Dear Professor Loisel,

Please find below the comment from your group in black font. Our reply is provided in blue font. We appreciate your group both reading our manuscript and providing a community comment. We also appreciate being notified that the very deep Tibetan point was in error (switched elevation and peat depth), which we have now rectified.

—

We are a group of graduate students who have read your study with interest. For context, we discuss 1-3 scientific papers that relate to peatland dynamics weekly.

The study reads very well and is adequately referenced. We understood the context, objectives, and the flow of information was always relevant to addressing the study's goals.

Thank you for your comment. We are glad to hear our study was chosen by your group for its journal club - and that you brought back your comments here allowing us to improve our manuscript based on them.

One issue that was raised regards the definition of 'peat'. Depending on the threshold used, the peatland extent could be more than 3%. Also, we appreciate that all peat depth data are included, making the 'peat / no-peat cutoff' at the discretion of the user, but it could be good to explicitly state this fact in the document. In other words, maybe add a sentence to the effect that all peat depths have been included.

We have changed this line (line 85 in original MS; italics show the new text):
"Peat study data were accepted into Peat-DBase provided the measurements were taken down to the basal depth indicated by mineral soil or bedrock; beyond this requirement, any coring or sampling method was allowed that was able to accurately determine the basal depth. *We included peat depths (from peat-focused studies) starting from 0 cm (indicating mineral soils) and deeper, as we wish to allow Peat-DBase users to use their own peat depth definitions for their particular use case.*"

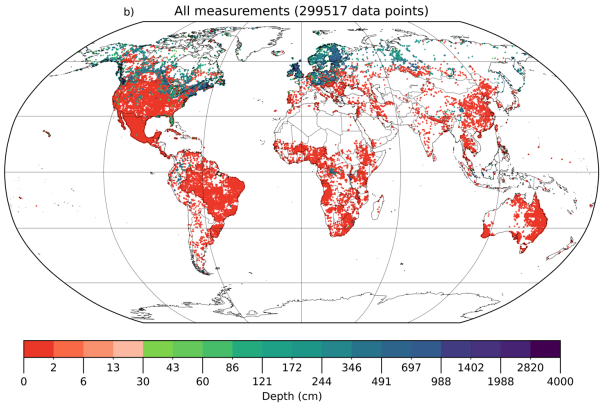
Based on Figure 2, it looks like the vast majority of the shallowest peats (less than 30 cm; in red on panel A) are in the Congo Basin. Are we sure that these individual points referred to 'peat depths' in the original paper (Crezee et al. 2022), or did the original authors include lots of points aimed at showing areas without peat? (we believe the latter is correct). We also noticed a few of those red points in the Colombian lowlands. Lastly, the reds vs. greens may not be colorblind friendly.

Following our approach of taking in all observations from peat-focused studies we do end up with some 0 cm depth observations. In particular, the Crezee et al. (2022) paper has many peat

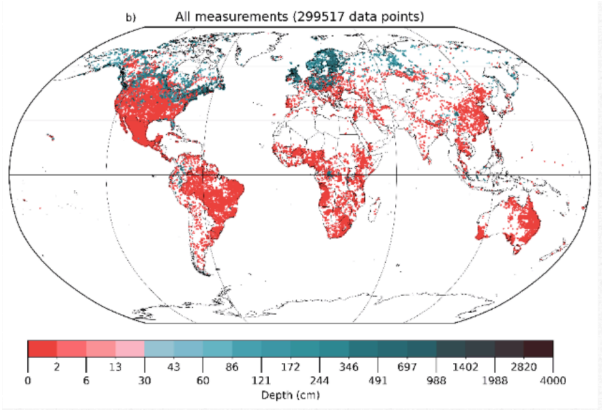
observations that appear to correspond to villages that we assume they drove through during the course of their field work, e.g.

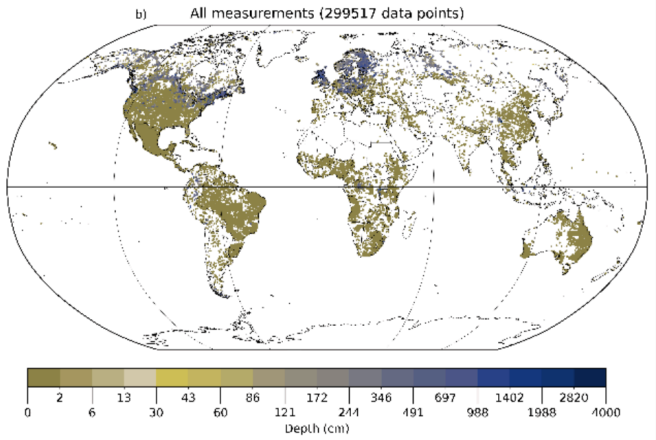
We feel these points are useful to include as they constrain where peat is absent in these peat-rich regions.

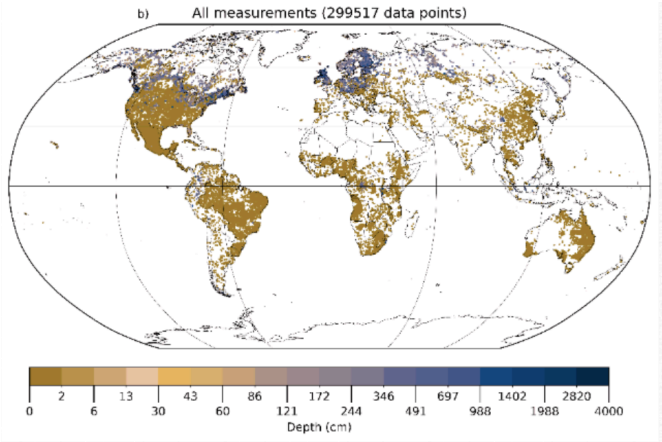
We did run all figures through a colour-blind simulator and the figure seems to work well in the simulated renderings:
Original:



Simulated for different forms of colour blindness:







Data availability: we like the ease of downloading a single CSV file that contains the database and the opportunity to share new data points via the Google form.

We are glad to hear, we also find the CSV simple to work with.

Discussion: we appreciate the focus on peat depth alone, without trying to correlate with other predictive factors. We anticipate that future work will be based on such types of analysis, given the inclusion of the (non-peat) WoSIS data.
Thank you. This approach was partly enforced by the journal specifications but also made sense for the purpose of this paper in our view.