1. The main weaknesses include the lack of snow area and depth measurements, and the absence of a vertical profile, which limits inference about the exact microhabitat of the invertebrates (surface vs within/below the snow) and the relative importance of seeding from above versus potential vertical redistribution within the snowpack. These limitations are particularly relevant in light of recent work documenting temporal and vertical changes in snow microbial communities and diel vertical migration within the upper snow column driven by solar radiation and nutrient gradients; I therefore encourage the authors to discuss their results in the context of these studies and, where appropriate, to cite them when considering habitat and source dynamics. Nonetheless, the major conclusions remain valid, and the results are analyzed and discussed appropriately.

Response: Thank you for vary valuable comment, we will consider this for future studies. However, we would like to clarify why neither vertical nor temporal scopes were included in the study.

Initially we considered lowland snow patches as **short-lived** cryoecosystems that differ substantially from alpine snow environments, like described in recent studies by Ono et al. 2025 and Ono & Takeuchi 2025. Whereas snow cover in the mountains of Japan may lay until summer, snow cover in the Baltic lowlands typically disappears **by the end of March**. **This ephemeral nature** of lowland snow in temperate regions has limited our abilities to describe the ecosystem through the time. Therefore, we decided to provide **a snapshot of biodiversity** there, **focusing on the remnants of snow patches at the very end of their existence**. This was the rationale for sampling during early spring.

In addition, the thickness of lowland snow cover was generally much lower than that of alpine snowpacks, making it difficult or impossible to divide most sampled snow patches into distinct vertical layers. Because of the short period of living and limited depth of the snow patches, we presume that vertical migration processes within the snowpack are either absent or less pronounced than those reported for deeper and longer-lasting alpine snow systems.

In any case, we are grateful for this comment, and we will try to consider this issue in future studies.

2. While region and sampling date are reported, they are not explicitly evaluated as predictors of invertebrate abundance. I believe it would be worth testing whether they are significant predictors. If they are not, I do not think they are essential additions for the current figures, but this could be briefly mentioned in the text.

Response: In the ordination analysis, we included only sites visited in 2024 year. All of these sites were sampled within a short time frame, from February 26 to March 28. We believe that this approach follows the principle of temporal standardization, as each sampled snow patch represented the **last remaining snow at its respective location**. For example, sites in Lithuania (more southern) were sampled in late February, whereas sites in northern Estonia were sampled later, reflecting a bit later disappearance of snow at higher latitudes. A brief clarification has been added to the Materials and Methods section.

Regarding location, we tested for relationships between invertebrate densities and latitude – no relationships were observed.

Specific comments:

1. Line 29: “i.e.” → “including”

Response: Corrected.

2. Line 32: “e.g.” → “i.e.”

Response: Corrected.

3. Lines 30–40: As nematodes are among the most abundant taxa in this study, I suggest adding a sentence about them to this paragraph.

Response: Added.

4. Line 63: “remaining” → do the authors mean “ephemeral” or “transient”?

Response: “Remaining” means last snow in the season. SSPs are the snow areas which remain for some time after the seasonal snow cover melts. And yes, due to their short existence (compared to polar or alpine snow fields), they can be considered "ephemeral".

5. Line 191: Please add the snow-patch age to the dataset. If not available, please connect the sentences around line 191 more clearly.

Response: Unfortunately, it was impossible to estimate the age of the patches. However, according to rough estimates, they are all no more than 2-2.5 months old. The text was accordingly changed.

6. Line 211: Please clarify whether mass is expressed per square meter of snow or per liter.

Response: Per square meter (indicated in text and in the Table 1).

7. Line 214: Is snow area available for each patch?

Response: Yes, the information on the area of snow patches can be found in Supplementary Table S2.

8. Line 244: I would suggest reporting averages here rather than ranges.

Response: Corrected.

9. Line 442: “: be” → “: by”

Response: Corrected.

10. Line 443: “algae and cyanobacteria”

Response: Corrected.

11. Line 444: Remove “obviously”.

Response: Corrected.

12. Line 449: Remove “old” or rephrase; elsewhere the text mainly refers to SSP as short-lived, so “old” is confusing and not precise.

Response: Removed.

13. Additional private note (visible to authors and reviewers only):
I particularly encourage the authors to discuss their findings in relation to recent work on temporal and vertical dynamics of snow communities, including Ono et al. (2025, The Cryosphere: ‘Temporal and vertical changes in snow microbial communities during the melting season below canopy in Northern Japan’) and Ono & Takeuchi (2025, Arctic, Antarctic, and Alpine Research: ‘The diel vertical migration of microbes within snowpacks driven by solar radiation and nutrients’), when considering microhabitat use and invertebrate distribution.

Response: Thank you, both articles were used in the revised discussion.