

Author responses (AC) to comments for Maier et al. manuscript 21.10.2025

Dear editors,

Thank you again for giving us the opportunity to address the minor comments on the preprint draft of the manuscript “Parent material geochemistry – and not plant biomass – as the key factor shaping soil organic carbon stocks in European alpine grasslands” for publication in the Journal of Biogeosciences. We appreciate the additional time and effort that you and the reviewers dedicated to providing a second round of feedback on our manuscript and are grateful for the attentive reading that went into identifying typos and minor errors. We have addressed all of these typos and minor comments. All changes are highlighted in a track-change file. Please see below, an additional response to reviewer 2’s comments.

Referee 2:

Overview Ref 2: I thank Maier et al. for their careful consideration of the reviewers’ comments and for the revisions they have made. I have only a few minor comments remaining, and once these are addressed, the manuscript will be ready for publication in Biogeosciences. Thank you again to the authors.

Our response: We appreciate the positive assessment and support from Reviewer #2 on our revised manuscript and thank them for their identification of typos and their addition of select comments. We have implemented all of their comments and suggestions into the second version of our revised manuscript. Furthermore, we again carefully reread the entire manuscript and identified further small errors in the form of typos, individual incorrect Figure/Table references and also changed the model performance metrics contained in Table B1 for the leave-one-out cross validation random forest model. The prior version of the manuscript contained the values from the ‘original’ version of the random forest model we had applied, which did not account for spatial autocorrelation as well.