



IAVS2022

INTERNATIONAL ASSOCIATION FOR VEGETATION SCIENCE

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Facultad de Farmacia
Universidad Complutense de Madrid



IAVS

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sPlot 4.0: a call for researchers from the Global South

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Vegetation dynamics and conservation of natural and semi-natural habitats in a climatic crisis scenario

- Diversity and functioning of natural and semi-natural habitats
- Conservation of relict vegetation as threatened habitats
- Pre-human landscapes
- Human impact as a driver of vegetation dynamics
- Habitat restoration
- The role of cryptogams in terrestrial habitats
- What about the future? Conservation challenges

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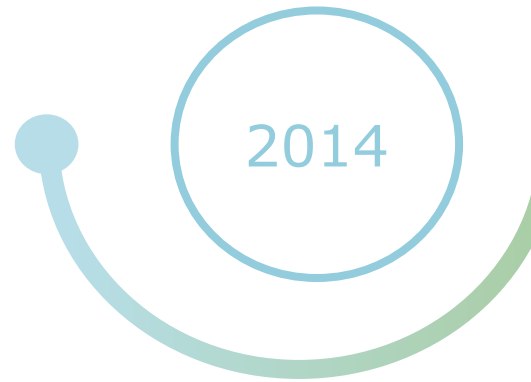
Global synthetic analysis
of vegetation patterns

The sPlot project

- Collaborative global database of vegetation plots
- Created to unravel plant trait-environment relationships
- Aimed to understand global patterns in plant diversity across facets, biomes and scales
- Linked to TRY database
- Almost 2 million plots
- Globally widespread:
 - 7 continents
 - 136 countries
 - all biogeographic realms



