2nd review of bg-2021-110

Grazing enhances carbon cycling, but reduces methane emission in the Siberian Pleistocene Park tundra site

General comments

In this revised version of the manuscript, the authors excellently managed to clarify their study design for comparing carbon emissions and uptake between grazed and ungrazed Arctic tundra sites.

Detail additions in both introduction and methods will help readers to understand the study's intention and limitations. These limitations are picked up again in the discussion, and discussed in sufficient detail.

The additional work put into graphical design improves readability of the graphs and understanding of the "read thread" drastically.

Adding a paragraph on the original hypothesis to the conclusions makes this paper a well-told story with interesting but also very specific findings.

Specific comments

Please consider making the data accessible via a scientific data repository.

Technical comments

Line 90: There's a missing space between 15 and km.

Table 2: There is still some inequality in spacing of the asterisks in the table description.

Line 741: There's a typo in the reference to Myers-Smith et al., where the I in "Macias-Fauria, M." should not be capitalized.

Review criteria:

Does the paper address relevant scientific questions within the scope of BG?
Yes

Does the paper present novel concepts, ideas, tools, or data?
Yes

Are substantial conclusions reached?
Yes

Are the scientific methods and assumptions valid and clearly outlined?
Yes

Are the results sufficient to support the interpretations and conclusions?
Yes

Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)?
Yes

Do the authors give proper credit to related work and clearly indicate their own new/original contribution?
Yes

Does the title clearly reflect the contents of the paper?
Yes

Does the abstract provide a concise and complete summary?
Yes

Is the overall presentation well structured and clear?
Yes

Is the language fluent and precise?
Yes

Are mathematical formulae, symbols, abbreviations, and units correctly defined and used?
Yes

Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated?
No, all good

Are the number and quality of references appropriate?
Yes

Is the amount and quality of supplementary material appropriate?
Yes