

# Curriculum Vitae

## Brendan George MACKEY

### Contact details

Current position: Director, Climate Action Beacon

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### Overview

Professor Brendan Mackey is a tenured Professor at Griffith University, Queensland and Director of the Griffith Climate Action Beacon. The Beacon develops the knowledge, leadership, capacity and responses to enable effective and just climate action in society through a scientific understanding of climate change and its impacts on human and natural systems.

- PhD in environmental ecology from The Australian National University which addressed how climate affects natural forests.
- Authored and co-authored 300 publications in the fields of biodiversity, environmental science and policy, including research into climate change impacts on human and natural systems, climate risk assessment, and adaptation planning to manage escalating climate risk. Publications include peer reviewed research articles in the most prestigious scientific journals in these fields including *Nature Climate Change*, *Proceedings of the National the Academy of Sciences*, *Conservation Letters* and *Global Change Biology*.
- Served as a Coordinating Lead Author for the Intergovernmental Panel on Climate Change (IPCC), Working Group II Impacts, Vulnerability & Adaptation, Chapter 11 – Australasia and was a Contributing Author the Working Group Summary for Policy Makers report. The IPCC was formed 40 years ago under the U.N. and is charged with (1) assessing the latest scientific findings on climate physical science, climate change impacts, vulnerability ad adaptation, and greenhouse gas mitigation and (2) providing governments with scientifically robust and reliable policy-relevant, evidence-based conclusions.
- Prof Mackey has co-organiser and contributed to numerous official side-events at Climate COPSFor example, at UNFCCC COP28, he was an invited plenary speaker at the3 0x30 High Level Event: From Agreement to Action: Harnessing 30x30 to Tackle Climate Change.
- He has provided expert advice on matters of climate change and impacts to: the Convention on Biological Diversity; the World Meteorological Society; the Food and Agricultural Organisation of the United Nations; the Melanesian Spearhead Group (the intergovernmental organisation of the Melanesian Countries); the E.U. cabinet; the USA Whitehouse Administration; and the Australian Government.
- Director of the CoastAdapt Project which is funded by the Australian National Emergency Management Authority and is a platform that provides data, models, guidance and decision support tools to help coastal local government undertake climate risk assessments and climate adaptation plans. Climate change adaptation lead researcher for the National Environment Science Program Resilient Landscape Hub funded by the Australia Department of Environment, Energy, Water and Climate Change.
- Over the course of his academic career, he has secured around \$40 million in research funding including five Australian Research Council grants and nine other nationally competitive grants, with many focused on climate change and its impacts including studies.

## Academic Qualifications:

Degree	University
PhD	The Australian National University(TheANU)
M.Res.Env.St.	The ANU
B.App.Sc.	University of Canberra

## Membership of professional associations and networks

- The editorial board of the scientific journal *Pacific Conservation Biology*
- Editorial board member of the scientific journal *Land*
- Ecological Society of Australia, Member
- Great Eastern Ranges Initiative, Board Member
- Earth Charter International, Council Member
- International Union for Conservation of Nature (IUCN)
  - Climate Crisis Commission, Steering Committee Member
  - World Commission on Environmental Law, Member
  - World Protected Area Commission, Member

## Selected Publications

Summary statistics*	
Citation indices	number
Total citations	16,919
h-index	65
i10-index	167
j100-index <sup>+</sup>	43
Category	Sub-totals
Books, edited books & book chapters	56
Articles in journals	180
Conference & workshop proceeding papers	12
Monographs & technical notes	15
Other Publications Including Formal Reports, Policy Discussion Papers Technical Papers, Commentaries, Conference & Technical Papers	31
Consultancy reports	20
Total	313

\* Source: Google Scholar Citations, 4 Aug 2024; <sup>+</sup> Number of publications with ≥100 citations

