

3rd round of reviews

Author responses to editor comments, and edits to the manuscript “Accelerated lowland thermokarst development revealed by UAS photogrammetric surveys in the Stordalen mire, Abisko, Sweden”

(Paper submitted to ‘The Cryosphere’ | egusphere-2025-3788)

We would like to thank the editor for the comments on our manuscript #egusphere-2025-3788-R2. We have paid close attention to the suggested edits and made the requested changes as detailed below, with editor’s comments in regular font, directly followed by our responses in italic (*blue font*).

In addition to the specific comments below, we have carried out a full proofreading for English spelling, grammatical errors and typos, which has greatly improved the quality of the paper. Thank you for pointing out this shortcoming.

Editor decision: Publish subject to minor revisions (review by editor)

Report | Submitted on 23 July 2026

Editor comments

Dear Maxime Thomas and co-authors,

Thank you for your replies to the second round of reviewer comments and your revised manuscript. While I find most of the raised issues satisfactorily addressed, I still have identified a few points that require further revisions. Some of them are examples for the last general comment of referee #2 regarding English proof-reading, which I happened to catch. Please make sure to have your whole manuscript checked again for correct English spelling, grammar, sentence structure and consider using professional language editing services at your own discretion.

Please go ahead and provide your revisions; note that line numbers refer to the Author’s tracked changes file “egusphere-2025-3788-ATC2.pdf”:

L 21: change „evolve“ to „evolves“

We have changed the sentence accordingly.

L 64 ff: The added text is not a complete sentence; I assume that something got lost during editing. Please double-check the completeness of information you wanted to provide here with the previous sentence and this new addition and rephrase the section for clarity and correctness.

Thank you for pointing out this error. The reference was indeed missing at the start of the sentence. We have changed the sentence, which now reads: “Turetsky et al. (2020) provided a high-level estimate suggesting that GHG emissions across 2.5 million km² of thermokarst landforms”.

L 222: Delete “of” in “We calculated of the”

We have changed the sentence accordingly.

L 224: Please double-check the phrase “to distinguish between more homogeneous patches from more heterogeneous patches” for grammar. I think it should be either “distinguish between ... and ...”.

We agree that “distinguish between X and Y” is more natural and standard than “distinguish between X from Y”. We have changed the sentence accordingly.

L 418: Change “an decrease” to “a decrease”

We have changed the sentence accordingly.

L 419: I agree with referee #2 that their question raised regarding “doubled in size between 2014 and 2022” should be clarified not only in your answer to the referee comment, but reflected in the manuscript text here as well. While the footnote earlier in the manuscript is indeed providing some explanation, it will be helpful for the reader to be provided with further explanatory context in this section 3.3.

The question from referee #2 was: “doubled in size between 2014 and 2022” What about the value in 2018? Was that supposed decrease in open water area due to seasonal water level fluctuations?

The new sentence now reads: “We further note that the fraction of the open water class has more than doubled in size between 2014 and 2022. This is consistent with the general trend towards wetter conditions documented at Stordalen (e.g., Varner et al., 2022), but inter- and intra-annual variability in hydrological conditions may also contribute to differences between surveys (e.g., 2018 appears to have been drier), as fluctuations in water-table depth and precipitation are expected in the mire (e.g., Bäckstrand et al., 2008; ICOS Sweden, 2023; Petrescu et al., 2008).”

References

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