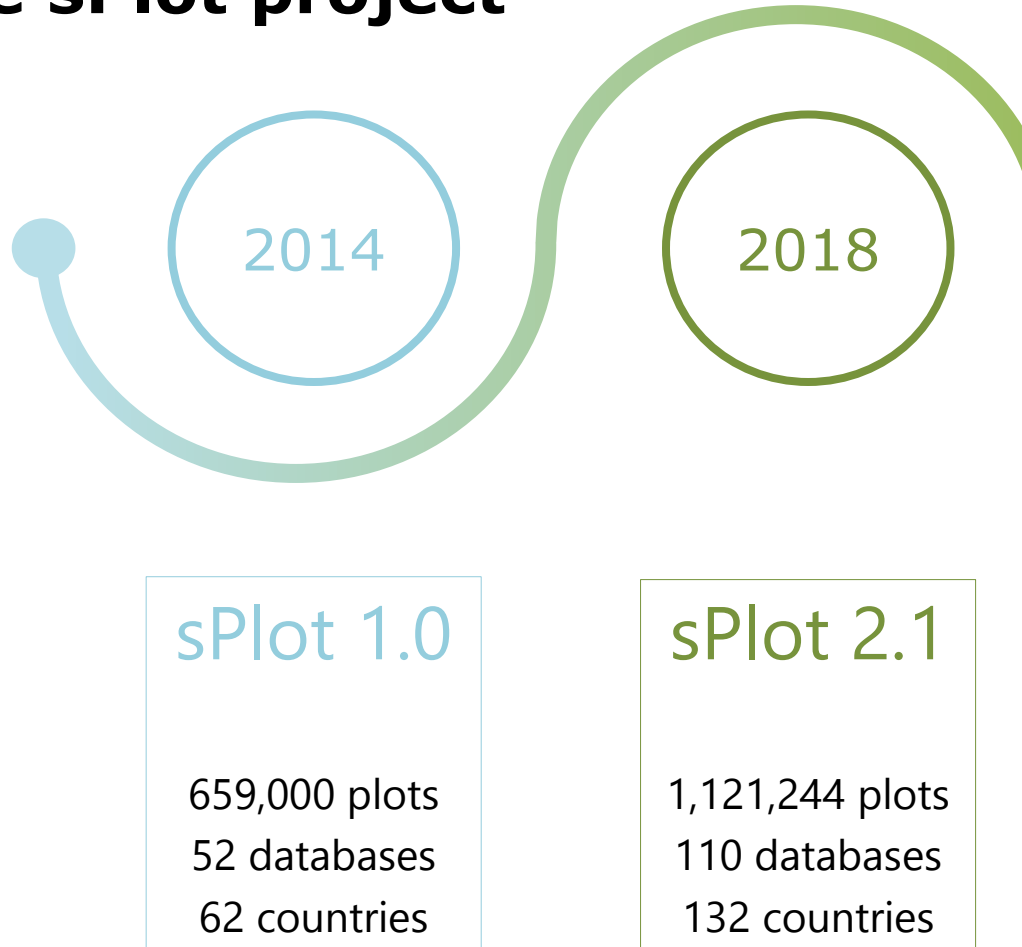
The sPlot project



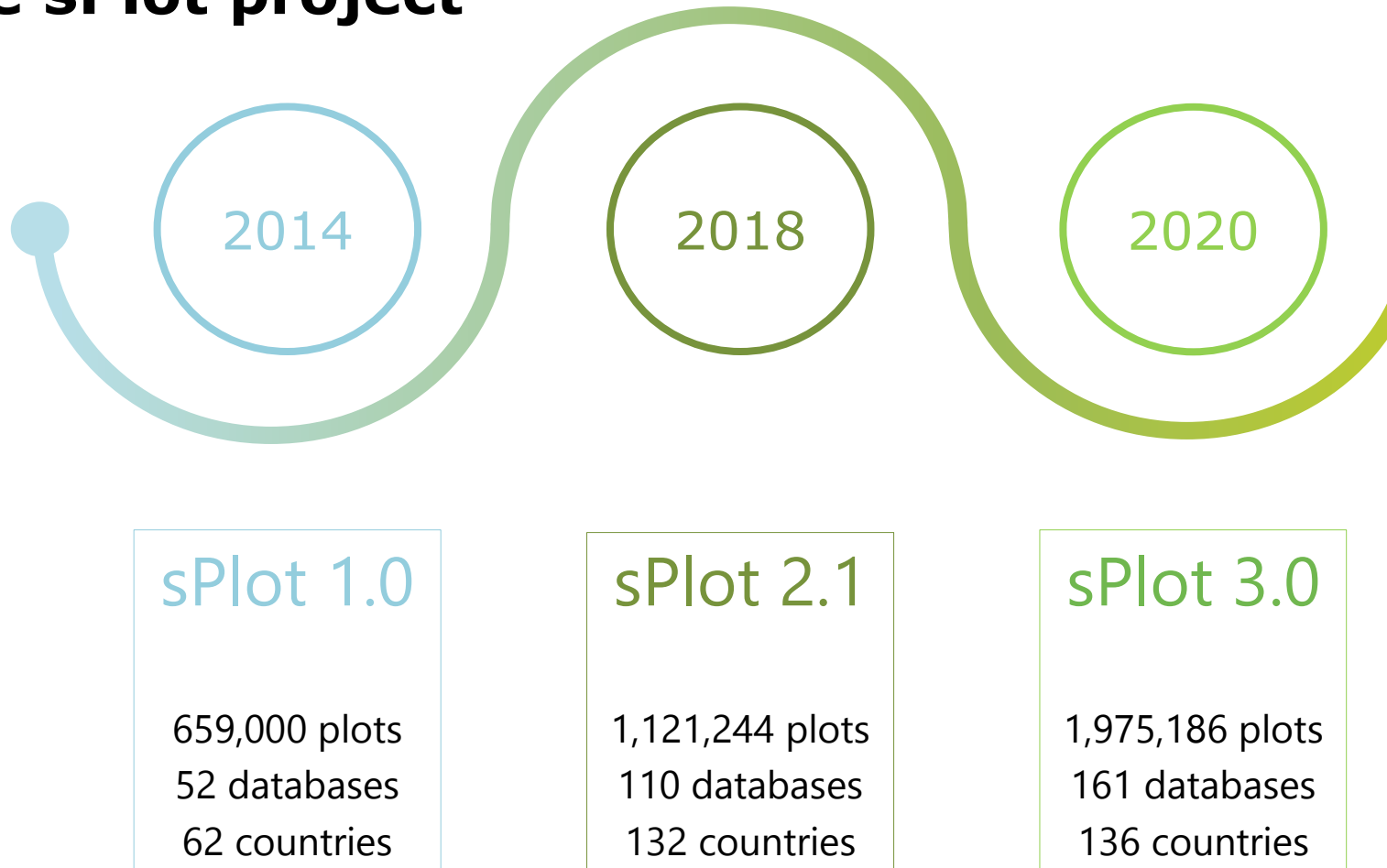
sPlot 1.0

659,000 plots
52 databases
62 countries

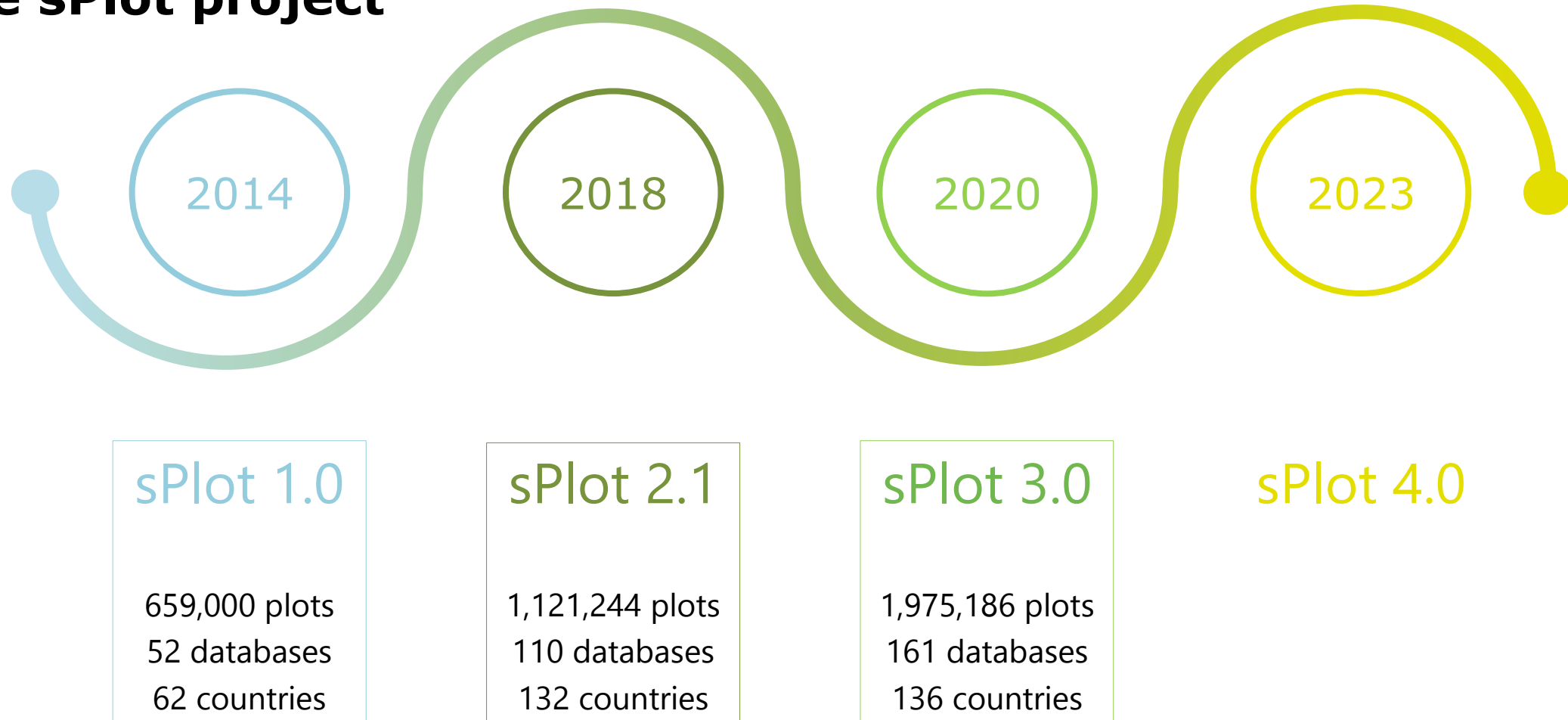
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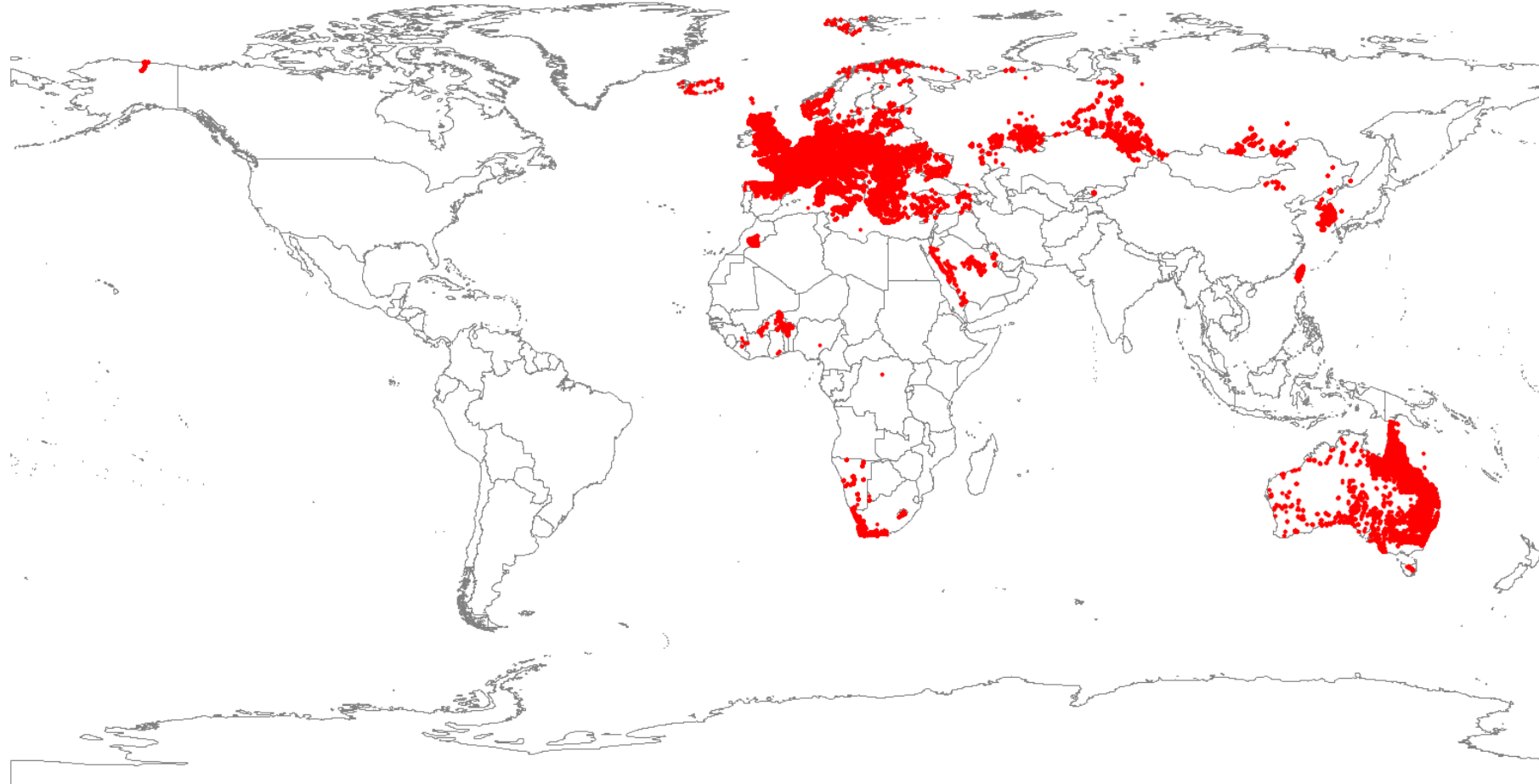
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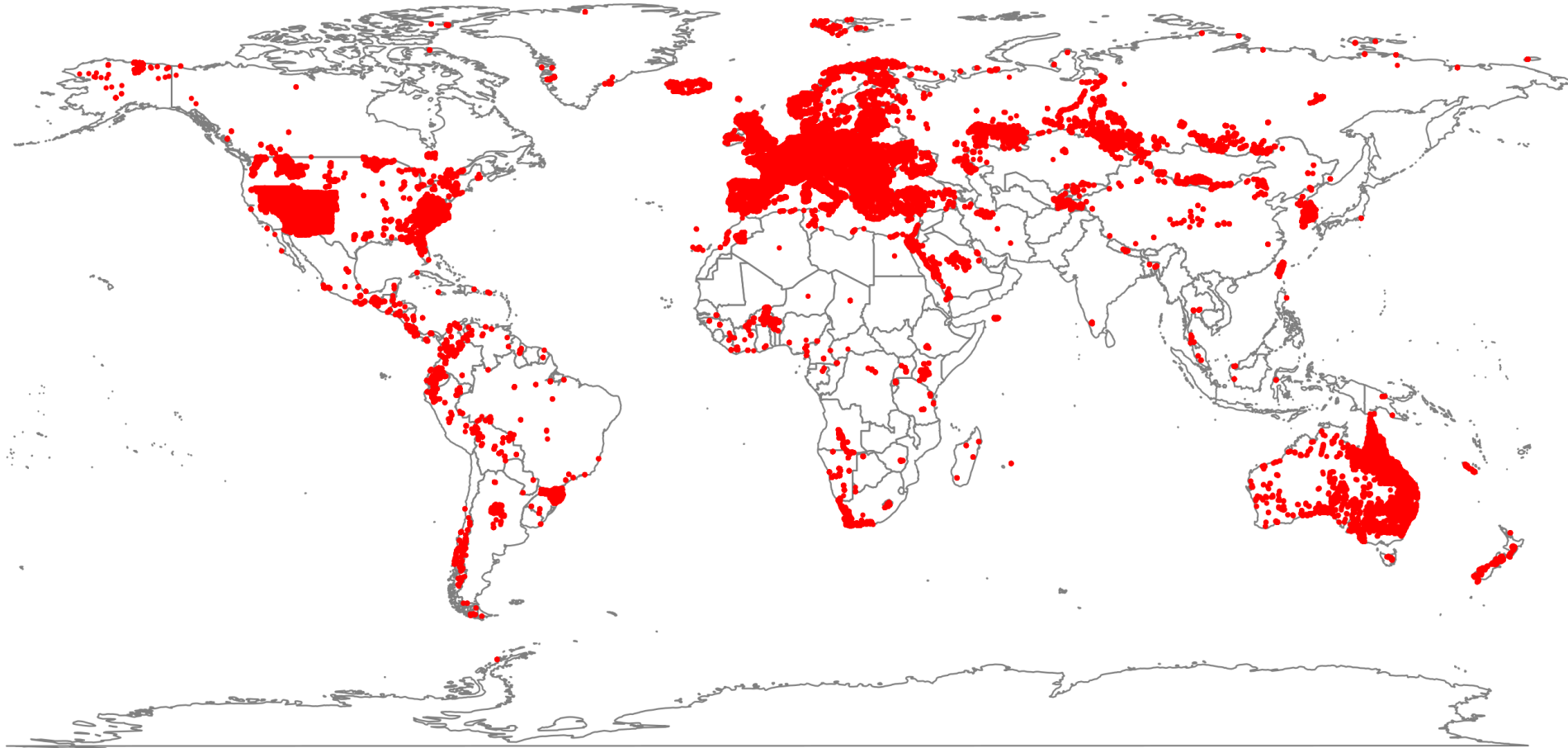
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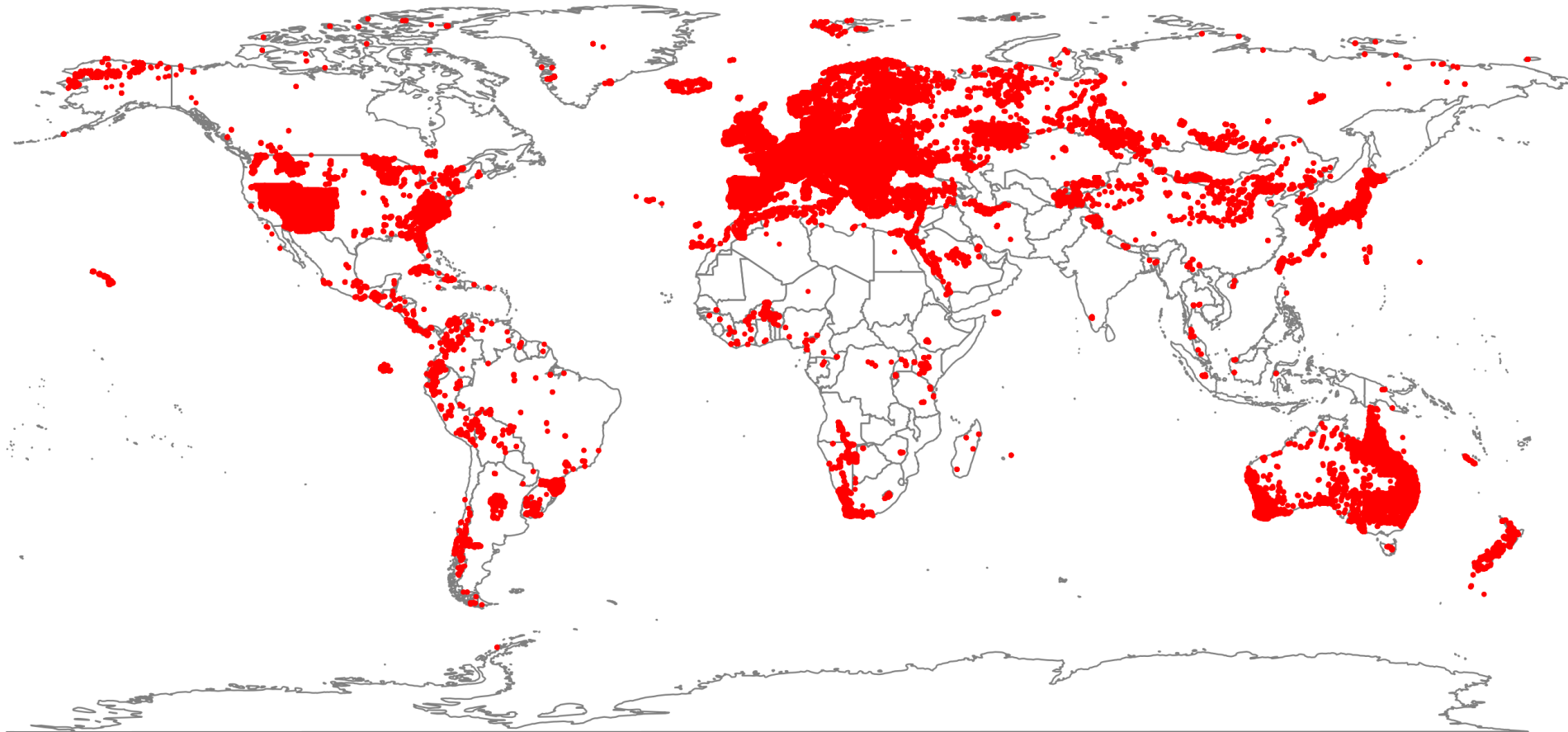
Expansion of the database - 2014



