Southern Australia and southeast New Zealand: kelp forests - low adaptation

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| --- | --- |
| Summary of the assessed risk:Loss of kelp forests in southern Australia and southeast New Zealand due to ocean warming, marine heatwaves and overgrazing by climate-driven range extensions of herbivore fish and urchins (low adaptation scenario). [Table SM11.2c]Database id: 96 ([link](https://climrisk.org/cree/ember/96)). Scenario: Low adaptation.This ember is found in the following figure(s):Figure 11.6 of AR6-WGII-Chapter11; (as a rule, summaries are not listed here)The ember diagram included in this document is based on the assessment provided in the IPCC report and supplementary material listed below, but it does not come from the IPCC; all additional information is provided in view of helping to understand this diagram and is also based on, or reproduced from, the same IPCC sources. Please read the disclaimer notice at the end of this document. |  |

# Transition: undetectable to moderate

|  |  |  |
| --- | --- | --- |
| min | 0.4 | *high confidence* |
| max | 0.6 |

(Information on this transition is not available yet)

# Transition: moderate to high

|  |  |  |
| --- | --- | --- |
| min | 0.9 | *high confidence* |
| max | 1.1 |

(Information on this transition is not available yet)

# Transition: high to very high

|  |  |  |
| --- | --- | --- |
| min | 1.1 | *medium confidence* |
| max | 1.9 |

(Information on this transition is not available yet)

# Supplementary information

The data for the transition from high to very high risk is not entirely available in the SM. For this transition, we used the data from the IPCC Data Distribution Centre, 2023 (see specific reference for this ember).

# Specific references

IPCC Data Distribution Centre, 2023: Data used in the Assessment Report 6 from Working Group II of the Intergovernmental Panel on Climate Change (IPCC) for the production of Figure SPM.3; Figure TS.3; Figure 11.6; Figure AI.46, version 0.0.1, DOI: [10.48490/tfq2-9814](https://ipcc-browser.ipcc-data.org/browser/dataset/5851/0)

# Reference for the source data:

Lawrence, J., B. Mackey, F. Chiew, M.J. Costello, K. Hennessy, N. Lansbury, U.B. Nidumolu, G. Pecl, L. Rickards, N. Tapper, A. Woodward, and A. Wreford, 2022: Australasia. In: *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.* [Pörtner, H.-O., D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1581-1688. <https://doi.org/10.1017/9781009325844.013>
Alternative direct download: [www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\_AR6\_WGII\_Chapter11.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_Chapter11.pdf)

Lawrence, J., B. Mackey, F. Chiew, M.J. Costello, K. Hennessy, N. Lansbury, U.B. Nidumolu, G. Pecl, L. Rickards, N. Tapper, A. Woodward, and A. Wreford, 2022: Australasia Supplementary Material. In: *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.* [Pörtner, H.-O., D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)], url: [www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\_AR6\_WGII\_Chapter11\_SM.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_Chapter11_SM.pdf)

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