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Glass houses - comment on 'decolonising biogeography'

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## Glass houses? – A comment on ‘decolonising biogeography’

In their recent article in *Frontiers of Biogeography*, Eichhorn et al. (2020) raise some of the inherent and pervasive imbalances in biogeographical research and present several approaches to remedy this. We would like to commend them for highlighting these issues. Making our science more collaborative, increasing access, and uncovering inherent biases in it are indeed challenges we should all address. Nevertheless, some of the biases they seek to expose permeate to their contribution and thus fail to put into practice what they advocate.

First, we would like to point out that despite their focus on sharing data as a means of alleviating the geographical imbalance in knowledge production and access, the data they display on their map (i.e., their Figure 1) are not shared in their contribution. These data could have been easily obtained and made accessible using readily available resources (e.g., Ladle et al. 2015, which they cite).

Second, Eichhorn et al. (2020) display these data on a map using the global Mercator projection. This projection was conceived in the Netherlands at the height of the colonialist era to aid navigation. Notwithstanding its ease of use in navigation, it is nowadays widely accepted as perpetuating the (misplaced) sense of self grandeur of the ‘Global North’ (Harley 1989, Peters and Kaiser 1983). This projection lacks fidelity of area and misrepresents the size of regions close to or far-away from the equator. Frankly, Mercator projection should never be used in modern biogeographic maps (Vujakovic 2002) – and surely not in an outlet such as *Frontiers of Biogeography*. Indeed, the author guidelines of both *Journal of Biogeography* and *Global Ecology and Biogeography* explicitly state that “Mercator’s projection is not acceptable” – and require equal area projections to be used.

Perhaps the bias with more unfortunate implications comes from dividing the world between the ‘Global North’ and ‘the tropics’ by using the Tropic of Cancer and Capricorn for these designations, which we feel is unfortunate (see Feeley & Stroud 2018 on the many definitions of ‘the tropics’ in the academic literature). This division probably includes in both designations all biogeographic realms, as well as countries from the top and bottom percentile of per capita GDP (itself a problematic concept). According to this designation, biogeographers from James Cook University in Townsville, Australia should be supported and decolonized from the oppressive claws of those from the University of Queensland (Brisbane, Australia), down the coast to the South. Latitude has been shown to affect people’s

perception of countries in the European context (Swindle et al. 2020). As people’s perceptions of countries have both many negative and positive implications, either when they are accurate or inaccurate (Espeland & Sauder 2007), such latitudinal divisions should be taken with care. Generally, Eichhorn et al. (2020) make a hodgepodge of divisions of the planet that are frankly hard to follow. They divide it to the ‘Global North’ vs. ‘the tropics’, the ‘Global North’ vs. the ‘Global South’, the north vs. south hemispheres (sometimes pitting these against the previous designations), and ‘developed’ versus ‘developing’ nations.

More importantly, their dichotomous division of the world is overly simplistic and often misleading with respect to geographical, biogeographical, ecological, and socio-political global patterns. The dichotomous division of the planet into ‘temperate’ vs. ‘tropical’ coverage of the entire globe is unfortunately pervasive in the ecological and biogeographic literature in general. From a biogeographic point of view, this division completely disregards the identity of hugely important biomes such as deserts, drylands, Mediterranean habitats, taigas, and tundras – which together cover most terrestrial regions of the planet (for an example of such designations see Olson et al. 2001). From a socio-political standpoint, Eichhorn et al. (2020) refer to ‘the Global North’ vs. ‘the Global South’ (as a replacement of the less politically correct terms ‘developed’ and ‘developing’ world). Here too the division over-simplifies real current geo-political and economic trends and has its roots in an antiquated, judgmental division of the planet (dating back to the ‘age of exploration’ and the ‘civilized’ vs. ‘uncivilized’ world). The world is a complex interesting place – let’s treat it as such.

Legacies of colonialism (European and non-European, our own country sadly included) are indeed present in our societies and in science, sometimes to the point where even the best intentions only serve to perpetuate them. We agree with Eichhorn et al. (2020) that greater efforts are needed to uncover and remedy this imbalance. Collaborative, open, diverse, and unbiased science is a task we should all strive towards.

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