Expansion of the database - 2018

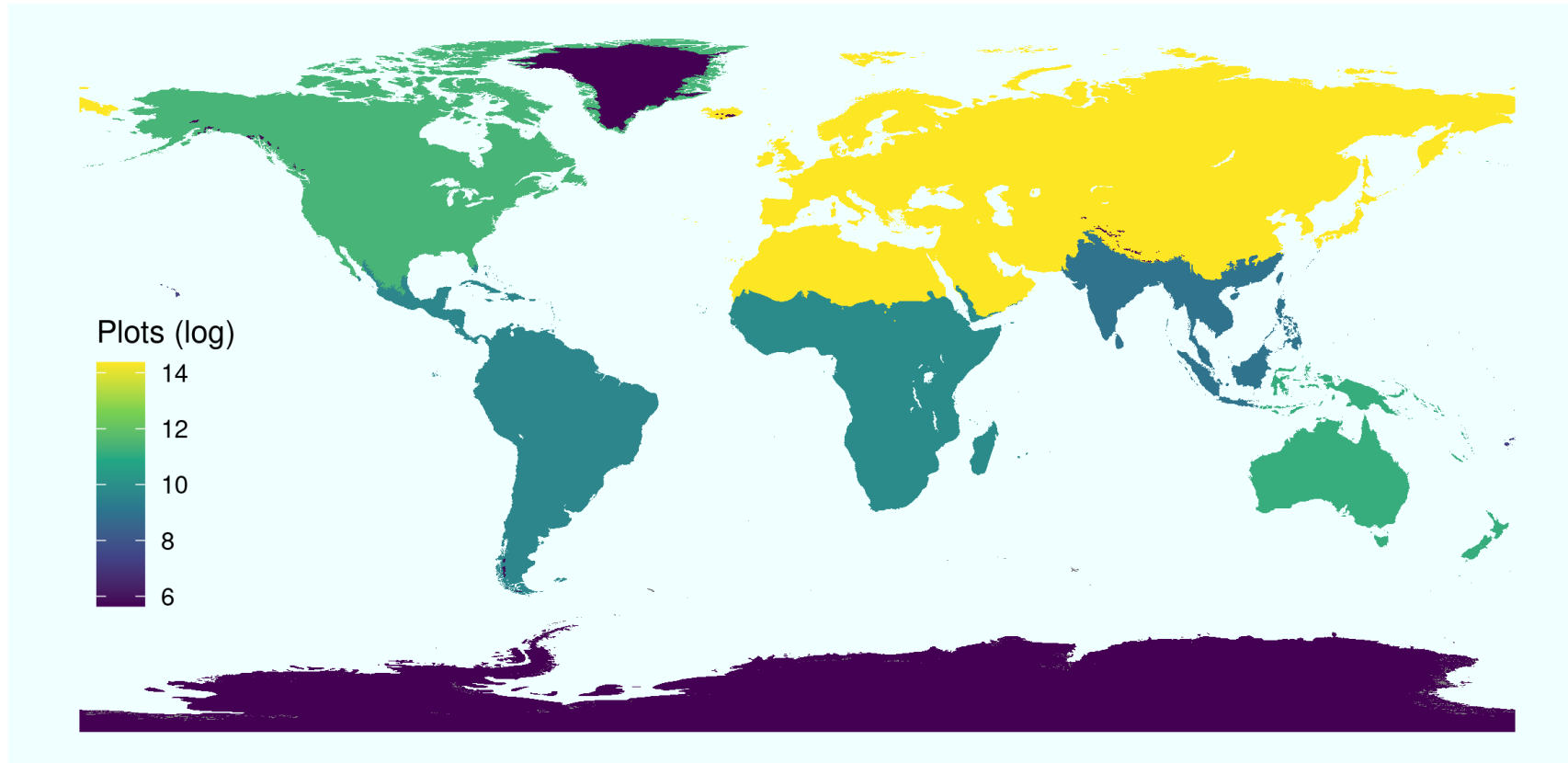


Expansion of the database - 2020



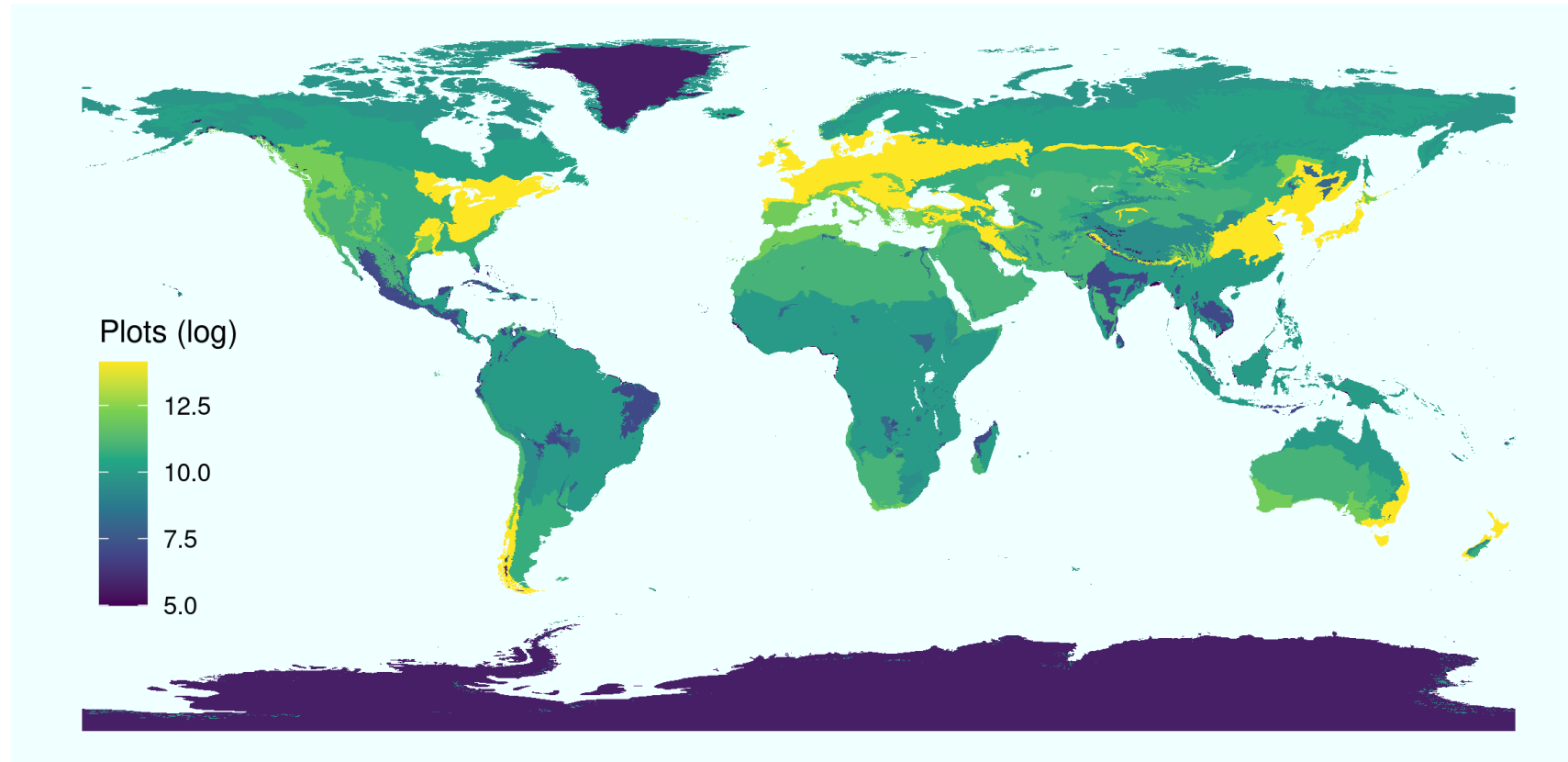
Imbalance in coverage

Plots per realm



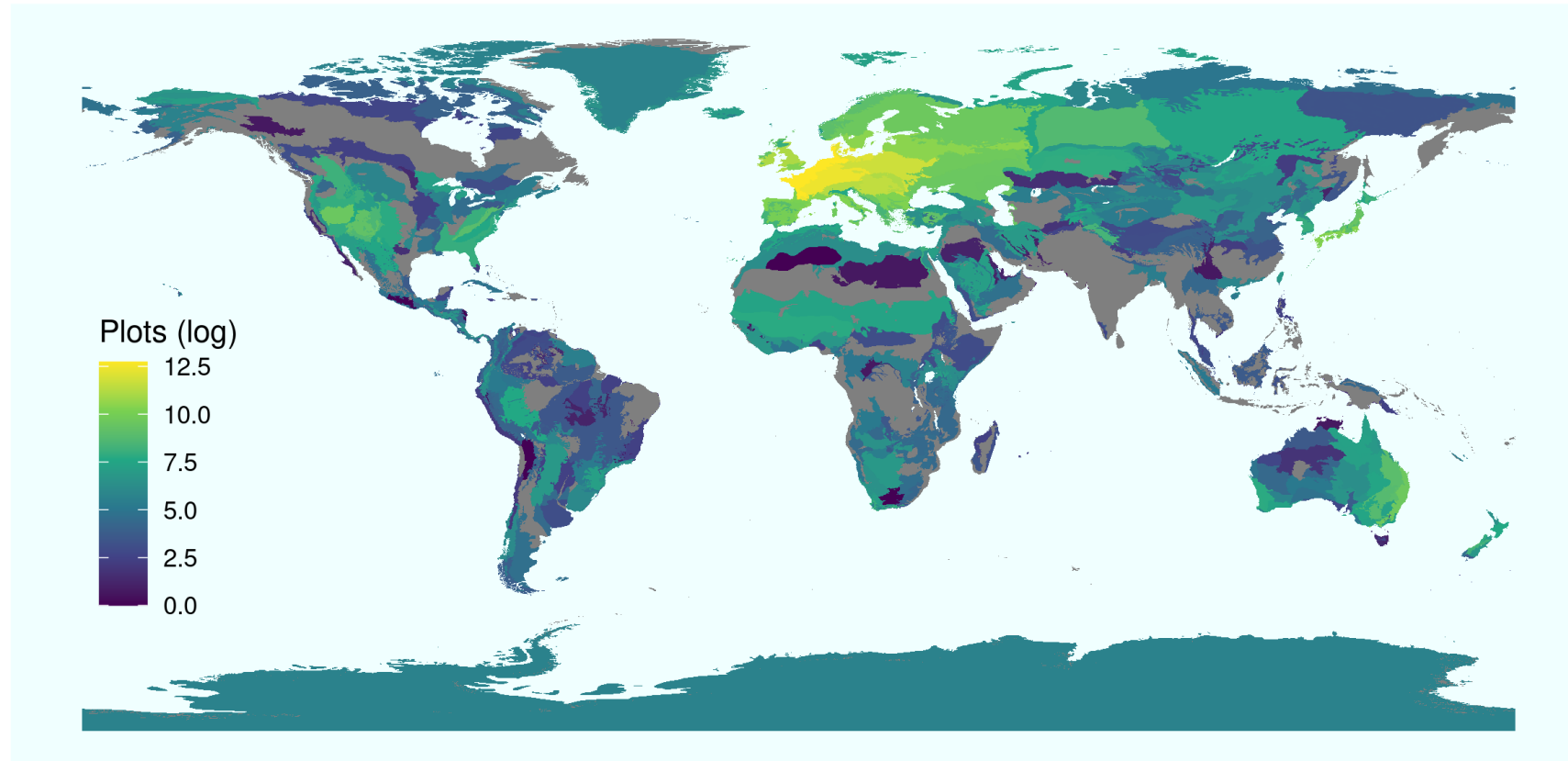
Imbalance in coverage

Plots per biome

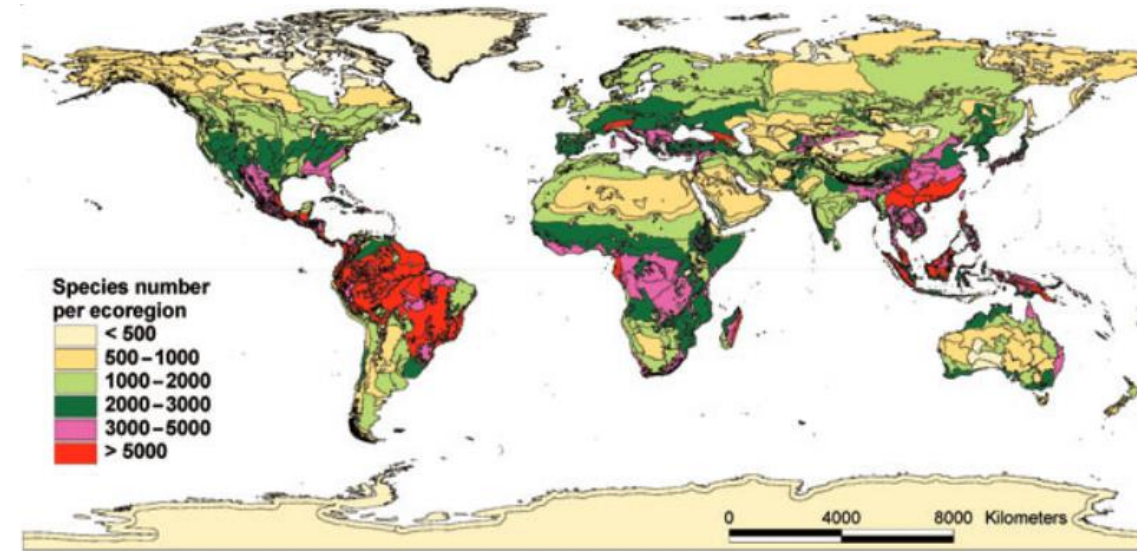


Imbalance in coverage

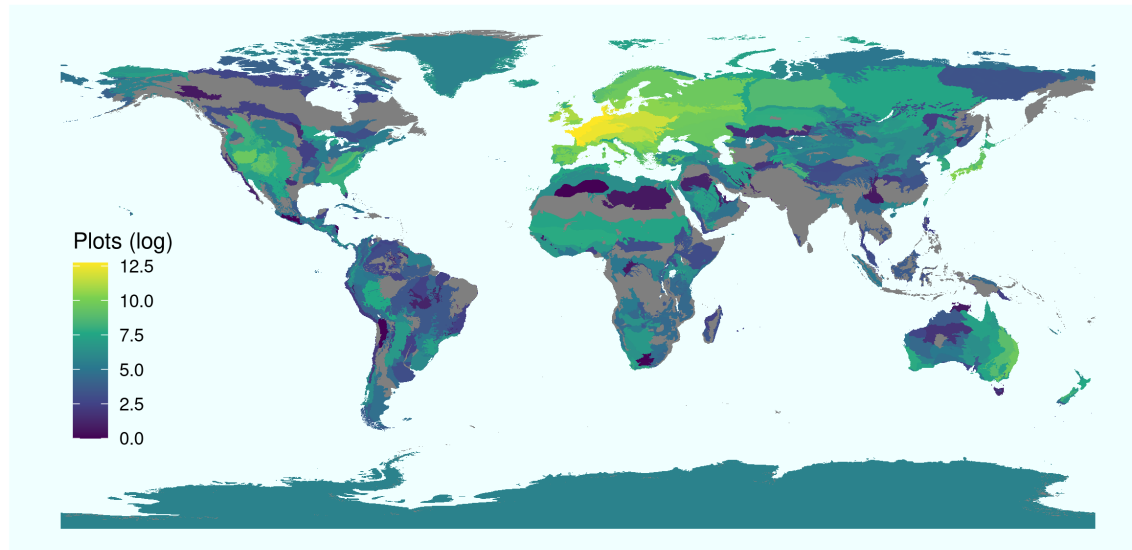
Plots per ecoregion



Why? Biodiversity?



Plots per ecoregion



