

Global Estimates of Effective Conservation

Timothy Boucher, Jonathan Hoekstra, Michael
Jennings, Jamison Ervin



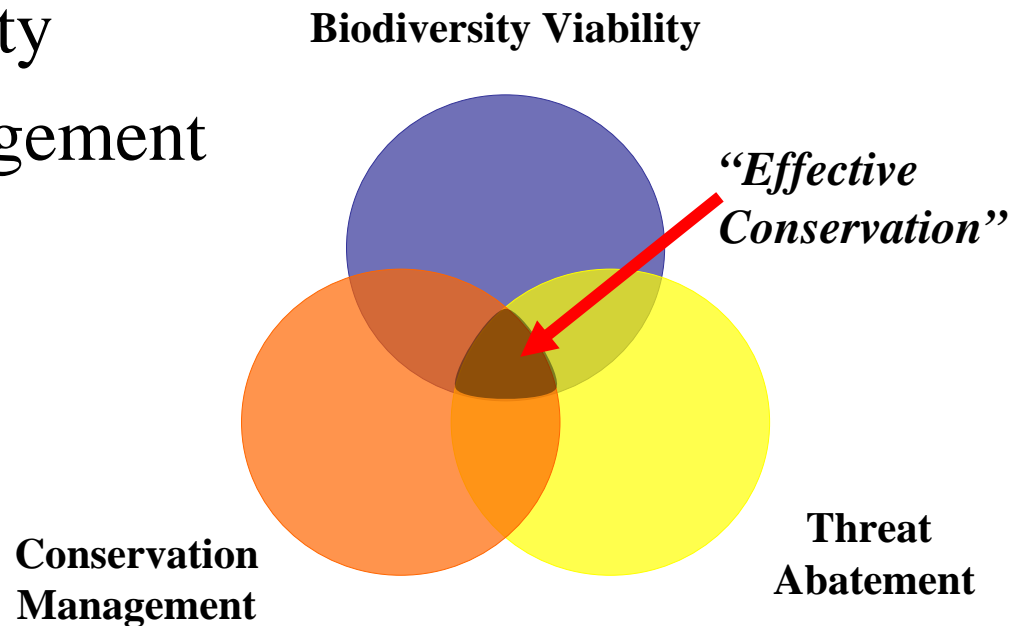
SAVING THE LAST GREAT PLACES ON EARTH

How Much is Protected?

- Using a simple estimate (“legal protection”)
 - Terrestrial 2006 WDPA current estimate of **~12%**
Protection (IUCN I-IV: **~4.5%**)
 - Doesn’t exclude “paper parks”
 - Ideally we would have effectiveness measures – such as conservation management status

How to get a Global Estimate?

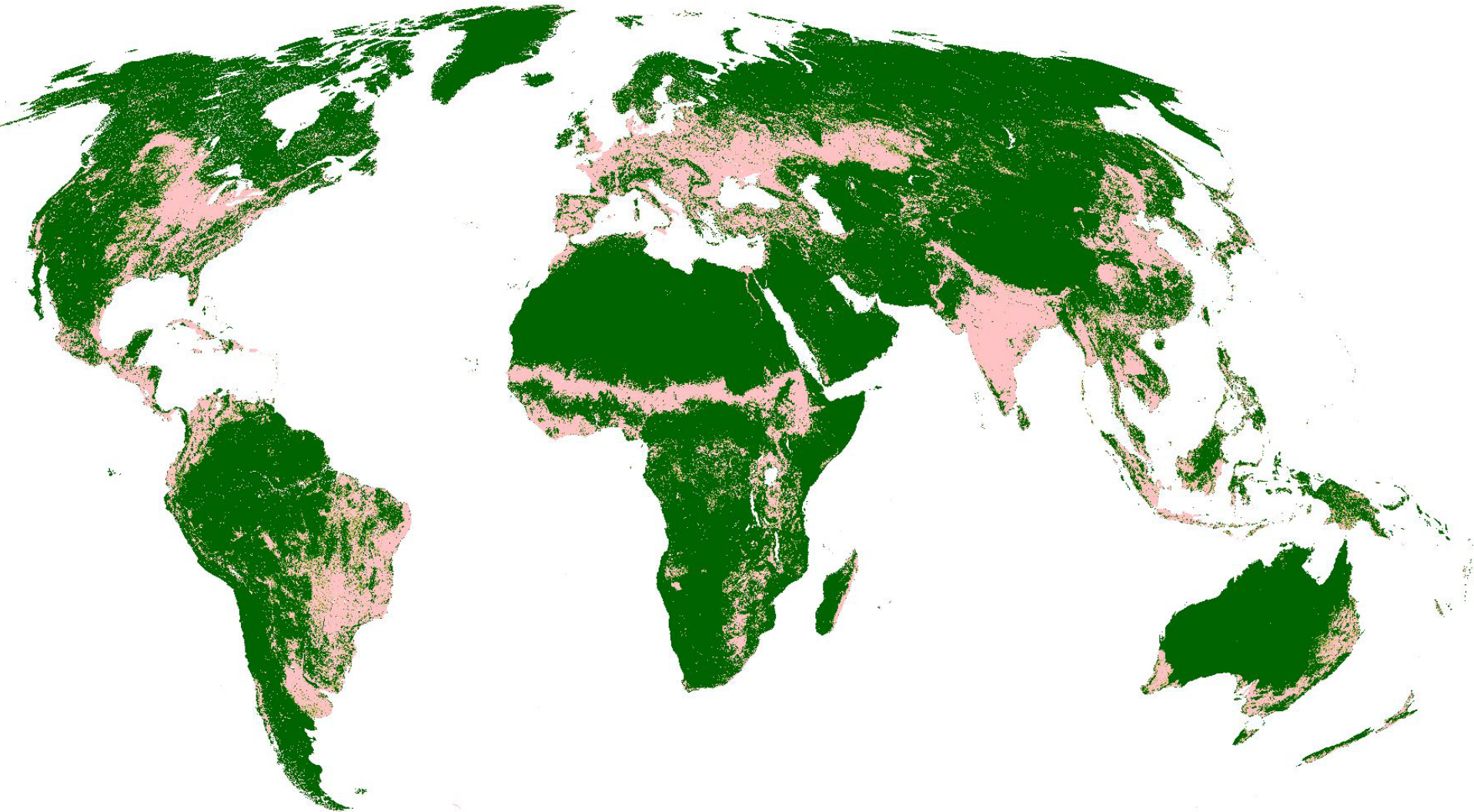
- Measure “Effective Conservation” (EC) by using 3 variables
 - Biodiversity Viability
 - Conservation Management
 - Threat Abatement