## Selected Books, Edited Books & Book Chapters

56. Di Filippo, A., **Mackey, B. G.**, Moomaw, W. R., eds. (2024). Natural forests for a safe climate: Enhancing ecosystem integrity, biodiversity and adaptive capacity for climate mitigation. Lausanne: *Frontiers Media SA*. doi: 10.3389/978-2-8325-4881-3.
55. **Mackey B.** and Rogers N. (2023) Key ethical issues for climate-forest policies. In *Routledge Handbook on Applied Climate Ethics* (Donald Brown, Kathryn Gwiazdon, Laura Westra, eds.). <https://www.routledge.com/The-Routledge-Handbook-of-Applied-Climate-Change-Ethics/Donald-Gwiazdon-Westra/p/book/9780367484583>
54. Lawrence, J., **B. Mackey**, F. Chiew, M.J. Costello, N. Hall, K. Hennessy, U.B. Nidumolu, G. Pecl, L. Rickards, N. Tapper, A. Woodward, and A. Wreford, 2022: Chapter 11 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*. H.-O. Pörtner, 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.).
53. Dooley K., Keith H., Larson A., Catacora-Vargas G., Carton W., Christiansen K.L., Enokenwa Baa O., Frechette A., Hugh S., Ivetic N., Lim L.C., Lund J.F., Luqman M., **Mackey B.**, Monterroso I., Ojha H., Perfecto I., Riamit K., Robiou du Pont Y., Young V., 2022. The Land Gap Report 2022. Available at: <https://www.landgap.org/>
52. **Mackey B.** (drafting author) IPCC, 2022: Summary for Policymakers [Hans Otto-Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. 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* [H.-O. Pörtner, 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. In Press.
51. Heather K. and **Mackey B.** (2021) Forest conservation as a mitigation strategy. In *Transitioning to A Prosperous, Resilient and Carbon-Free Economy: A Guide for Decision-Makers*. Cambridge University Press.
50. Barber C.V., R. Petersen V. Young, **Mackey B.**, Kormos C. (2020) *The Nexus Report: Nature Based Solutions to the Biodiversity and Climate Crisis*. F20 Foundations, Campaign for Nature and SEE Foundation.

## Selected Articles in Peer Reviewed Journals

- Dominick A. DellaSala, Brendan Mackey, Cyril F. Kormos, Virginia Young, Julee J. Boan, Jennifer L. Skene, David B. Lindenmayer, Zoltan Kun, Nuria Selva, Jay R. Malcolm, William F. Laurance (2024) Measuring forest degradation via ecological-integrity indicators at multiple spatial scales. *Biological Conservation* 302, February 2025, 110939 <https://doi.org/10.1016/j.biocon.2024.110939>.
- Shestakova T.A., Rogers B.M., **Mackey B.**, Hugh S., Norman P., Kukavskaya E.A. (2024) Tracking ecosystem stability across boreal Siberia. *Ecological Indicators* 169, 112841 <https://doi.org/10.1016/j.ecolind.2024.112841>
- Mackey B.**, Hugh S., Norman P., Rogers B.M. and Dellasala D. (2024). Insights into boreal forest disturbance from a canopy stability index. *Land* 13, 1644. <https://doi.org/10.3390/land13101644>
- Norman P. and **Mackey B.** (2024) A decision support tool for habitat connectivity in Australia. *Pacific Conservation Biology* 30 (2024) PC24008. <https://doi.org/10.1071/PC24008>
- Beatriz Garcia, Edward A. Morgan, Matthew Aruch, Igor Richwin Ferreira, Adriano Jerozolinski, **Brendan Mackey**, Sonia Hugh (2024). Large-scale forest protection: The successful case of the Kayapo people in the Brazilian Amazon. *Regional Environmental Change* 24:148 <https://doi.org/10.1007/s10113-024-02304-6>
- Becken S., Lee D., **Mackey B.** and Miller G. (2024) The scientific basis of ‘net zero emissions’ and its diverging sociopolitical representation. *Science of the Total Environment* 918 (2024) 170725. <https://doi.org/10.1016/j.scitotenv.2024.170725>
- Mackey, B.** Campbell C., Norman P., Hugh S., DellaSala D.A., Malcolm J.R., Desrochers M and Drapeau P. (2024) Assessing the Cumulative Impacts of Forest Management on Forest Age Structure Development and Woodland Caribou Habitat in Boreal Landscapes: A Case Study from Two Canadian Provinces. *Land* 2024, 13, 6. <https://doi.org/10.3390/land13010006>.
- Mackey B.**, Morgan E. and Keith H. (2023) Evaluating Forest landscape management for ecosystem integrity. *Landscape Research*. <https://doi-org.libraryproxy.griffith.edu.au/10.1080/01426397.2023.2284938>
- Christina A. Buelow, Rod M. Connolly, Jillian C. Dunic, Laura Griffith, Briana Holgate, Shing Yip Lee, Brendan G. Mackey, Paul S. Maxwell, Ryan M. Pearson, Anusha Rajkaran, Michael Sievers, Ana I. Sousa, Vivitskaia J. D. Tulloch, Mischa