Why? Biodiversity?

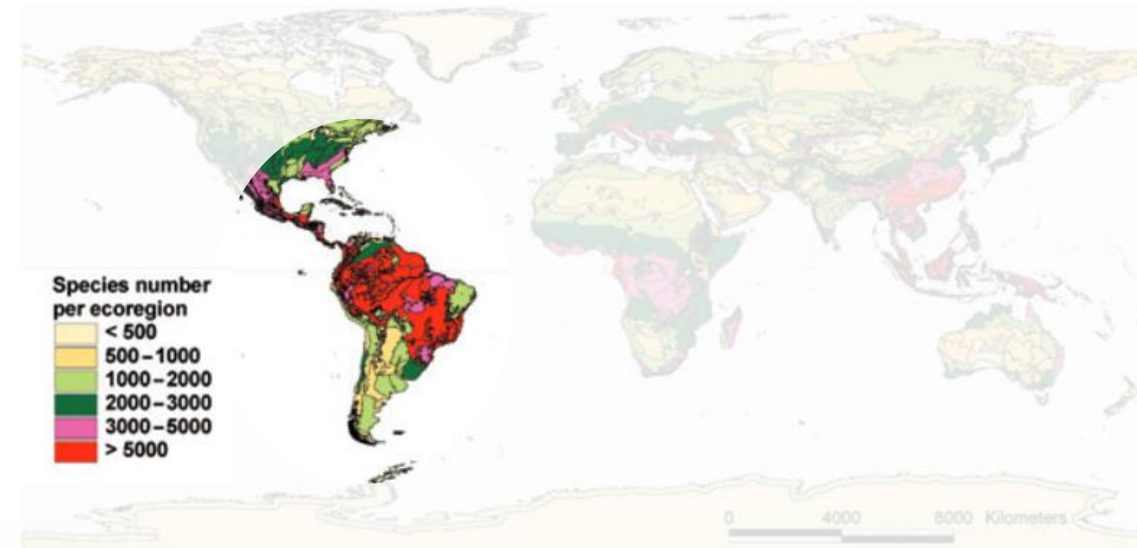


Plots per ecoregion

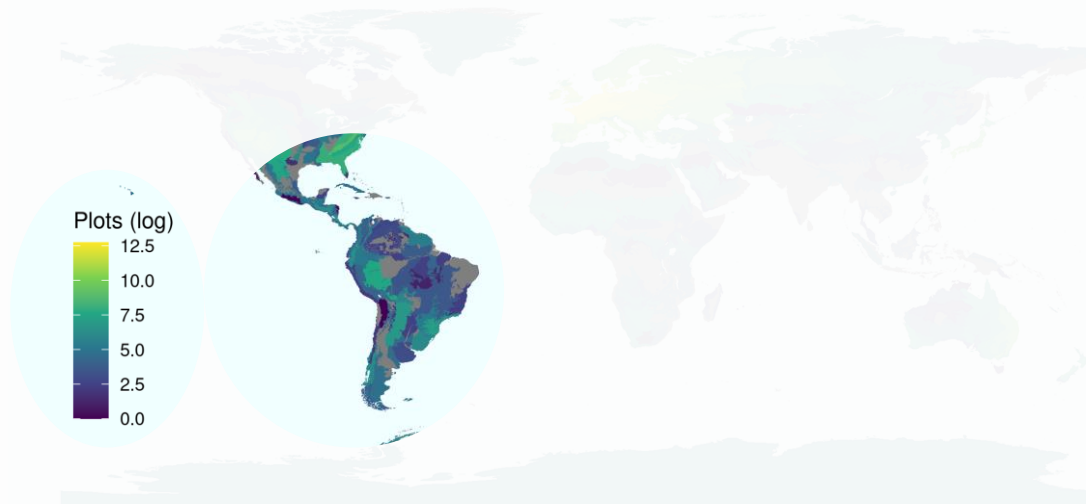


Latin America and the Caribbean

- 15,828 plots
- 0.80% of all plots included
- 109 ecoregions represented



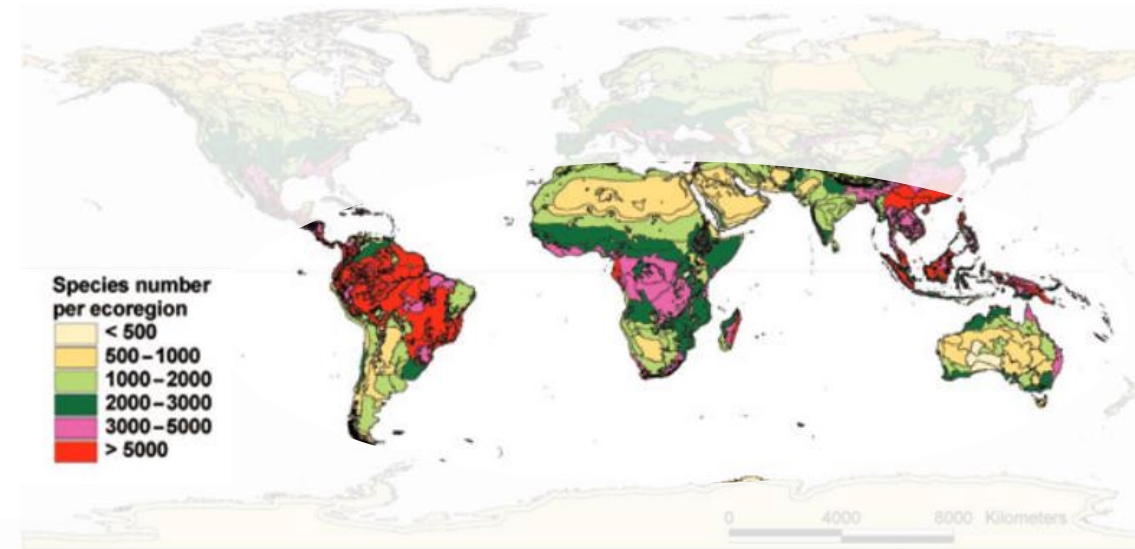
Plots per ecoregion



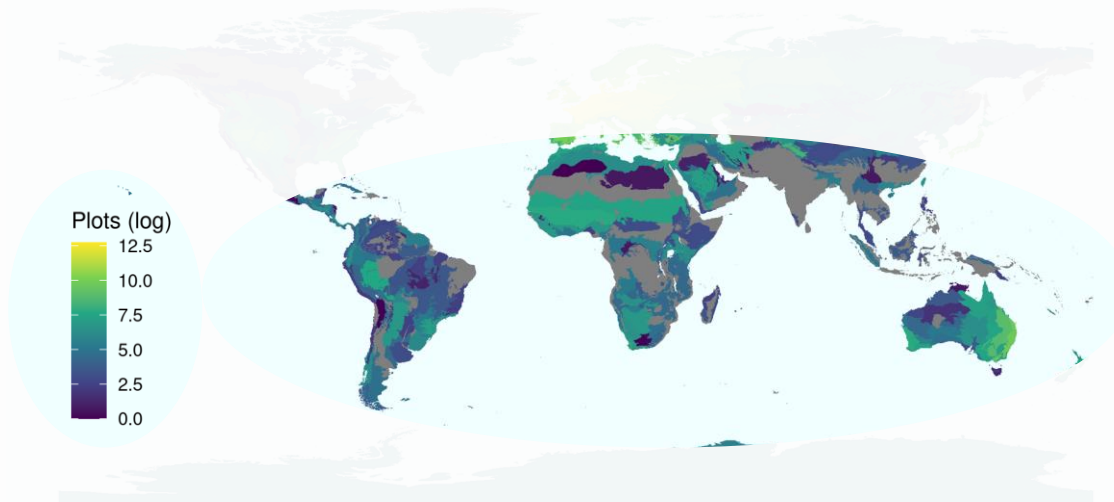
- 179 ecoregions
- 118,308 species of vascular plants
- 31% of all plant species
- 7 biodiversity hotspots (28%)

