

Response to Associate Editor

Associate Editor Decision: Publish subject to technical corrections (22 Jan 2021) by [Sara Vicca](#)

Comments to the Author:

Dear authors,

Thank you for your revised manuscript, which I am pleased to accept for publication in Biogeosciences.

Before uploading your final files, please consider the minor remarks below.

Kind regards,

Sara

Minor remarks:

I. 119 wider C/N ratios: do you mean higher C/N ratios?

I. 120 higher SOM content does not necessarily reflect lower nutrient availability. In many cases, the opposite is true (see e.g. Van Sundert et al 2020, Global Change Biology, 26, 392-409). Please rephrase this sentence to make clear that the suggested negative relationship between SOM and nutrient availability applies to this specific study (presumably a temperature-effect?) but cannot be generalized.

Dear Associate Editor,

Thank you for accepting our manuscript for Biogeosciences!

We changed the respective sentence as follows.

“The increase in organic layer depth with elevation in both transects, accompanied by **wider greater** C/N ratios and lower pH, is probably related to higher soil organic matter contents and indicates **in our stuy areas** a decrease in nutrient availability as a result of reduced organic matter turnover **at lower temperatures**.”

Kind regards,

Jürgen