

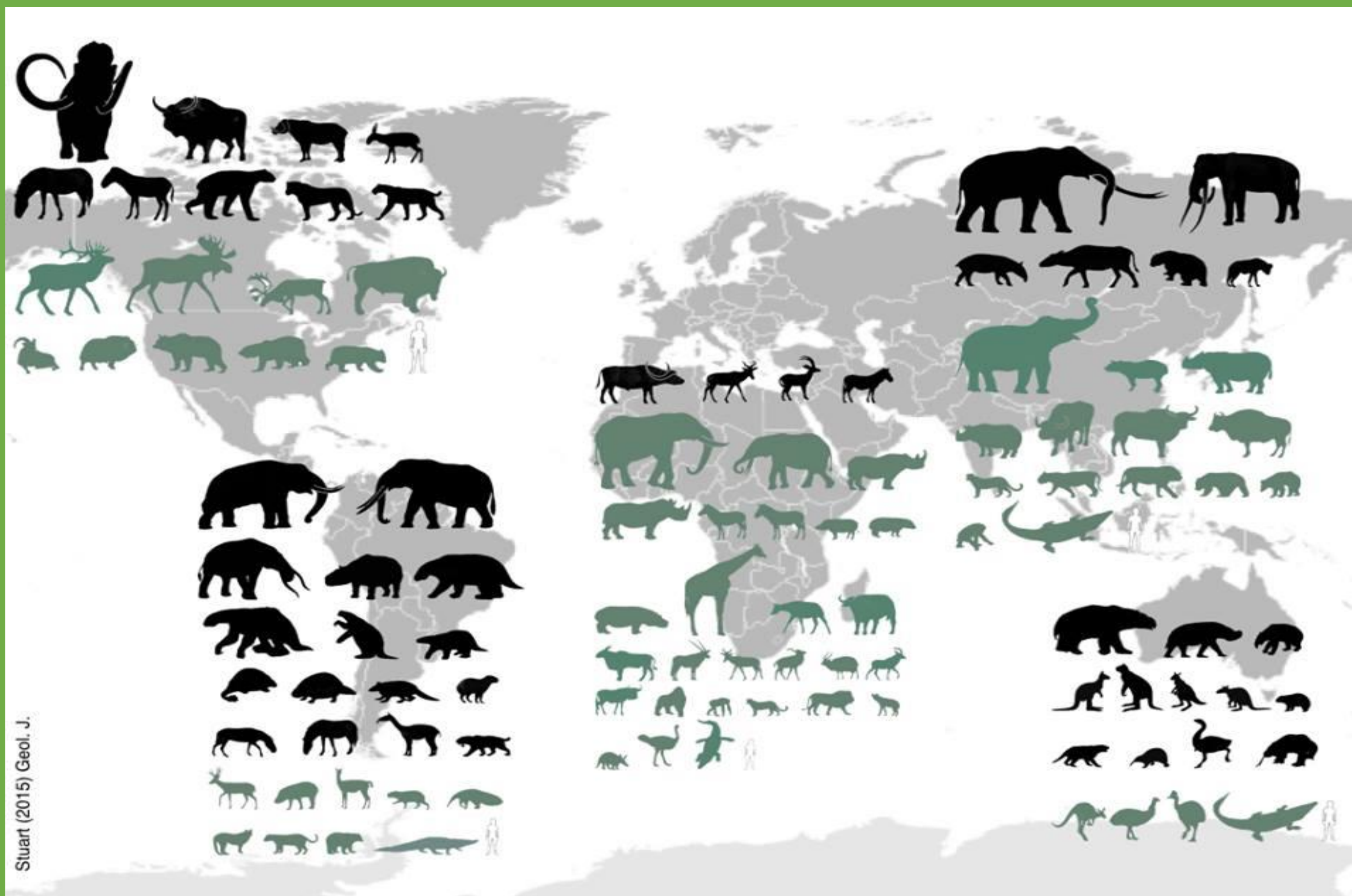
Considering natural baselines when calculating impacts point to a negligible role of grass-fed livestock systems in climate change

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Baselines are widespread in many disciplines, but not in climate related livestock studies.

Livestock baselines consist of **Megaherbivores**, mostly extinct by now.



Open ecosystems (maintained by biomass consumers) more widespread than assumed.