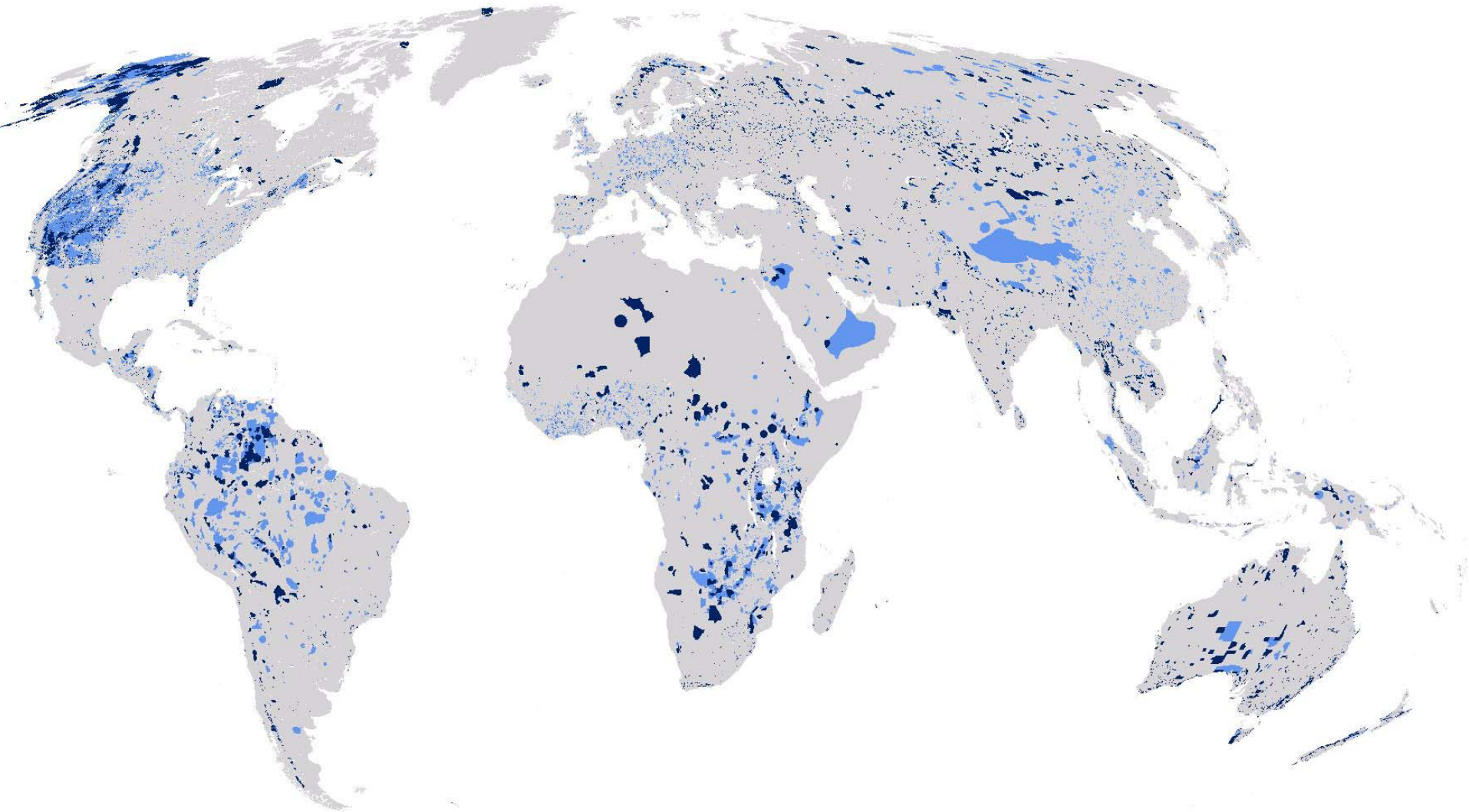
Effective Conservation: the combination of three conditions: species, natural communities, and ecological systems are viable for the long-term; critical threats to that biodiversity are abated; and effective conservation management is securely in place.

Biodiversity Viability Status

GLC 2000 (modified)