Global South

- 135,859 plots
- 6.88% of all plots included
- 270 ecoregions represented



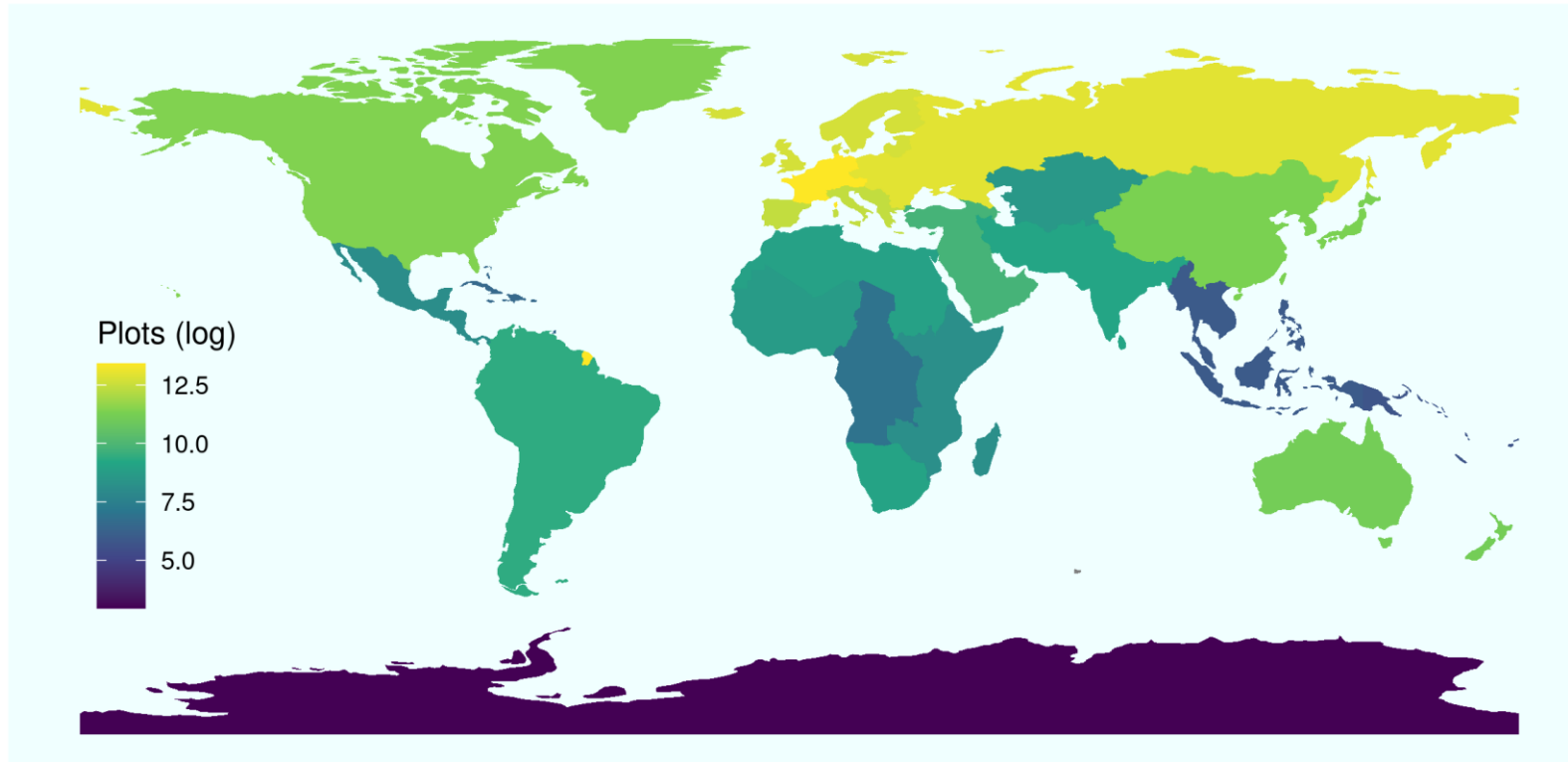
Plots per ecoregion



- 508 ecoregions
- 224,759 species of vascular plants
- 58% of all plant species
- 22 biodiversity hotspots (88%)

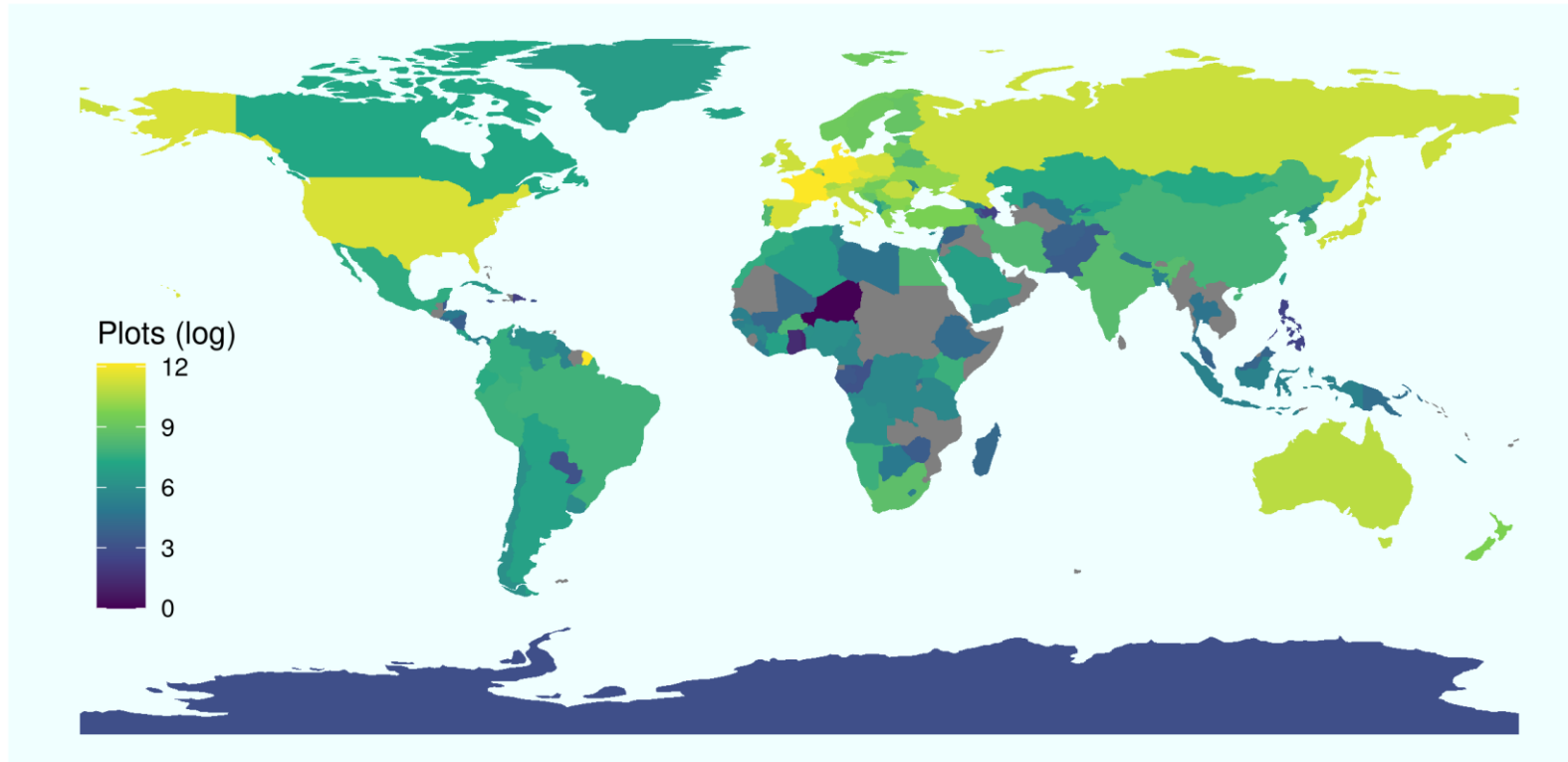
Why? Socioeconomic reasons?

Plots per region (United Nations)

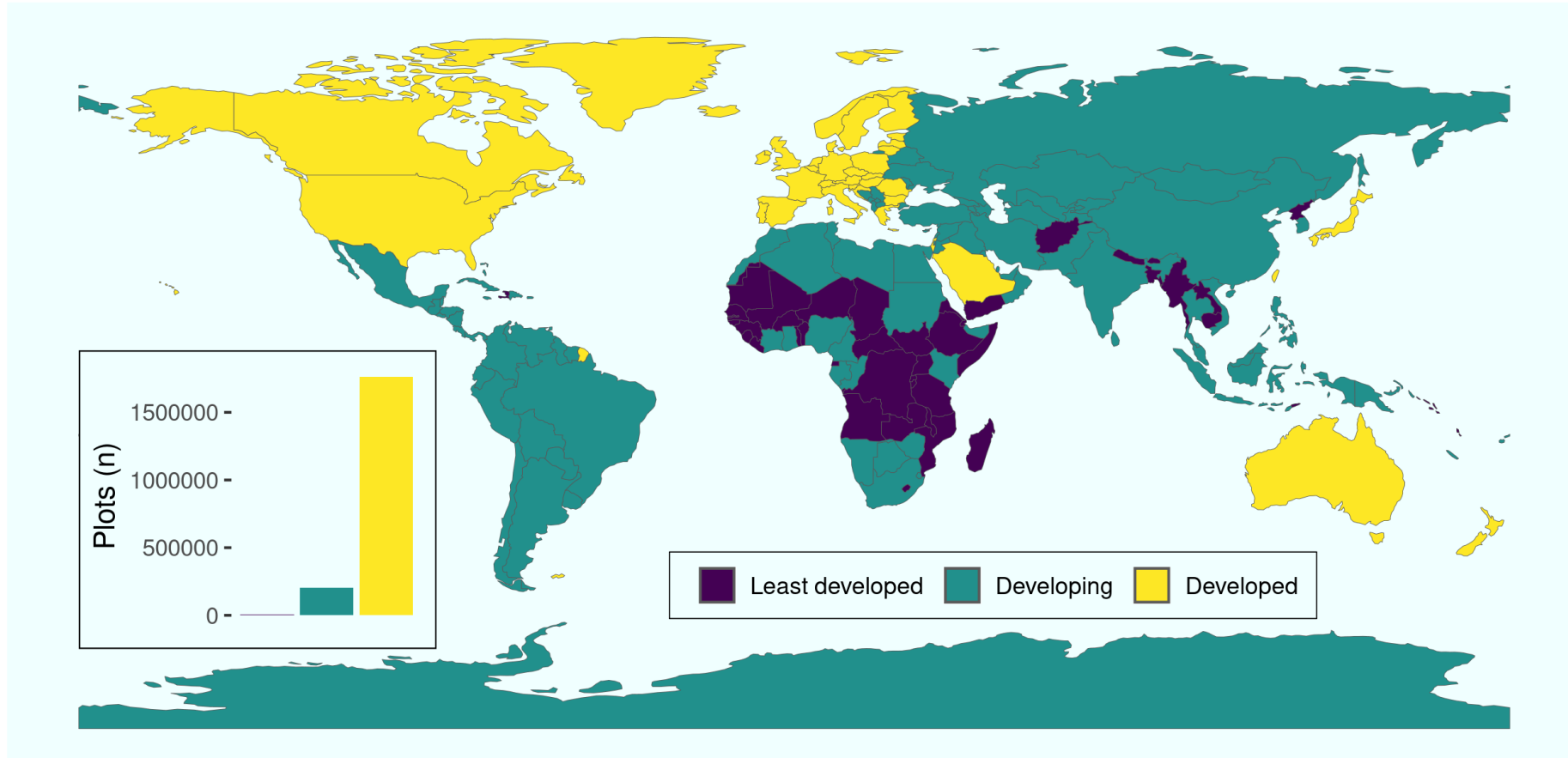


Why? Socioeconomic reasons?

