

Privately protected areas help conserve overlooked and threatened regions

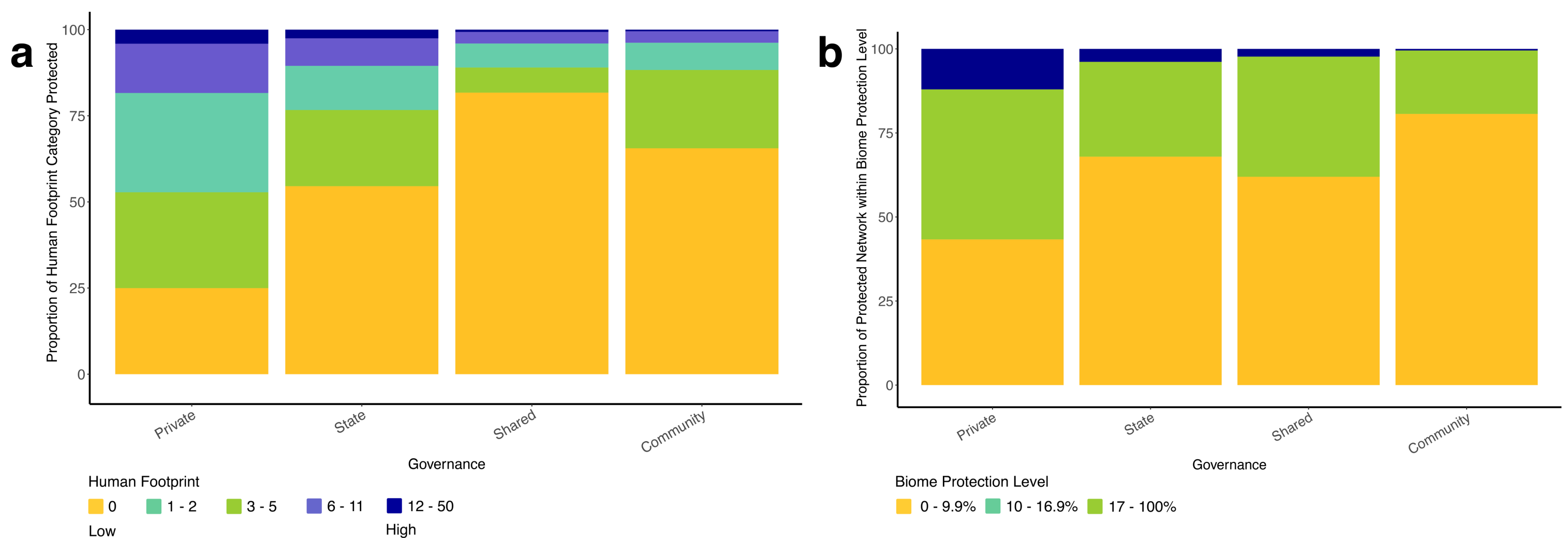
Privately protected areas (PPAs) are: (i) governed by individuals, NGO's and corporate, religious or research organisations, (ii) predominantly managed for biodiversity conservation, and (iii) have long term intent and legal of other effective means of protection. Although PPAs have increased in number and extent, we know little about their conservation potential.

Key findings

We studied PPAs in 15 countries across five continents and find that PPAs increase the amount of land conserved by ~3.4%, an area equivalent to the size of the UK. PPAs can make a significant and unique contribution to the global protected area (PA) network because they:

- Are twice as likely to be in areas with the greatest human disturbance, such as agriculture and mining (Fig 1a)
- Are three times more likely to be in biomes with almost no established protected areas (Fig 1b)
- Increase national protected area connectivity on average by 7% (across our 15 study countries)
- Increase Key Biodiversity Area coverage by 1.2%

Fig 1. Proportion of (a) human footprint categories protected, and (b) biome protection level by protected area governance type



The current context

Terrestrial protected areas (PAs) cover approximately 16% of the world's land mass but have been established in higher and steeper areas that have lower agricultural and economic potential. The global network of terrestrial PAs underrepresents key species and ecosystems, lacks connectivity, and does not adequately protect areas of high conservation importance. The global PA network thus fails its own goal to comprehensively conserve biodiversity. State governed PAs dominate conservation strategies in most countries, but government action alone will be insufficient to reach global PA targets. Understanding the potential of PPAs to contribute to global conservation efforts is therefore essential.