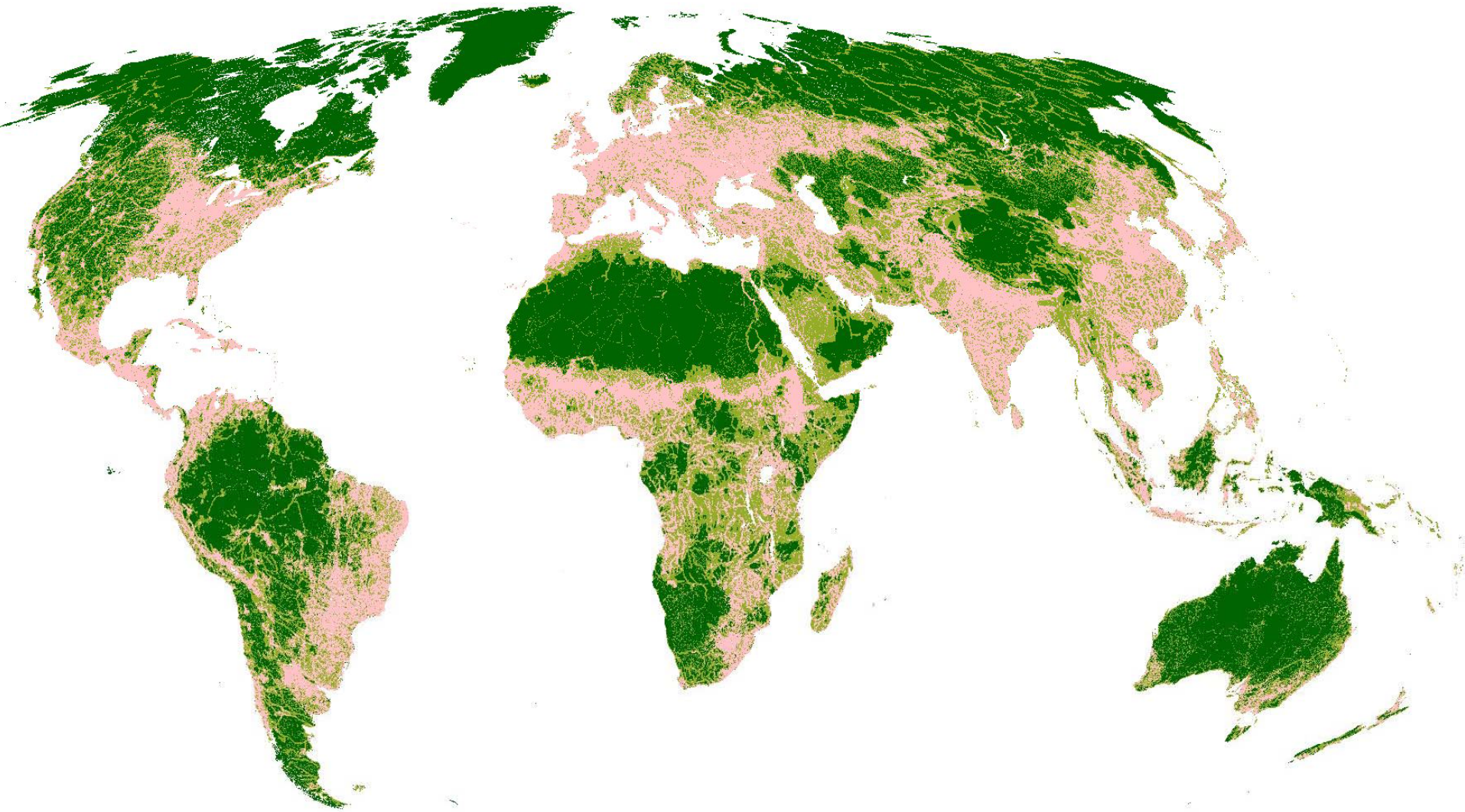


Conservation Management Status (WDPA 2006)