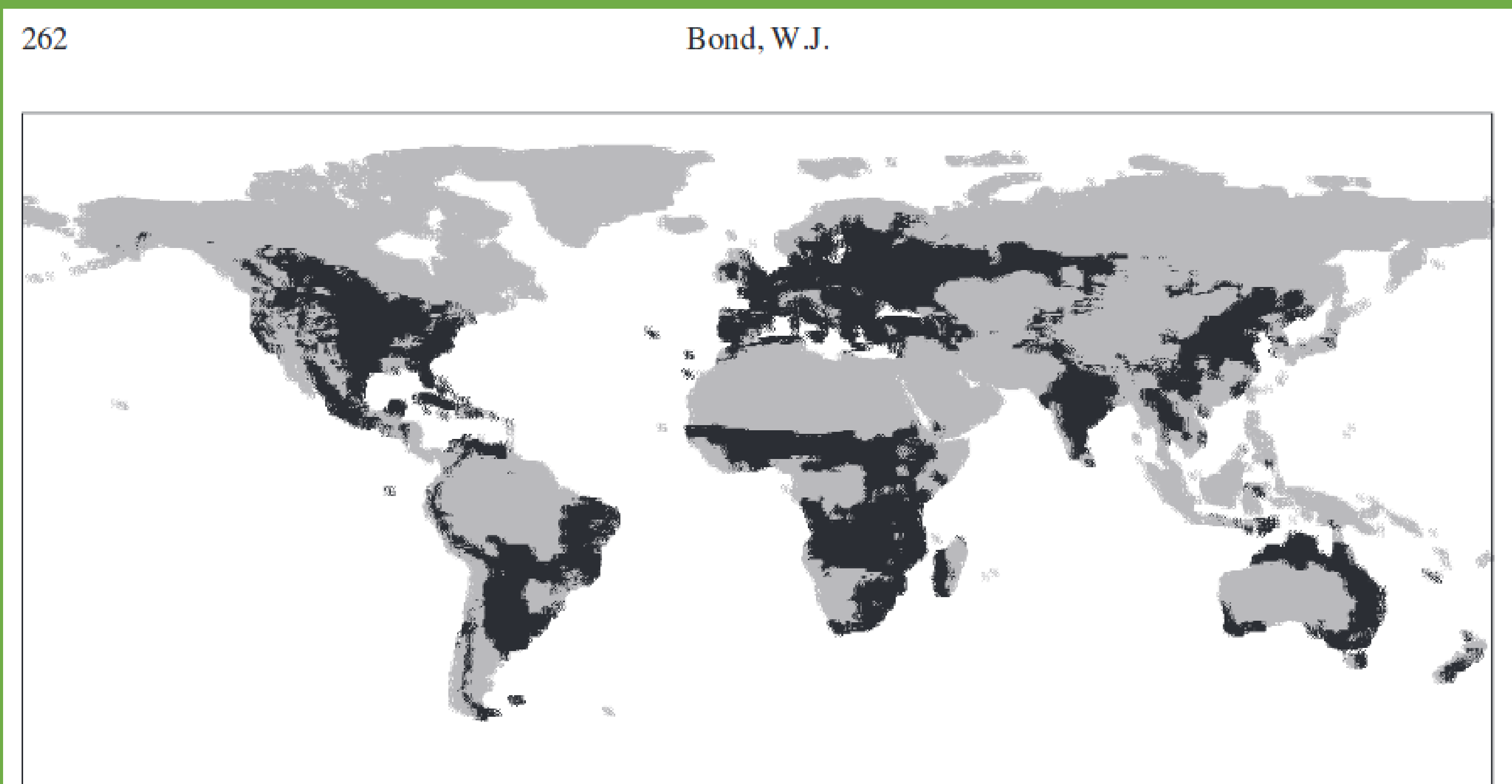


Fig. 1. Areas of the world (dark shading) falling into the 'ecosystems uncertain' climate envelope of Whittaker's (1975) global biome ordination on temperature/precipitation gradients. 'Ecosystem uncertain' are climate zones "in which either grassland, or one of the types dominated by woody plants" occur (Whittaker 1975). Ecosystems uncertain were mapped for all pixels with $MAP > 7.143 MAT + 286$ and $MAP < -1.469 MAT^2 + 81.665 MAT + 475$; MAP = mean annual precipitation; MAT = mean annual temperature (ex Fig. 4.10, Whittaker 1975). Climate data (10' grid aggregated to 0.5° squares): <http://www.cru.uea.ac.uk/cru/data/hrq.htm>

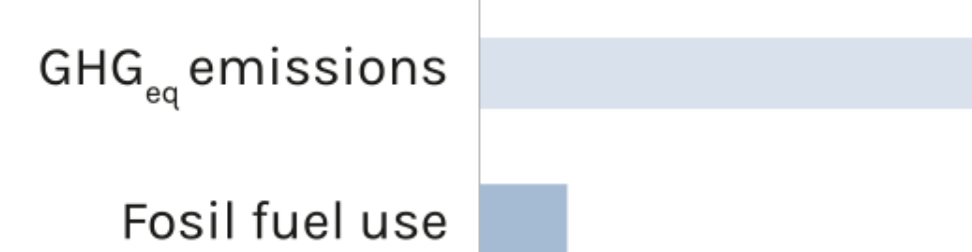
Livestock scenarios should be compared with other plausible scenarios: abandonment/rewilding, industrial agriculture



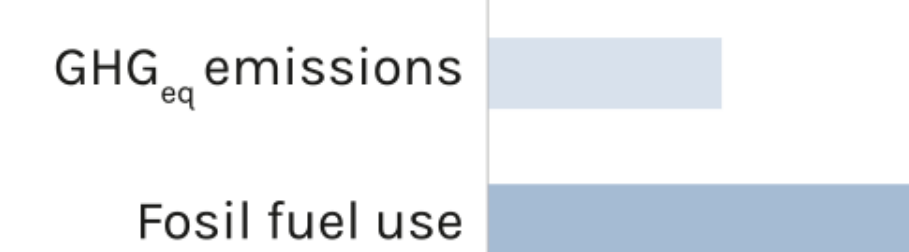
Abandoned pasture



Extensive livestock



Intensive farming



Conclusions

Methane fluxes in pastoralism belong to natural fluxes and are therefore not anthropogenic

Grazing livestock mimics wild herbivory and its impacts should therefore be contextualized with natural herbivory.

References

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