals*, <https://epa.tas.gov.au/business-industry/regulation/salmon-aquaculture/marine-environmental-licence-renewals>

<sup>4</sup> See here: [http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\\_id=83504](http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=83504)

<sup>5</sup> Australian Government (2023) *Finalised Priority Assessment Lists*, <https://www.dcceew.gov.au/environment/biodiversity/threatened/assessments/fpal>

<sup>6</sup> 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

<sup>7</sup> 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.<sup>8</sup>
  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**)<sup>9</sup> (and related 2023 update<sup>10</sup>) 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 maugeana*) 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

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<sup>8</sup> DPIPWE (2016) *Tasmanian Wilderness World Heritage Area Management Plan*, p 47  
[https://nre.tas.gov.au/Documents/TWWHA\\_Management\\_Plan\\_2016.pdf](https://nre.tas.gov.au/Documents/TWWHA_Management_Plan_2016.pdf)

<sup>9</sup> 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>

<sup>10</sup> 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:<sup>11</sup>

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:<sup>12</sup>

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;<sup>13</sup>
- 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;<sup>14</sup>
- 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;<sup>15</sup>
- 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

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<sup>11</sup> 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>

<sup>12</sup> 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](https://imas.utas.edu.au/_data/assets/pdf_file/0007/1655611/Maugean-skate-2021-interim-report-FINAL.pdf)

<sup>13</sup> 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](https://imas.utas.edu.au/_data/assets/pdf_file/0010/905752/2014-038-DLD-Dorvs.pdf)

<sup>14</sup> 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](https://www.imas.utas.edu.au/_data/assets/pdf_file/0019/940303/IMAS-Technical-Report-on-Macquarie-Harbour-Condition.pdf)

<sup>15</sup> 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.<sup>16</sup>

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

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.<sup>18</sup>

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**).<sup>19</sup> 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.<sup>20</sup>

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.<sup>21</sup> 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”.<sup>22</sup>

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

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

<sup>17</sup> Australian Government (2023) *Conservation Advice for Zearajan maugeana (Maugean skate)*, p. 29

<sup>18</sup> See: <https://whc.unesco.org/en/list/181/>

<sup>19</sup> See [https://australiainstitute.org.au/wp-content/uploads/2023/06/Letter-2\\_Australia-Institute-to-Minister-for-Environment-re-Maugean-skate\\_8-June-2023.pdf](https://australiainstitute.org.au/wp-content/uploads/2023/06/Letter-2_Australia-Institute-to-Minister-for-Environment-re-Maugean-skate_8-June-2023.pdf)

<sup>20</sup> 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](https://imas.utas.edu.au/_data/assets/pdf_file/0007/1655611/Maugean-skate-2021-interim-report-FINAL.pdf)

<sup>21</sup> See [https://australiainstitute.org.au/wp-content/uploads/2023/06/Letter-2\\_Australia-Institute-to-Minister-for-Environment-re-Maugean-skate\\_8-June-2023.pdf](https://australiainstitute.org.au/wp-content/uploads/2023/06/Letter-2_Australia-Institute-to-Minister-for-Environment-re-Maugean-skate_8-June-2023.pdf)

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

despite 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)).<sup>23</sup>

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

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<sup>23</sup> See <https://whc.unesco.org/archive/convention-en.pdf>