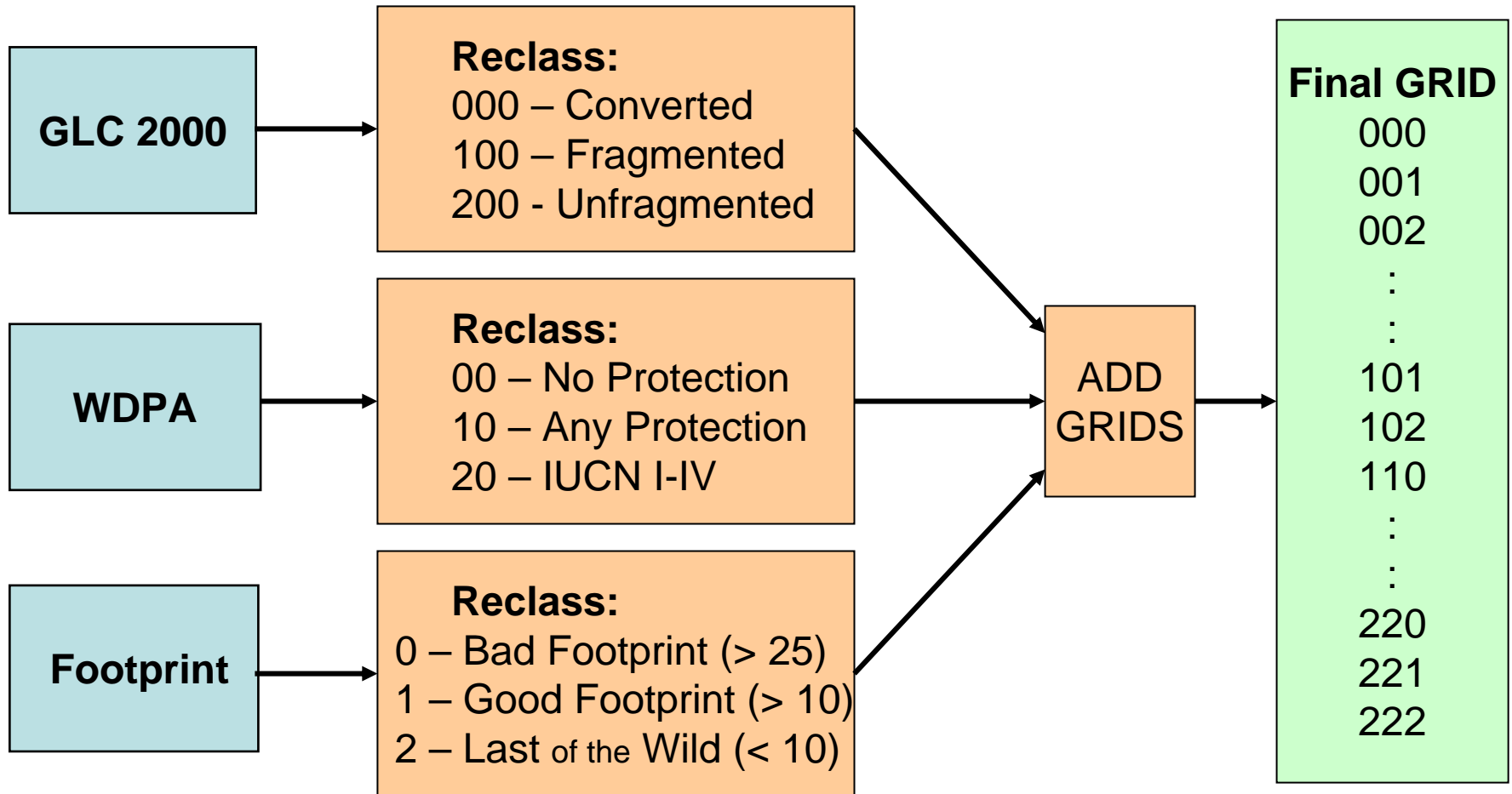
Threat Status

WCS Human Footprint



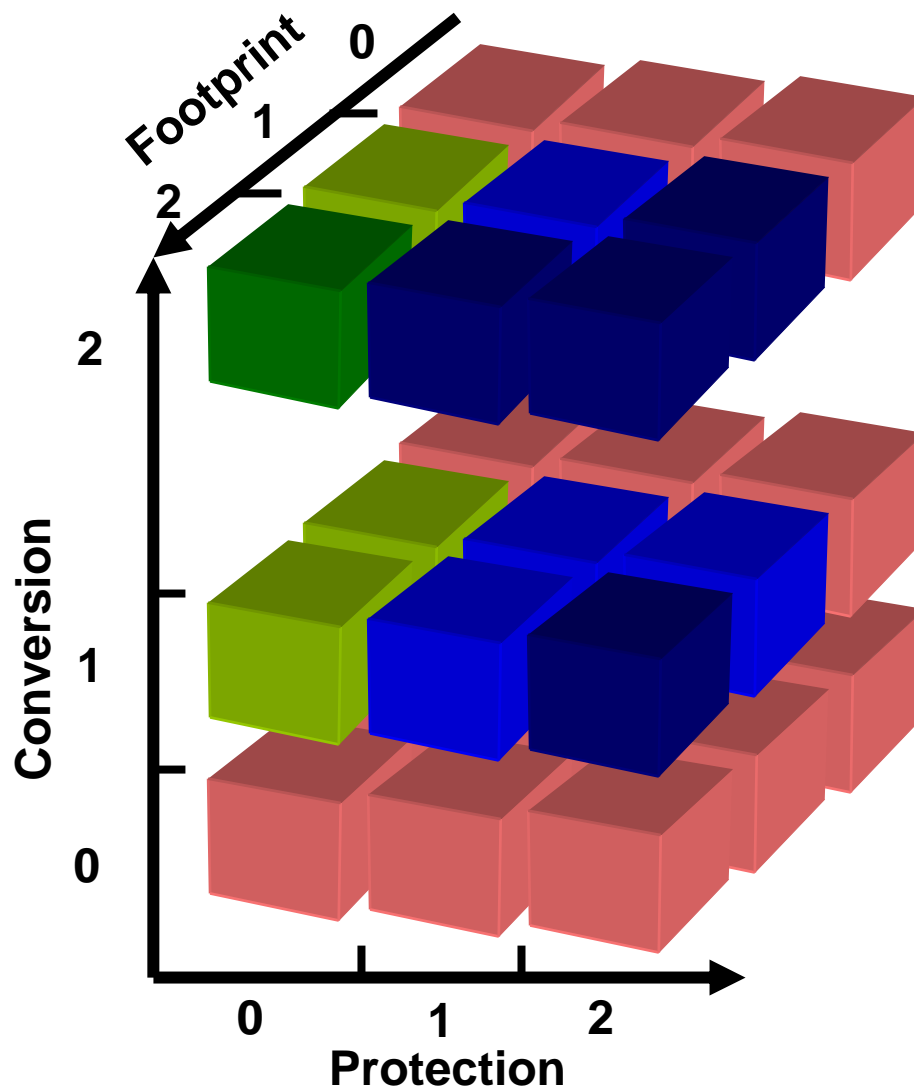
Combining the Layers

Retaining the information

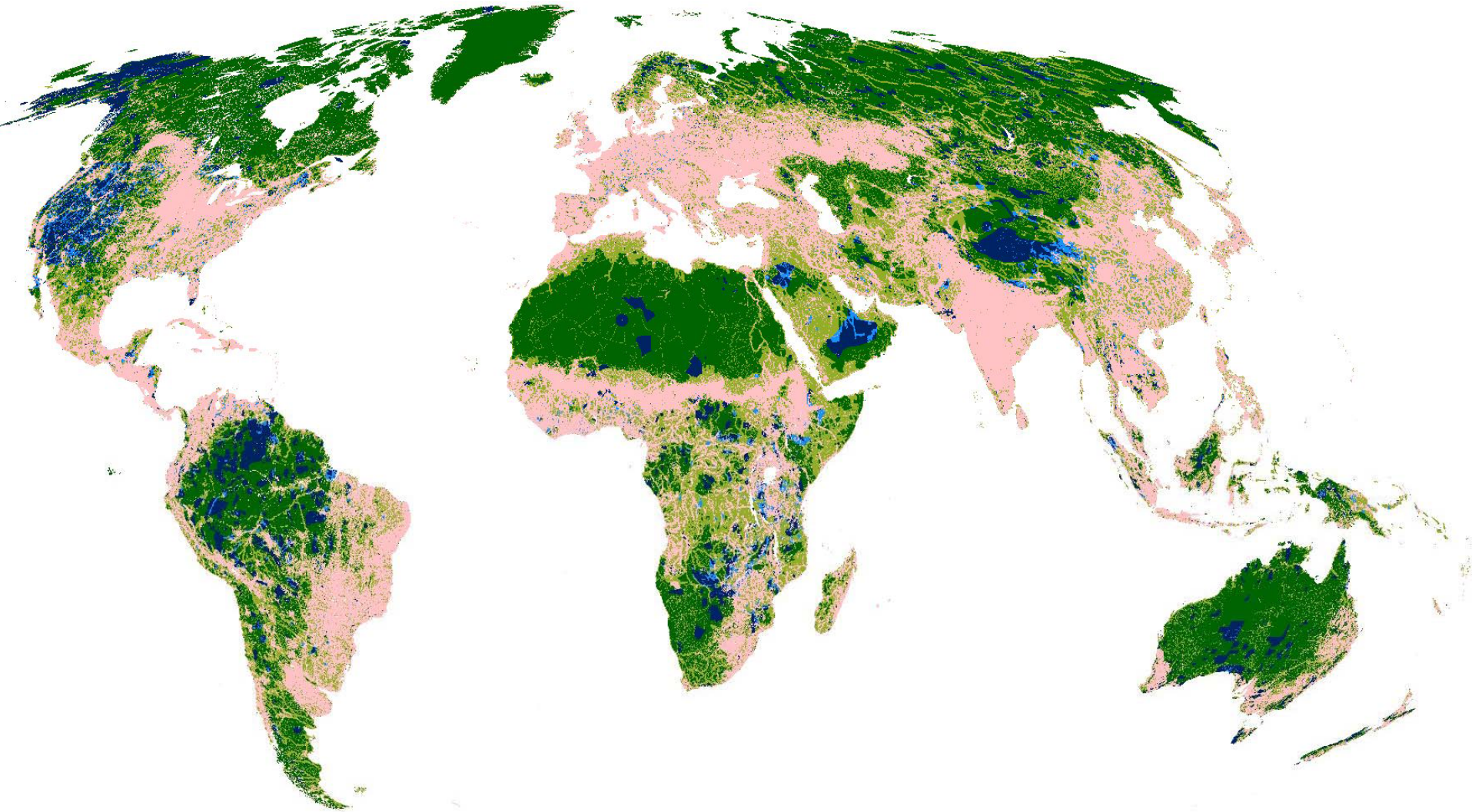


<http://conserveonline.org/workspaces/rmcr.gis/index/data/ec>
(search for: "effective conservation")

Combination



Effective Conservation Map



Results

A world map with various regions shaded in different colors: green, blue, red, and pink. The map is overlaid with a semi-transparent white box containing text. The text is organized into a list with horizontal lines separating the items. The colors of the text match the colors used in the map's shading.

