

Dear Dr. Bennett,

Thank you for the revised manuscript. The majority of points have been adequately addressed. Thank you for the detailed review! We really appreciate your care and attention to this paper.

However, three points are still outstanding:

- 'In 2019, the survey captured a finer spatial resolution and thus we expect greater spatial variability and higher error'. The coefficient of variation in Table 2 is lower for 2019 than the other years, so this does not suggest greater spatial variability with finer resolution. Is there any other evidence to indicate undersampling in other years? Once the spatial variability has been sufficiently captured then additional observations will not provide any more information. Could the higher error simply be a function of the higher SWE (e.g. percentage errors vs absolute errors).

Response: we checked all of the values and found that the CV reported in Table 2 has very small errors, thus the 2019 CV is in fact slightly higher than in 2018. However, the CV values for 2018 and 2019 are really quite similar (only one point apart previously, and are actually the same when you consider the entire SWE data set rather than the averaged spatial SWE values), suggesting about the same amount of spatial variability in these two years. In 2017 versus these two high years, the CV is much higher, and Kougurok 2018 also has a much higher CV for SWE (with lower SWE values). So, I don't think it can be simply a function of higher SWE. I suspect that at some point, there is a lot of variability in the snow pack, and as snow fills in the topography, it starts to be reduced, but all of this is likely influenced by things like sampling density, snow depths/SWE amount, and variations in measurement techniques/teams year to year. I have adjusted the text in this part of the ms, and noted that it is beyond the scope of the study to consider this point in more depth. I think we would need to set up a specific test to look at this, which would be interesting and something to think about for next year's survey. Note, in this checking, I adjusted a few of the values in the entire Table 2 slightly.

The response to 'Please could you comment on why vegetation is of high importance in this study but low importance in Meloche et al?' contains only information on why vegetation is important in this study. Please discuss why the two papers with similar methodology have very different vegetation importance.

Response: We have written a new paragraph that describes the Meloche et al. 2022 findings, compares it to our work, and notes why we feel our work is an improvement over their approach. Please see the track changed version of the text.

Please revisit the figure number referencing as these are still not fixed. Figure A8 is not referenced and there are other errors with the numbering.

Response: we fixed these typographic errors.

Many thanks and with best wishes,
Mel