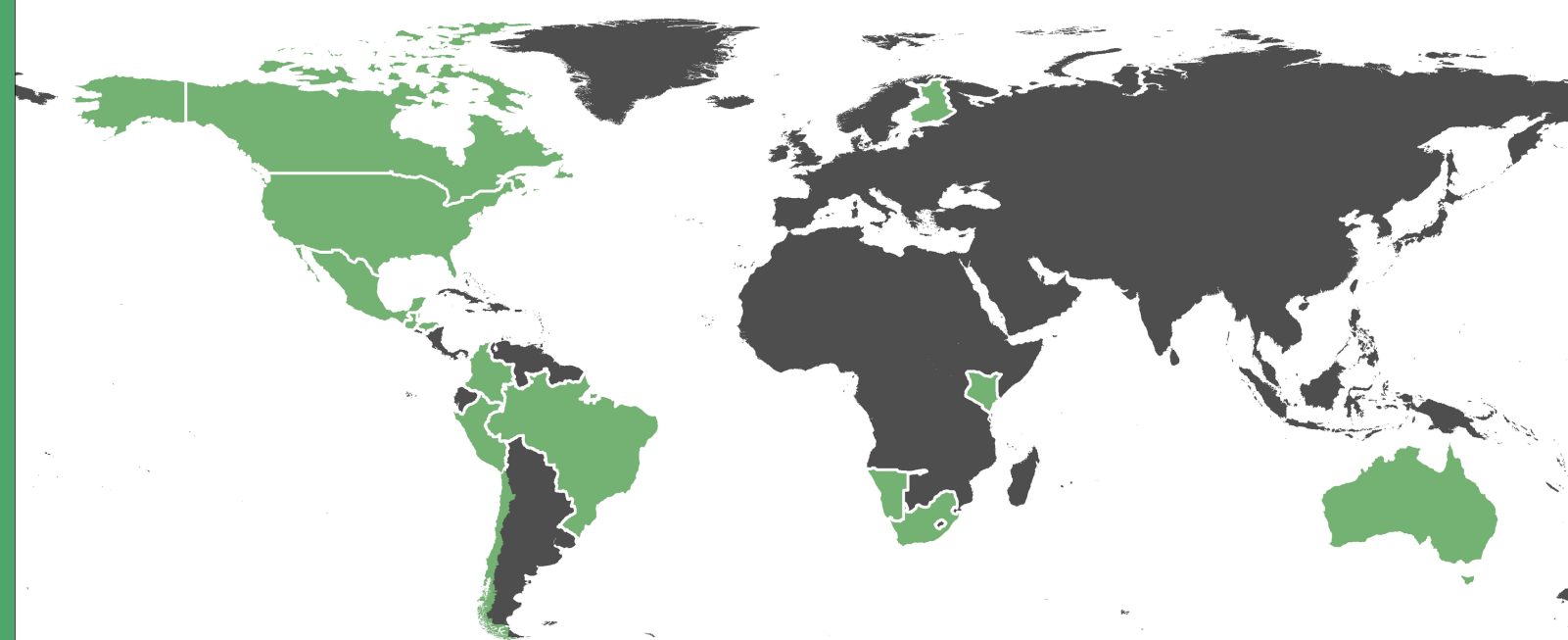
Methodology

We assessed the contributions of 17,561 PPAs to the coverage, complementarity and connectivity of existing PA networks in 15 countries across 5 continents. Our study makes three key advances on the knowledge of PPAs by:

- Being the first international level study into the spatial distribution of PPAs
- Being the first study to assess the distribution of PPAs against that of random placement proving that current PPA distribution performs better than random chance (unlike other PA governance types)
- Finding that despite different drivers and casual mechanisms for PPAs across multiple countries their potential benefits remain constant

Fig 2. Countries included in our study

Australia, Belize, Brazil, Canada, Chile, Colombia, Finland, Guatemala, Honduras, Kenya, Mexico, Namibia, Peru, South Africa and the United States



Implications

We show that PPAs can protect key ecosystem services and offer restoration opportunities because they are more likely to be located in human dominated landscapes. PPAs are also more likely to be located in urban areas and in some cases may be the last remaining green spaces in our cities offering multiple health and well-being benefits for millions of citizens.

Given the contributions that PPAs can make to the global PA estate we suggest that:

- To maximise their benefits, greater legal recognition and improved reporting mechanisms on PPA boundaries are needed to enable a more co-ordinated approach of their establishment.
- Greater technical and financial help is needed in order to incentivise and facilitate the establishment of PPAs and help PPA owners implement better land management practices (including land restoration).
- Systems need to put in place to ensure that the establishment of PPAs is fair and just and that any disputes with indigenous or local communities are adequately addressed and resolved in an appropriate and ethical manner

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Read more:

www.nature.com/articles/s41559-022-01715-0

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