Converted/Bad Footprint = 34.4%

Moderate Potential EC = 24.1%

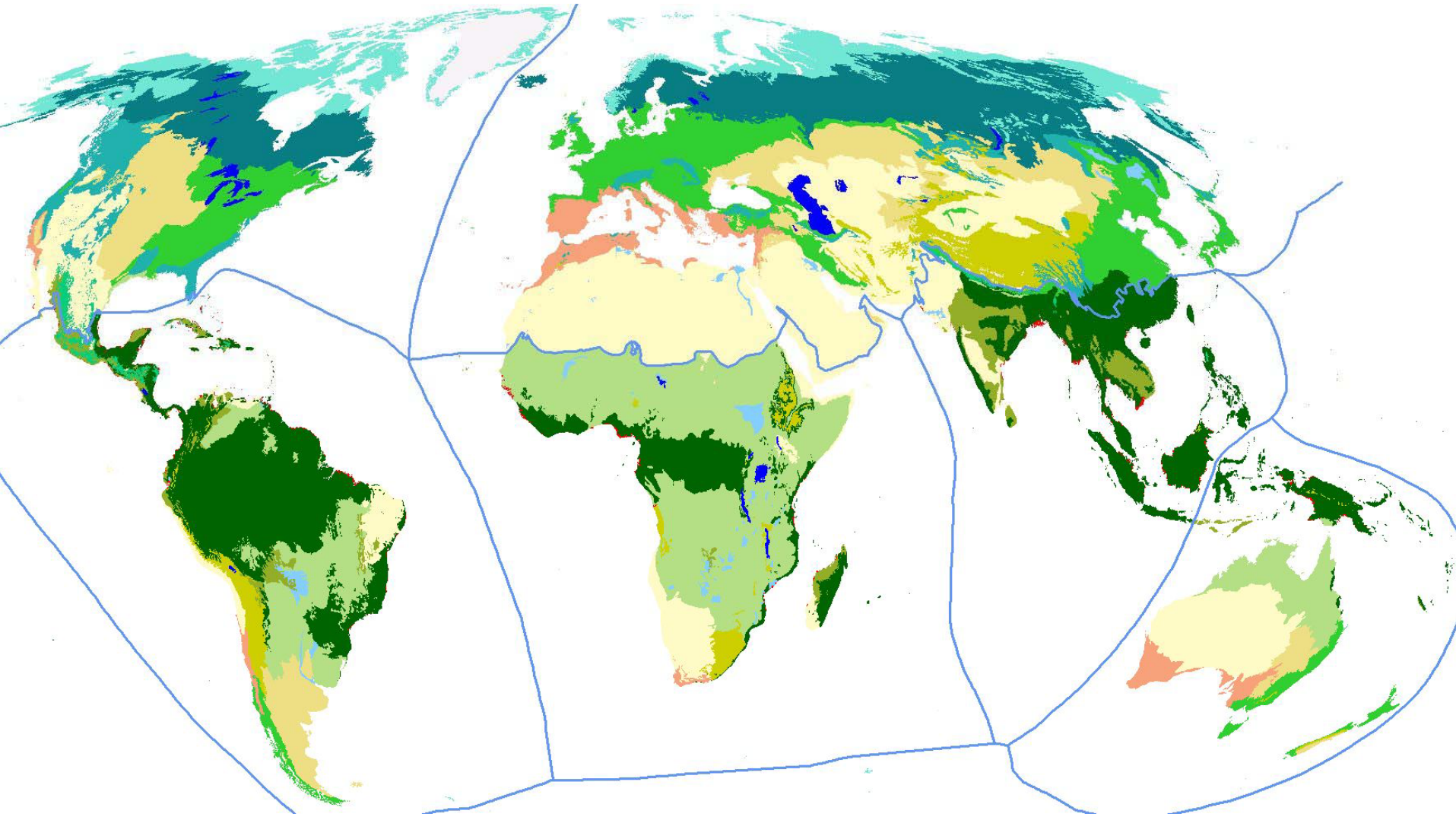
High Potential EC = 32.2%

Moderate EC Status = 3.3%