Plots per country

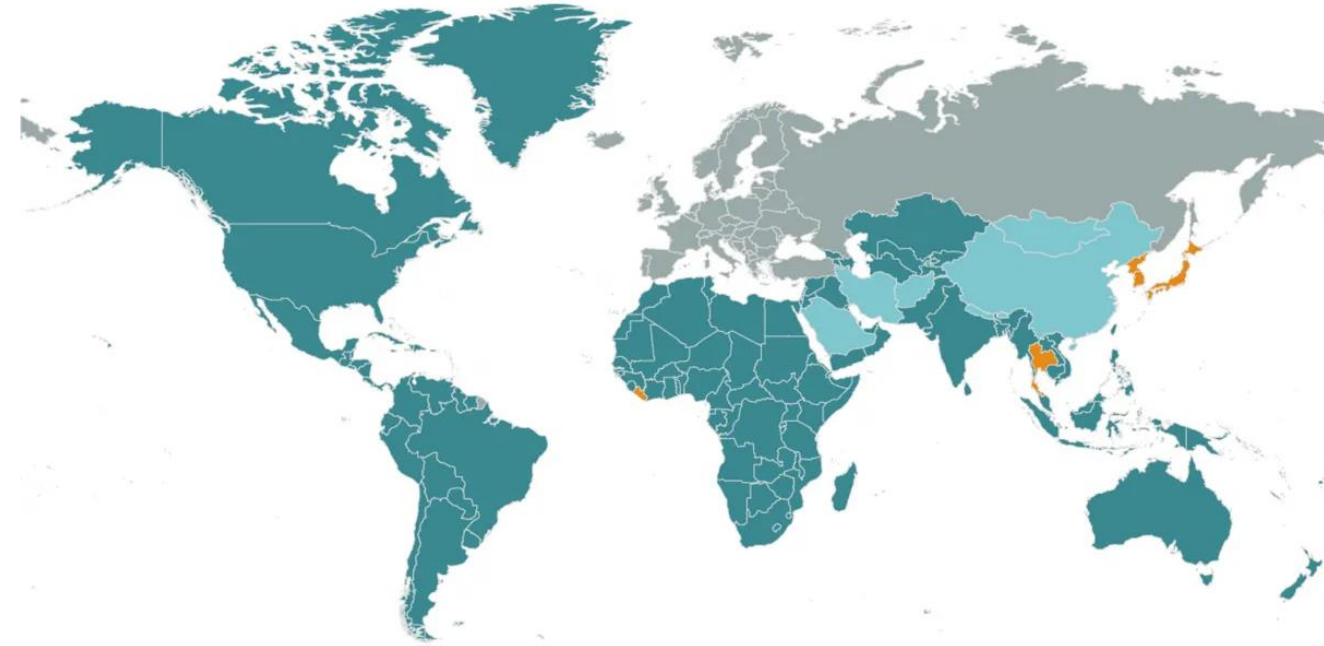


Why? Socioeconomic reasons?



The human factor

- Colonial history

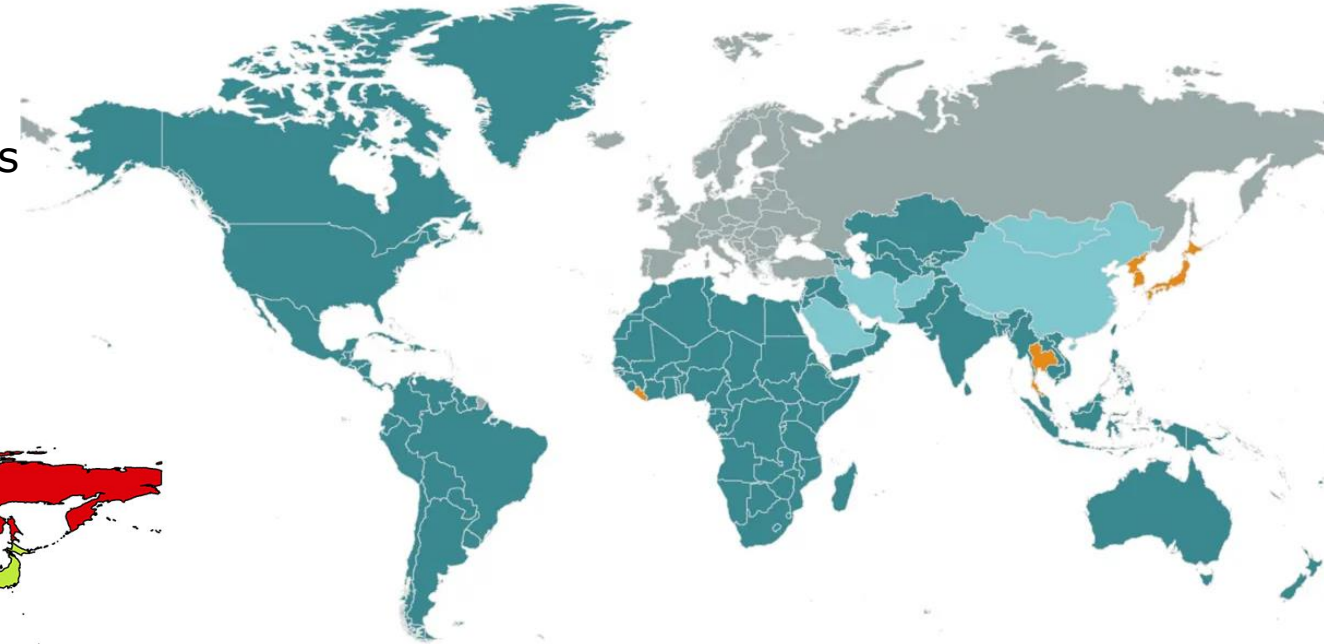
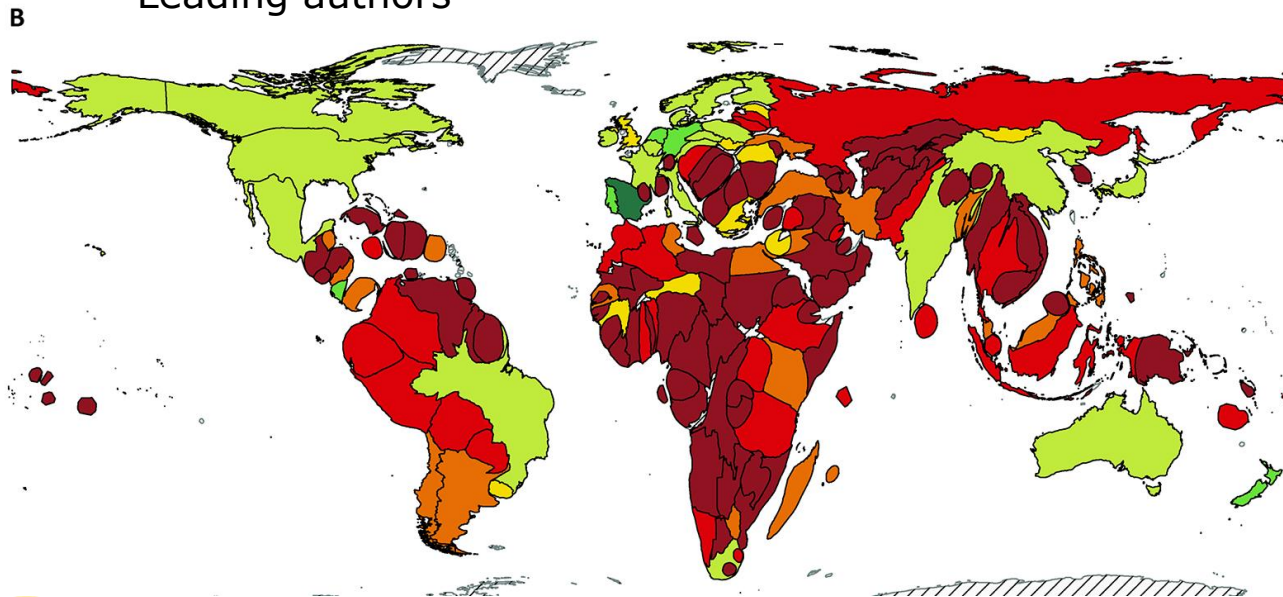


Source: Encyclopedia of Western Colonialism Since 1450.

World101
From the Council on Foreign Relations

The human factor

- Colonial history
- Underrepresentation of Global South researchers
 - Science
 - Biodiversity
 - Editorial boards
 - Leading authors

