

UNDER the Fast Track Approvals Act 2024

IN THE MATTER of a substantive application for marine consents that would otherwise be applied for under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012

BY Trans-Tasman Resources Limited

**EVIDENCE OF DR DAVID THOMPSON (AVIFAUNA) ON BEHALF OF
TRANS-TASMAN RESOURCES LIMITED IN RESPONSE TO COMMENTS
RECEIVED**

13 OCTOBER 2025



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INTRODUCTION

Qualifications and experience

1. My name is David Richard Thompson
2. I was awarded a Bachelor of Science (Hons.) in Marine Biology by the University of Liverpool in 1985 and a PhD in Zoology by the University of Glasgow in 1990.
3. I am a seabird ecologist and Group Manager (Pelagic Ecosystems) at the Wellington campus of Earth Sciences New Zealand (formerly the National Institute of Water and Atmospheric Research Ltd.), where I have been employed since 1998. I have 35 years (post-PhD) of professional experience in marine biology, particularly seabird ecology. I have research interests and experience in at-sea distributions of seabirds, seabirds as sentinels of marine ecosystems, seabird-fishery interactions and the use of stable isotopes in marine ecology. I have authored over 100 science journal papers, 5 book chapters and over 60 science reports and statements of evidence for a broad range of clients.

Code of Conduct

4. I have been provided with a copy of the Code of Conduct for Expert Witnesses contained in the Environment Court's Practice Note dated 1 January 2023. I have read and agree to comply with that Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Involvement in project

5. As part of Trans-Tasman Resources Limited's (**TTR**) project, I have contributed to several technical reports^{1,2,3,4} and have produced or contributed to the following Statements of Evidence as part of the previous TTR application processes:
- (a) Statement of Evidence dated 15 February 2014,
 - (b) Joint Statement of Experts dated 20 March 2014,
 - (c) Statement of Summary Evidence dated 29 March 2014,
 - (d) Statement of Evidence dated 15 December 2016,
 - (e) Statement of Summary Evidence dated 8 February 2017,
 - (f) Joint Statement of Experts dated 16 February 2017,
 - (g) Statement of Evidence dated 19 May 2023,⁵ including Appendix 1 to this Statement of Evidence,
 - (h) Statement of Rebuttal Evidence dated 23 January 2023 (note: this date as it appears on the Statement is erroneous and should be 23 January 2024):⁶ and

¹ Refer to Supplementary Technical Report 1 and 1a-d - NIWA South Taranaki Bight Factual Baseline Environmental Report – November 2015

² Refer to Supplementary Technical Report 17 - NIWA Assessment of the Scale of Marine Ecological Effects of Seabed Mining in the South Taranaki Bight – September 2015

³ Refer to Supplementary Technical Report 8 – NIWA Seabirds of the South Taranaki Bight – November 2015.

⁴ Refer to Supplementary Technical Report 7 - NIWA Effects of Ships Lights on Fish, Squid and Seabirds – November 2015.

⁵ Refer to Supplementary Technical Report 8c - Evidence statement THOMPSON - May 2023.

⁶ Refer to Supplementary Technical Report 8a – Rebuttal evidence Dr David Thompson – effects on seabirds – January 2024.

- (i) Joint Statement of Experts dated 20 February 2024.
6. Statements marked * in paragraph 5 above are included in TTR's current FTAA application and contain updated information to that presented at the 2017 EEZ Act application hearing.
 7. I gave evidence at the 2014, 2017 and 2024 EEZ Act application hearings. For the present application I reviewed and updated relevant parts of the application documents as they relate to the project's impacts on seabirds including:
 - (a) An updated list of seabirds and shorebirds likely to occur within and adjacent to the STB (Table 3.6 of TTR's Taranaki VTM FTA application document), and updates to section 5.7.2 of the application document detailing potential effects on seabirds; and
 - (b) Updating the draft Seabird Effects Mitigation and Management Plan (Appendix 5.8 to the application).

Scope of evidence

8. This evidence provides responses on the Statement of Evidence of Dr Cockrem on behalf of KASM and Greenpeace Aotearoa dated 6 October 2025.
9. While not contained in this evidence brief, I have also provided further response comments in the response tables provided as part of TTR's wider comments response package to the FTAA Panel. I confirm that comments in response to avifauna have been provided by myself and are within my scope of expertise.