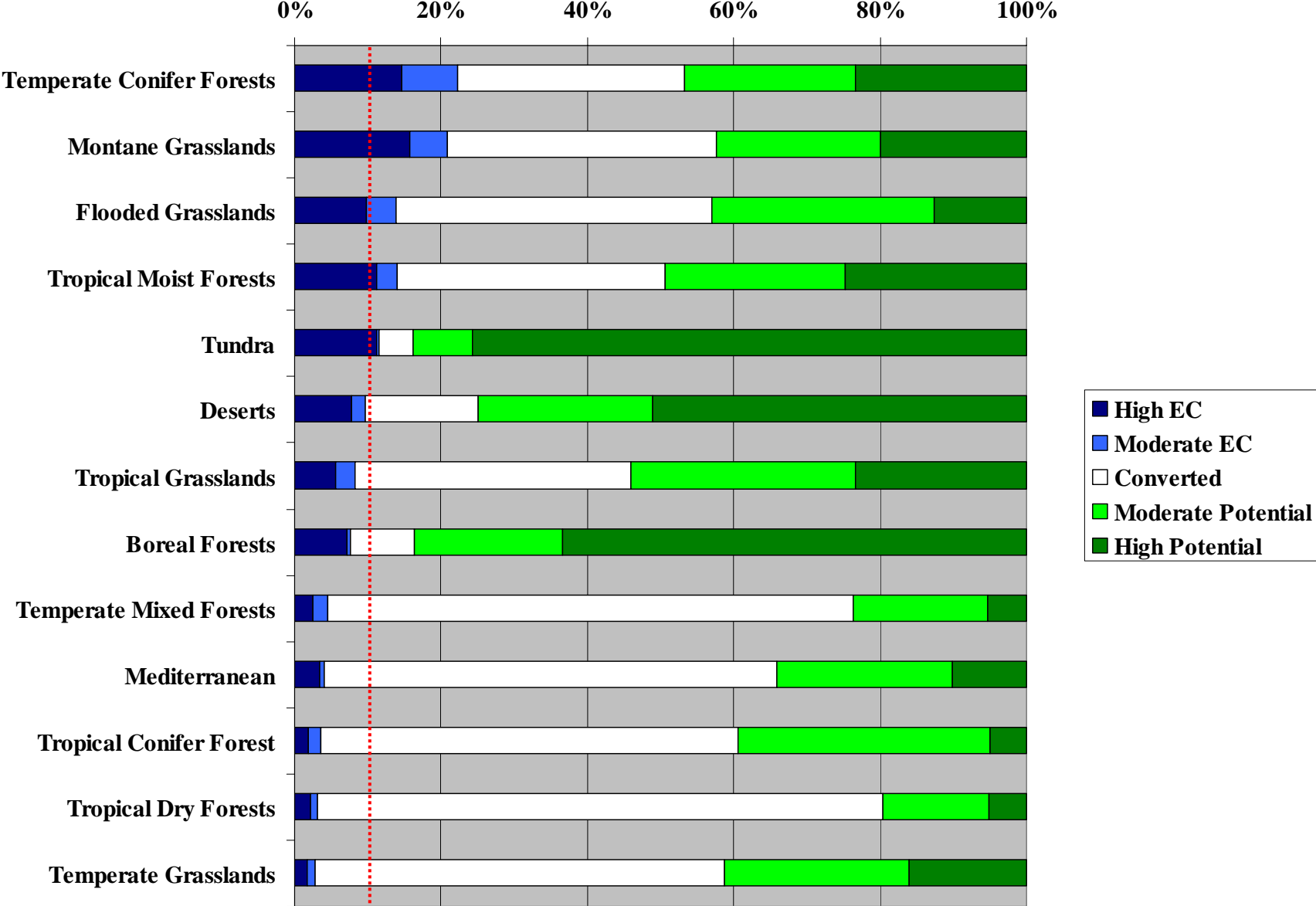
High EC Status = 6.0%

EC – IUCN I-IV = 2.5%

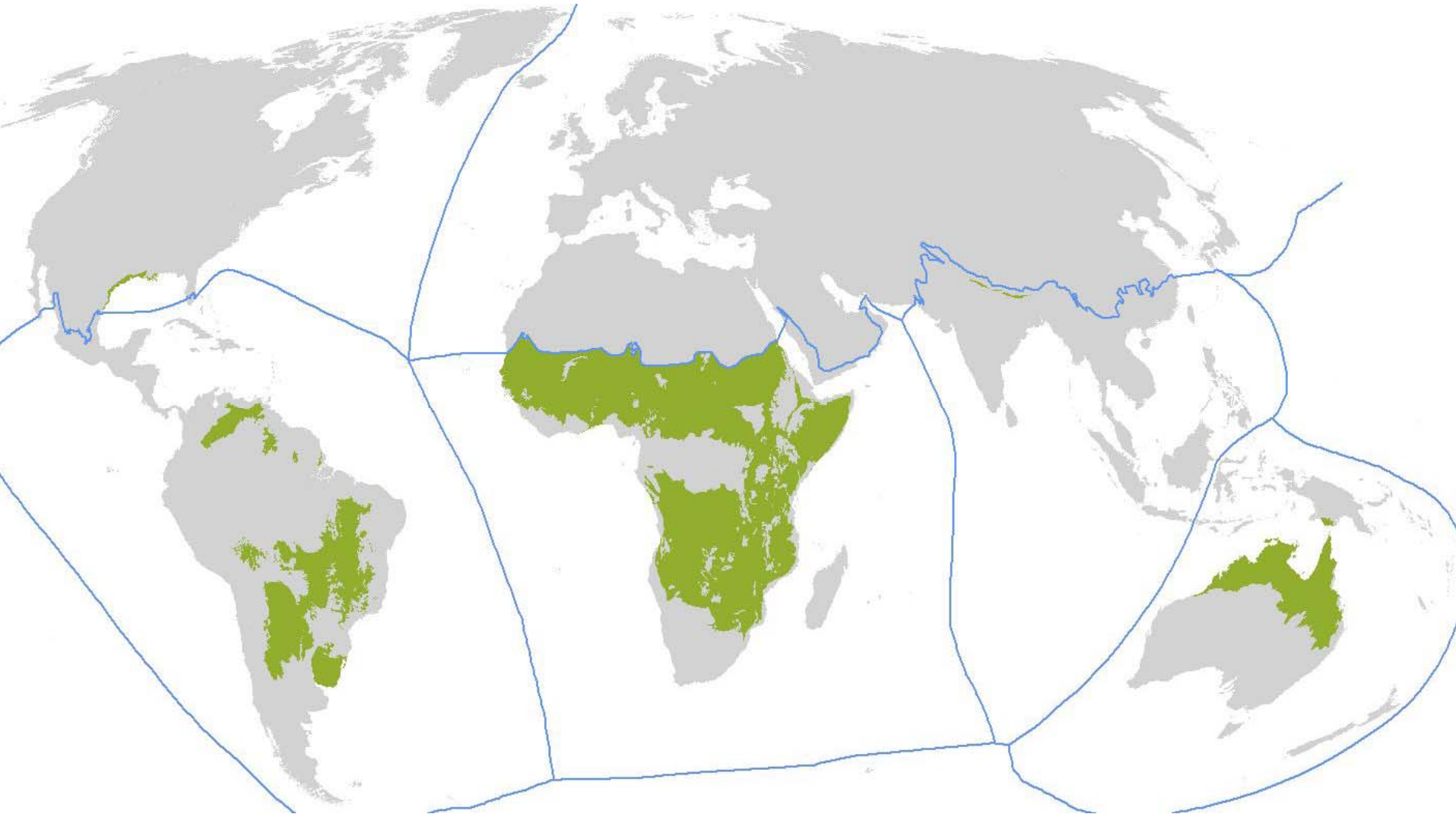
WWF Ecoregions (Biomes and Realms)