- P. Turschwell, Jaramar Villarreal-Rosas & Christopher J. Brown (2024) Enabling conservation Theories of Change. *Nature Sustainability* <https://doi.org/10.1038/s41893-023-01245-y>
- Becken S., **Mackey B.** and Lee D. (2023) Implications of preferential access to land and clean energy for Sustainable Aviation Fuels. *Science of the Total Environment* 886 (2023) 163883. <http://dx.doi.org/10.1016/j.scitotenv.2023.163883>
- Brodie V., Patrick N., **Mackey B.**, Fisher S. and Dodd J. (2023) The impact of climate change and wildfire on decadal alpine vegetation dynamics. *Australian Journal of Botany* **71**, 231-251. <https://doi.org/10.1071/BT23002>
- Buckwell A., Fleming C., Bush G., Manda J.Z., Taye F. and **Mackey B.** (2023) Assessing Community Readiness for Payments for Ecosystem Service Schemes for Tropical Primary Forest Protection in the Democratic Republic of Congo. *The Journal of Development Studies* **59** (7) <https://doi.org/10.1080/00220388.2023.2182682>
- Rogers B.M., **Mackey B.**, Shestakova T.A., Keith H., Young V., Kormos C.F., DellaSala D.A., Dean J., Birdsey R., Bush G., Houghton R.A. and Moomaw W.R. (2022) Using ecosystem integrity to maximize climate mitigation and minimize risk in international forest policy. *Front. For. Glob. Change*, Sec. Forest Management. <https://doi.org/10.3389/ffgc.2022.929281>
- DellaSala, D.A., **Mackey, B.G.**, Norman, P., Campbell, C., Comer, P., Kormos, C. and Keith, H., (2022) Mature and Old-Growth Forests Contribute to Large-Scale Conservation Targets in the Conterminous USA. *Frontiers in Forests and Global Change*, p.209. <https://doi.org/10.3389/ffgc.2022.979528>
- Morgan, E.A., Bush, G., Manda, J.Z., Kermarc, M. and **Mackey, B.** (2022) Comparing Community Needs and REDD+ Activities for Capacity Building and Forest Protection in the Équateur Province of the Democratic Republic of Congo. *Land* **11**, 918. <https://doi.org/10.3390/land11060918>
- Serrao-Neumann S., Taygfeld P., Asbridge E.F., **Mackey B.**, Rogers K. and Low Choy D. (2022) Harnessing the temporal and projective attributes of human agency to promote anticipatory climate change adaptation *Journal: Environmental Policy and Governance*. DOI: 10.1002/eet.2009
- Mackey, B.G.**, Moomaw W., Lindenmayer D.B. and Keith H. (2022) Net carbon accounting and reporting are a barrier to understanding the mitigation value of forest protection in developed countries. *Environ. Res. Lett.* **17** 054028. <https://doi.org/10.1088/1748-9326/ac661b>
161. Morgan E., Buckwell A., Guidi C., Garcia B., Rimmer L., Cadman T. and **Mackey B.** (2022) Capturing Multiple Forest Ecosystem Services for Just Benefit Sharing: The Basket of Benefits Approach. *Ecosystem Services* **55** (2022) 101421. <https://doi.org/10.1016/j.ecoser.2022.101421>
160. Keith H., **Mackey B.**, Svoboda M., Kun Z., Mikoláš M., Svitok M. and Svoboda M. (2022) Evaluating the mitigation effectiveness of forests managed for conservation versus commodity production using an Australian example. *Conservation Letters* e12878. <https://doi.org/10.1111/conl.12878>