

Dear authors,

Thank you for your thorough response to reviews. As you know, one reviewer had a second look at the revised manuscript to provide some clarification for their previous comments. Their comment is below, and I therefore request a brief response and amendments to the manuscript if appropriate before we move to the final decision.

Thank you for your patience with the review process.

Dr Liz Bagshaw

Reviewer#1:

The manuscript is acceptable in its current form, I would like to clarify one of my comments and let the authors consider it.

My comment about volume was not a liquid volume, but rather a volume of basal ice (cm^3). I understand that g of basal ice is like a permafrost soil core and so volume (mL) doesn't make sense, but usually the permafrost soil also comes along with a soil water content and therefore a wet weight:dry weight ratio. I did not see any numbers on sediment content, which is important to know for biomass calculations. If you do want to stay with g of ice, that is fine, but is it g wet weight or g dry weight?

We have added by-weight debris content to Table 2. We have also revised the caption to indicate that all measurements are normalized to sample wet weight.

The names of the different basal ice types are informative, but need to be comparable to the next study.

As described in the methods, the naming of the different basal ice types in our study follows the standardized classification scheme for basal ice defined in Hubbard et al. 2009.