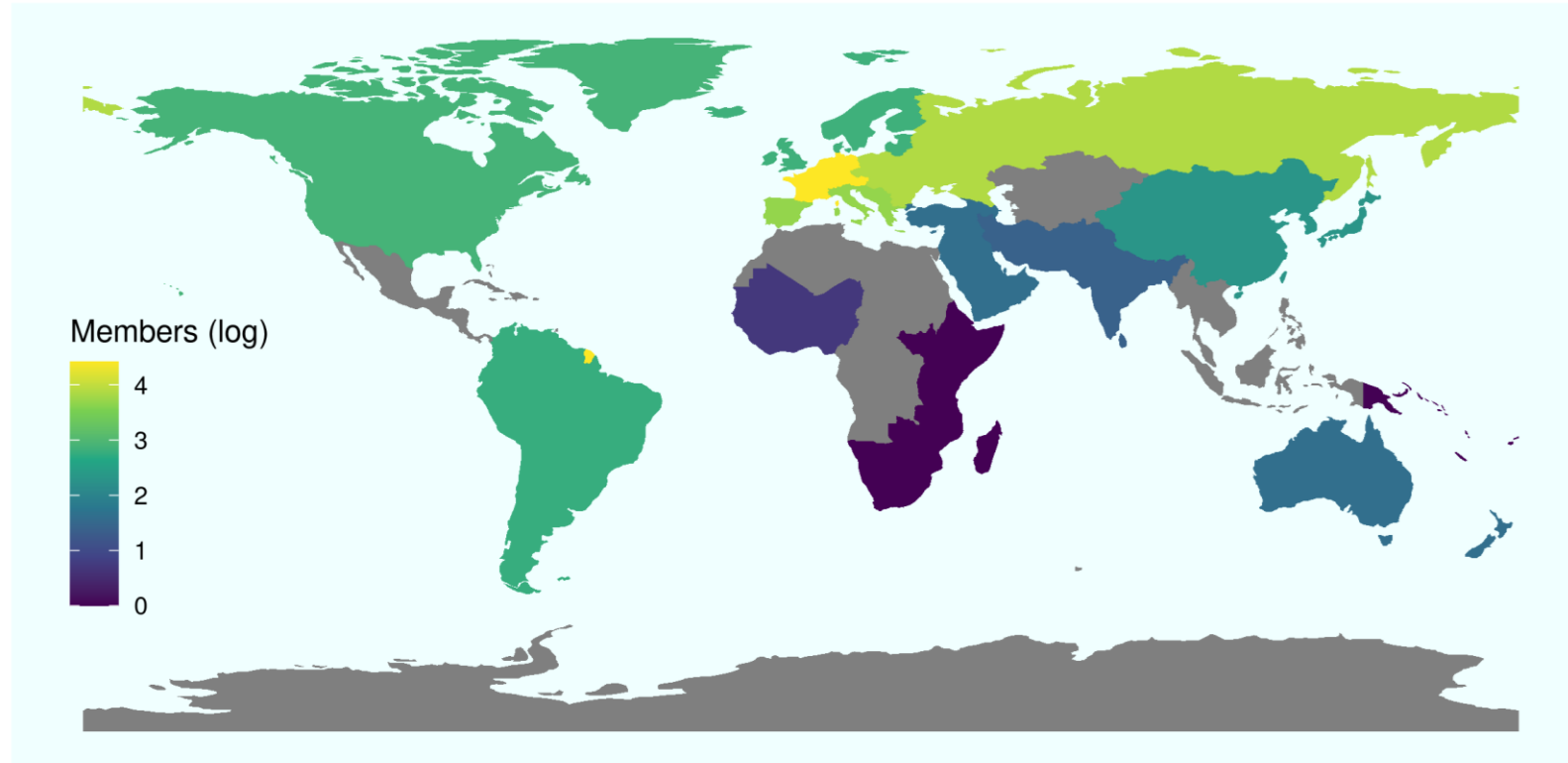


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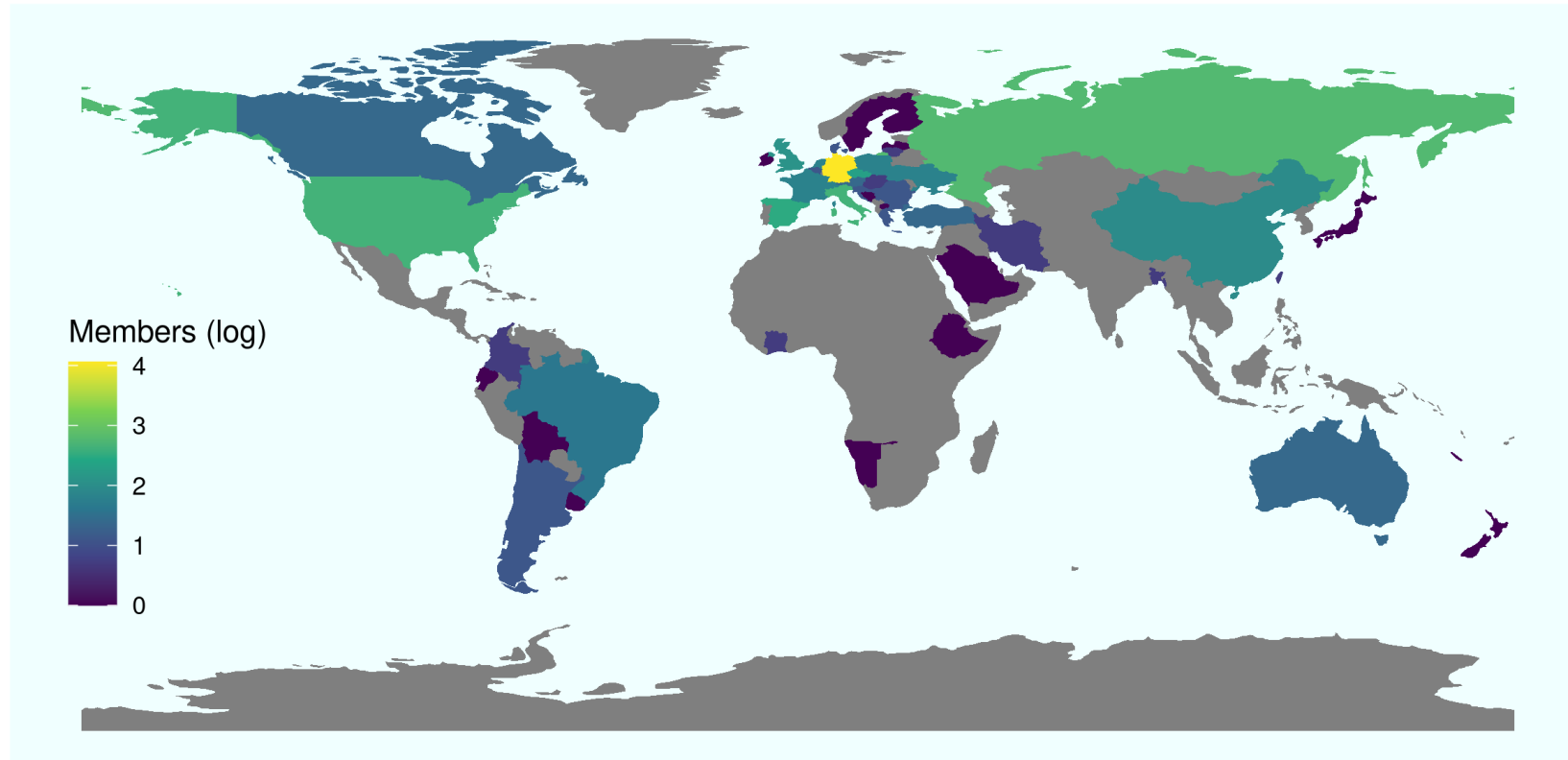
Looking at people behind the data

Members per region (United Nations)