RESPONSE TO DR COCKREM'S EVIDENCE

10. I note that Dr Cockrem's evidence dated 6 October 2025 essentially reaffirms his previous statements of evidence dated 23 January 2017 and 6 October 2023, and additionally the

points of agreement and disagreement noted in the Joint Statement of (seabird) Experts dated 20 February 2024.

11. The 2024 Joint Statement of Experts notes points of agreement on an expanded list of taxa occurring in the STB, including additional years of sightings data since the 2017 EEZ Act application hearing, on the results of tracking studies of little penguin, on the STB forming part of a key biodiversity area (as designated by the International Union for the Conservation of Nature) and on the increased understanding of the impacts of climate change on seabirds.
12. Additionally, the 2024 Joint Statement of Experts reaffirms the positions of the experts as set out in paragraph 6(a-p) of the Joint Statement of Experts dated 16 February 2017. The 2017 Joint Statement of Experts included points of agreement on the importance of the STB for seabirds, on the occurrence of 'Threatened', 'At Risk' and other seabird taxa in the STB, on the lack of systematic surveys of seabirds in the STB and of the adjacent coastline and on the potential for seabird mortality resulting from attraction to artificial nocturnal lighting on mining vessels. Further points of agreement were on the proposed mining generating a sediment plume that would affect seabirds, but the experts disagreed on the scale and magnitude of such effects with respect to seabird foraging in the water column.
13. The key point of disagreement between Dr Cockrem and myself remains the potential effects of the mining-derived sediment plume on the foraging efficiency of seabirds exploiting prey in the water column.
14. I agree with Dr Cockrem that those species that forage for prey within the water column could potentially be affected by elevated turbidity levels in the water column (for example, see paragraph 65 of Dr Cockrem's Statement of Evidence dated 6 October 2023). It is possible that areas with the highest

suspended (mining-derived) sediment concentrations prove unattractive for foraging and that seabirds are displaced from these areas.

15. However, it remains my view, based on the research described by Hadfield and MacDonald (2015)⁷, MacDonald and Hadfield (2017)⁸ and the evidence of Dr MacDonald⁹ that suspended sediment concentrations (**SSCs**) are greatest within a few kilometres of the proposed mining site and decline rapidly with distance from the proposed mining site. On this basis, it is likely that seabirds will be excluded from a relatively small area due to mining-derived increased turbidity.
16. Additionally, it remains my view that while seabirds may be prevented from feeding within a few kilometres of the mining site due to increased turbidity in the water column, the area affected by elevated suspended sediment concentrations will be relatively small compared to the areas able to be exploited by seabirds, including fairy prion and little penguin, two taxa particularly noted by Dr Cockrem.
17. In my opinion, the proposed consent conditions and associated plans (see condition 9 (no adverse effects on seabirds), conditions 47-48 (two-year, pre-commencement Environmental Monitoring Plan), conditions 54-55 (Environmental Monitoring Requirements and Environmental Management and Monitoring Plan) and condition 65 (Seabird

⁷ Hadfield, M., Macdonald, H. (2015) Sediment plume modelling. NIWA Client Report WLG2015-22. Prepared for Trans-Tasman Resources Ltd.

⁸ Macdonald, H., Hadfield, M. (2017) South Taranaki Bight sediment plume modelling - worst case scenario. NIWA Client Report 2017049WN. Prepared for Trans-Tasman Resources Ltd.

⁹ Expert evidence of Dr Helen Macdonald on behalf of Trans-Tasman Resources Limited, 19 May 2023.

Effects Mitigation and Management Plan)) provide adequate safeguards for the protection of seabirds.

CONCLUSION

18. In my opinion, and for the reasons set out here, in my Statements of Evidence of dated 15 December 2016, 19 May 2023 and 23 January 2024, the proposed mining will not result in material harm to on seabirds.

A handwritten signature in black ink, reading "David Thompson". The signature is written in a cursive, flowing style.

Dr David Thompson

13 October 2025