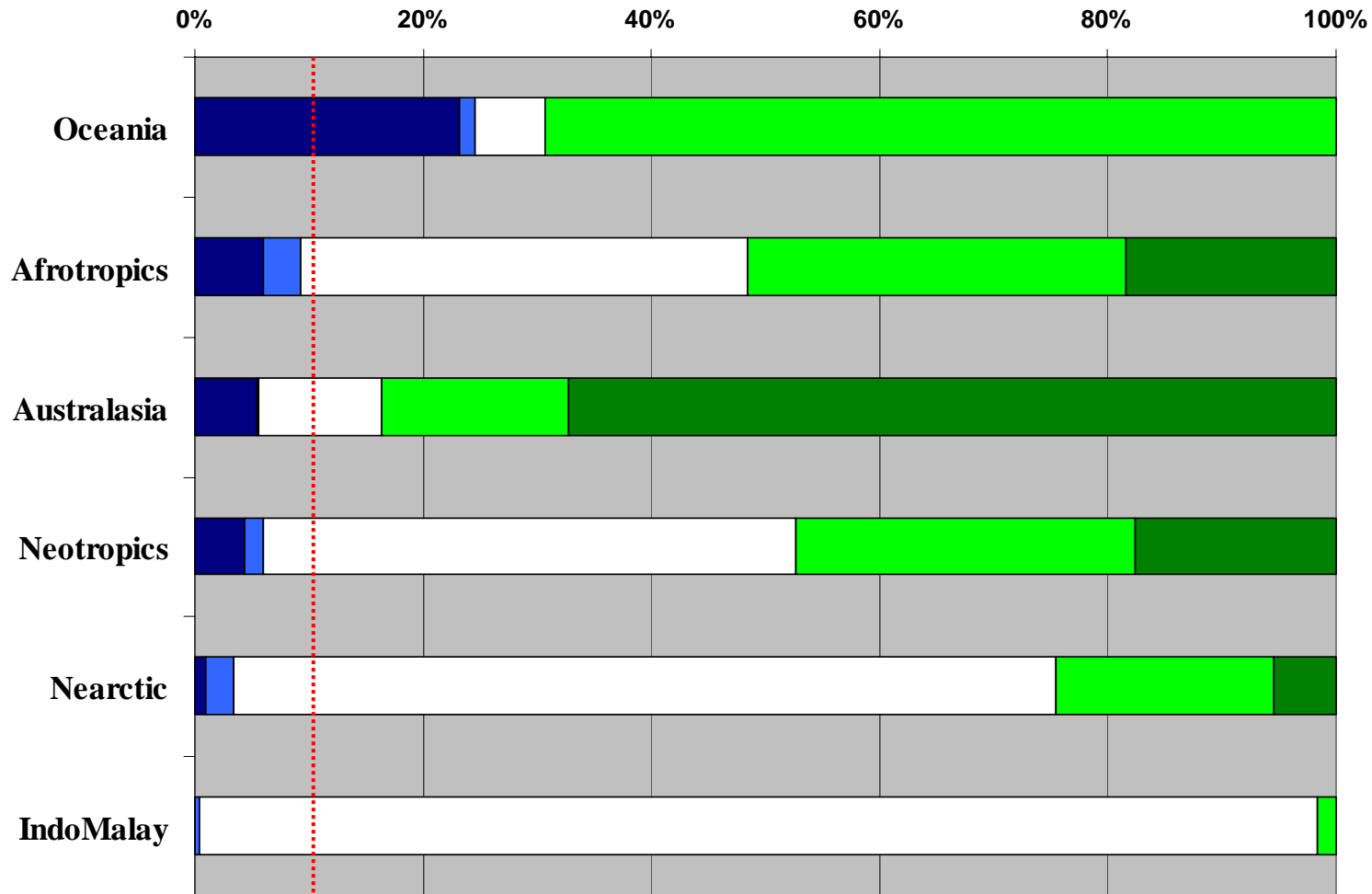
Results by Biome



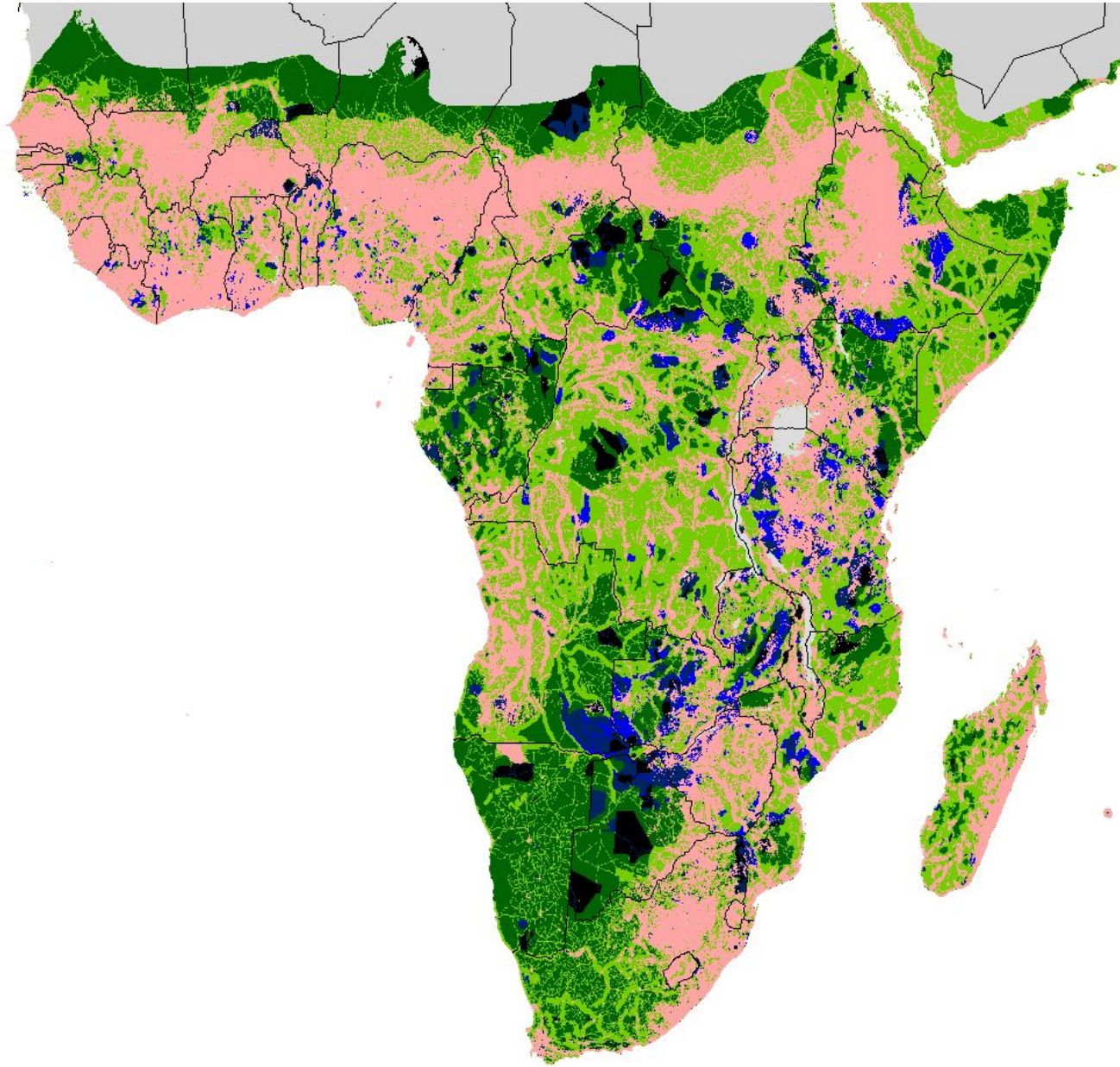
Results – Tropical Grasslands



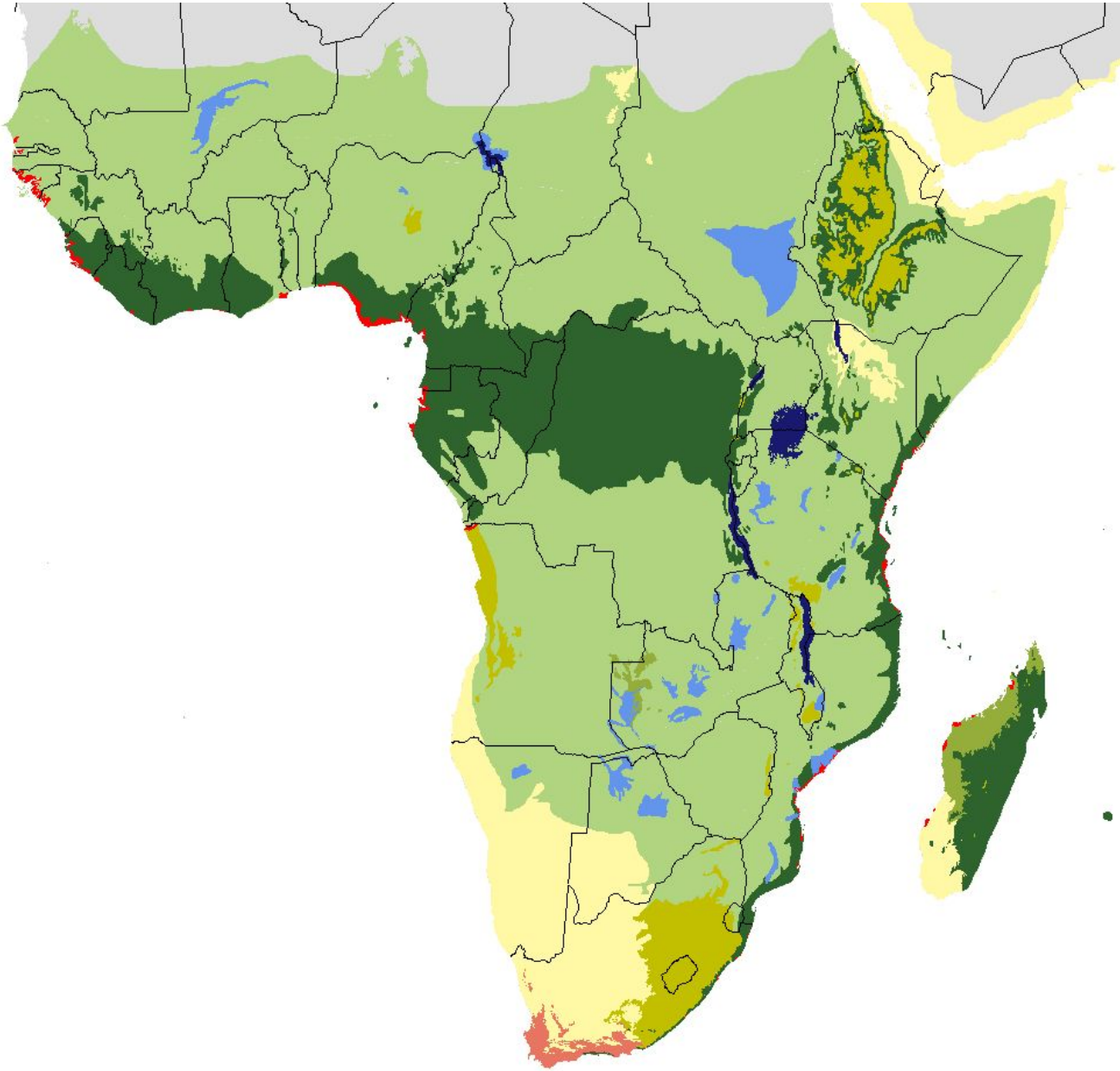
Results – Tropical Grasslands



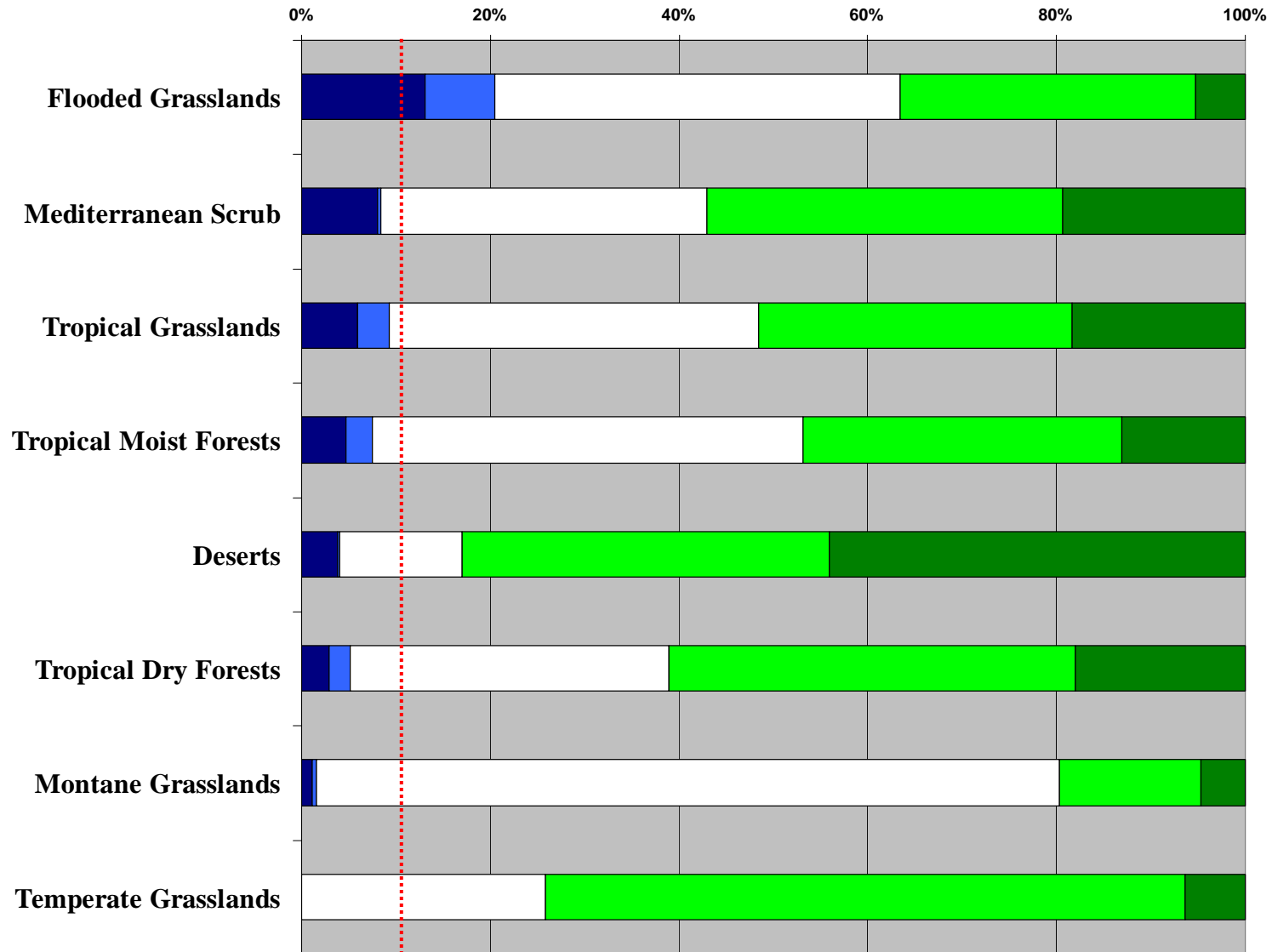
Effective Conservation - Afrotropics



Effective Conservation - Afrotropics



Results – Afrotropics



Conclusions & Questions

- This is a GLOBAL - REALM estimate
- Relative Estimates – for comparison only
finer scale

- Best Available Data (BAD)
- How to adapt to FW?