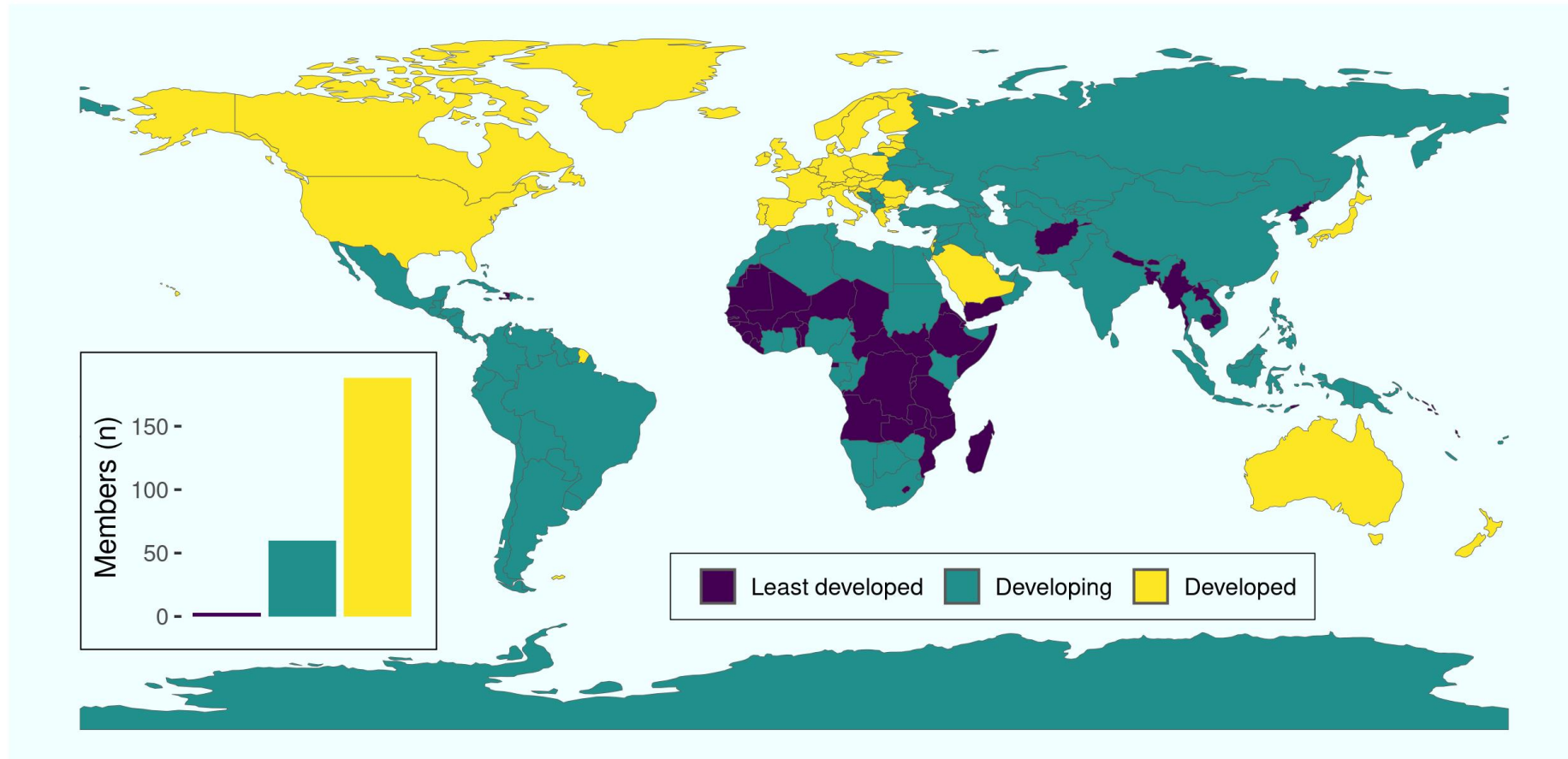


Looking at people behind the data

Members per country

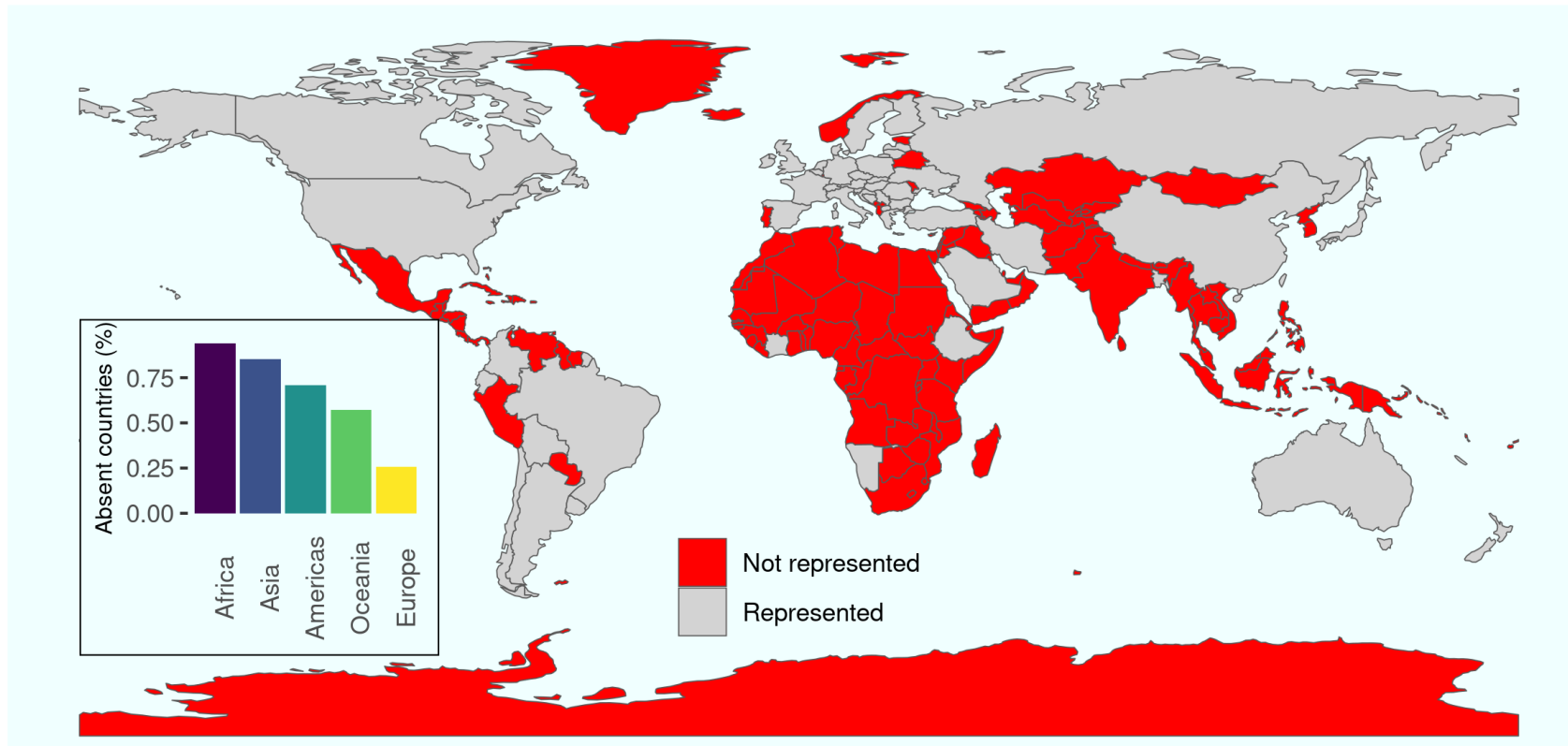


Looking at people behind the data



Where do we miss researchers from?

- Members come only from 51 countries
- 126 countries without members



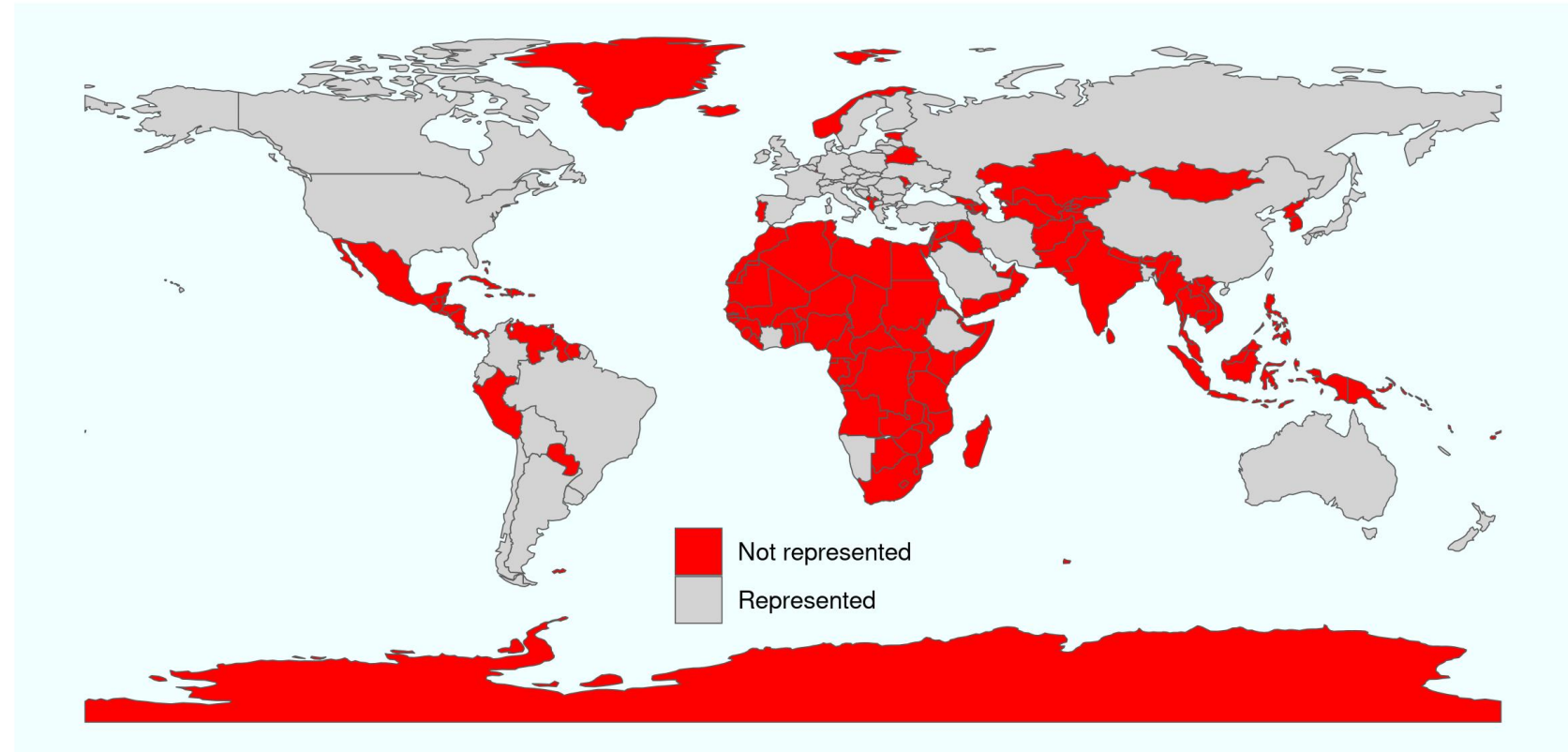
In Latin America and the Caribbean

- Only countries in South America
- Only seven countries with members
 - Argentina
 - Bolivia
 - Brazil
 - Chile
 - Colombia
 - Ecuador
 - Uruguay
- 22 countries with no member



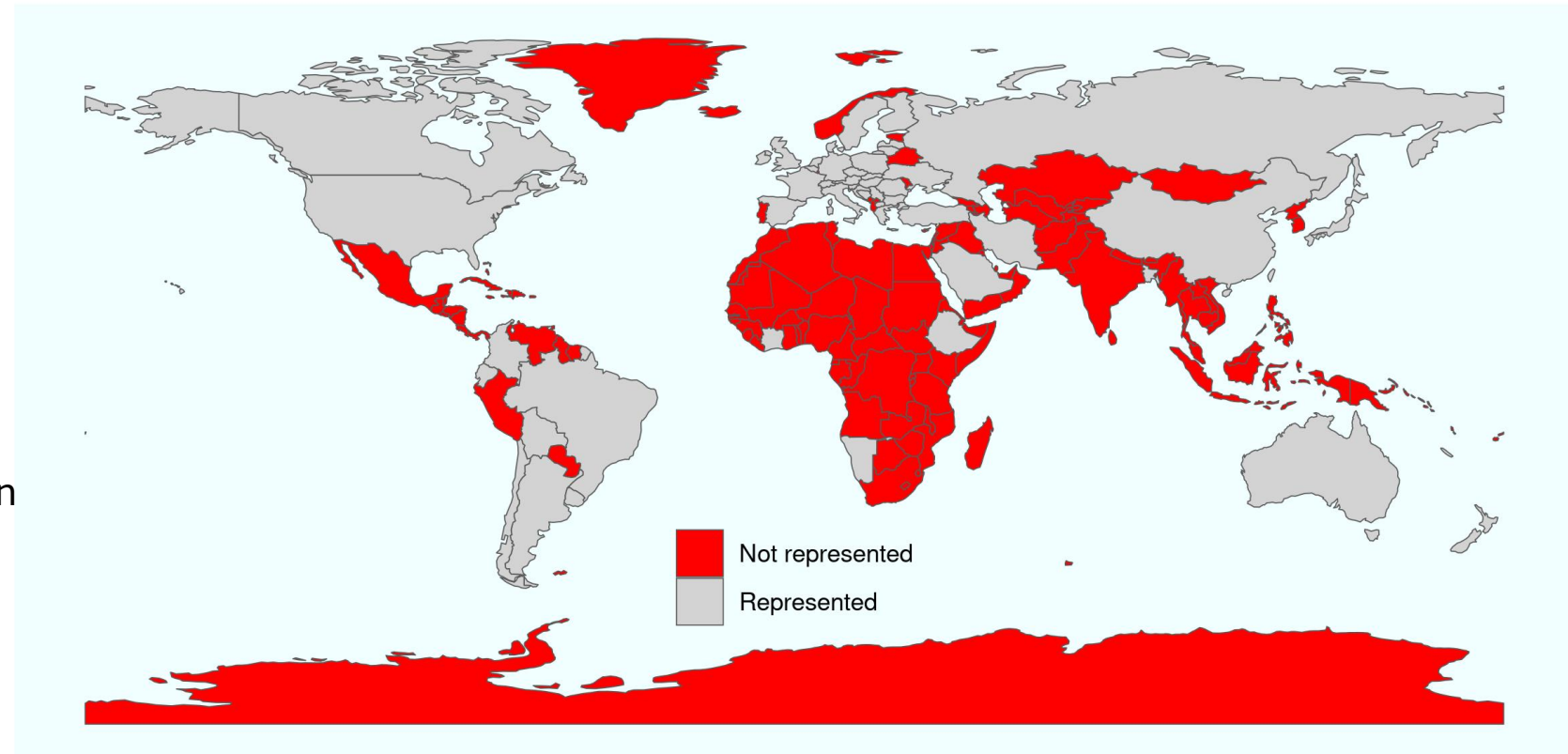
A call for researchers from the Global South

- Community-level data (plots)
- Desirable data:
 - Hundreds of plots
 - Georeferenced plots
 - Species identification
 - Abundance data



A call for researchers from the Global South

- Community-level data (plots)
- Desirable data:
 - Hundreds of plots
 - Georeferenced plots
 - Species identification
 - Abundance data
- Acceptable data:
 - Few dozen plots
 - Less precise spatial information
 - **Species identification**
 - Presence/absence data





Benefits

- Development of science as global matter
- Decreases in biases of data, people and regions
- Fostering of meaningful horizontal collaborations
- Worldwide network of researchers
- TURBOVEG2 database

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**Global Ecology
and Biogeography**

A Journal of
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DATA ARTICLE |  Open Access |  

Sabatini et al. (2021)

sPlotOpen – An environmentally balanced, open-access, global
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Bruelheide et al. (2018)

Global trait–environment relationships of plant communities

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Sabatini et al. (2021)

sPlotOpen – An environmentally balanced, open-access, global dataset of vegetation plots



Haelewaters et al. (2021); Adame (2021); Nuñez et al. (2021); Hennekens & Schaminée (2001)

Guaranties

- Data ownership
- Limited use of data: continental and global analyses

Governance and Data Property
Rules of the sPlot Consortium



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Join us!

iÚnete a nosotros!

Junte-se a nós!

Let's discuss your data and the possibilities ahead!

Catch me up for a chat!

Meeting on Thursday, **13:00h at room 222**

Zoom link:

<https://us05web.zoom.us/j/85890988305?pwd=UXIzbnRxcVN4b01BV3YzNnVmdDBnUT09>

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www.idiv.de/en/splot



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