Structural diversity and tree density drives variation in the biodiversity-ecosystem function relationship of woodlands and savannas

- John L. Godlee¹, Casey M. Ryan¹, David Bauman^{2,3}, Samuel J. Bowers¹, Joao M. B. Carreiras⁴, Antonio Valter Chisingui⁵, Joris P. G. M. Cromsigt^{6,7,8}, Dave J. Druce^{9,10}, Manfred Finkch¹¹, Francisco Maiato Gonçalves⁵, Ricardo M. Holdo¹², Steve Makungwa¹³, Iain M. McNicol¹, Edward T. A. Mitchard¹, Anderson Muchawona¹⁴, Rasmus Revermann^{11,15}, Natasha Sofia Ribeiro¹⁶, Abel Siampale¹⁷, Stephen Syampungani¹⁸, José João Tchamba⁵, Hemant G. Tripathi¹⁹, Johannes Wallenfang¹¹, Mariska te Beest^{20,21,22}, Mathew Williams¹, Kyle G. Dexter^{1,23}
- 1: School of GeoSciences, University of Edinburgh, Edinburgh, EH9 3FF, United Kingdom
- 2: Environmental Change Institute, School of Geography and the Environment, University of Oxford, Oxford, United Kingdom
- 3: Laboratoire d'Écologie Végétale et Biogéochimie, CP 244, Université Libre de Bruxelles, Brussels, Belgium
- 4: National Centre for Earth Observation (NCEO), University of Sheffield, Hicks Building, Hounsfield Road, Sheffield, S3 7RH, United Kingdom
- 5: Herbarium of Lubango, ISCED Huíla, Sarmento Rodrigues Str. No. 2, CP. 230, Lubango, Angola
- 6: Department of Wildlife, Fish, and Environmental Studies, Swedish University of Agricultural Sciences, Umeå, Sweden
- 7: Department of Zoology, Centre for African Conservation Ecology, Nelson Mandela University, Port Elizabeth, South Africa
- $8\mathrm{:}$ Copernicus Institute of Sustainable Development, Utrecht University, $3584\mathrm{CS}$ Utrecht, the Netherlands
- 9: Ecological Advice, Ezemvelo KZN Wildlife, Hluhluwe-iMfolozi Park, South Africa
- 10: School of Life Sciences, University of KwaZulu-Natal, Pietermaritzburg, South Africa
- 11: Biodiversity, Evolution and Ecology of Plants, Institute of Plant Sciences and Microbiology, University of Hamburg, Ohnhorststr. 18, 22609 Hamburg, Germany
- 12: Odum School of Ecology, University of Georgia, 140 E. Green St., Athens, GA 30602, USA
- 13: Lilongwe University of Agriculture and Natural Resources (LUANAR), Lilongwe, Malawi
- 14: Forest Research Centre, 1 Orange Groove Highlands, Harare, Zimbabwe
- 15: Faculty of Natural Resources and Spatial Sciences, Namibia University of Science and Technology, Windhoek, Namibia
- 16: Department of Forest Engineering, Faculty of Agronomy and Forest Engineering, Universidade Eduardo Mondlane, Av. Julius Nyerere, 3453, Campus Universitario, Maputo, Mozambique
- 17: Forestry Department Headquarters Ministry of Lands and Natural Resources, Cairo Road, Lusaka, Zambia
- 18: School of Natural Resources, Copperbelt University, Kitwe, Zambia
- 19: Faculty of Biological Sciences, University of Leeds, LS2 9JT, United Kingdom
- 20: Copernicus Institute of Sustainable Development, Utrecht University, 3508 TC Utrecht, The Netherlands
- 21: Centre for African Conservation Ecology, Nelson Mandela University, Port Elizabeth, 6031, South Africa
- 22: South African Environmental Observation Network, Grasslands-Forests-Wetlands Node, Montrose, 3201, South Africa
- 23: Royal Botanic Garden Edinburgh, Edinburgh, EH3 5LR, United Kingdom

Author for correspondence:

John L. Godlee

Telephone: +44(0) 7397 978 688 Email: johngodlee@gmail.com

Word count:

Main body word count	6384
Summary	193
Introduction	1490
Materials and Methods	1999
Results	726
Discussion	2216
Acknowledgements	122

Number of figures: 7 Number of tables: 2

Colour figures: 1, 3, 5, 6

Number of supporting information files: 5