Response to CC1

If you take a look at the syntheses we have done, soil δ15N also appears to reflect the degree of decomposition of the organic matter. δ15N increases with processing. Warmer sites have soil N that is elevated in 15N, but has lower C:N. Once you control for C:N, there is little pattern in 15N across temperature gradients. similar interpretations could be applied here. You need to take a look at the syntheses and reviews we have done on how to interpret plant and soil 15N. there are important data here, but interpretation is important too.

Answer: Thank you very much for your efforts on our paper submitted to the "Soil" (Manuscript ID soil-2021-40). We have checked the manuscript and revised it according to the comments carefully.

In the Introduction section of the revised paper, we have stated that the larger the $\delta^{15}N$ value, the higher degree of openness of N cycling. In addition, soil $\delta^{15}N$ also appears to reflect the degree of decomposition of the organic matter, showing that $\delta^{15}N$ increases with processing (Craine et al., 2015) (P4L58-60).

In the Discussion section, we have indicated that warmer sites have soil N that is elevated in ^{15}N, but has lower C:N. Once C:N is controlled, there is little pattern in ^{15}N across temperature gradients. In other words, the relationship between soil $\delta^{15}N$ and climate is indirect, and mediated through climate effects on soil properties (e.g., the concentrations of organic carbon and clay) (Craine et al., 2015) (P10L207-211).

Finally, the relationships between the *d* values and environmental variables for plant $\delta^{15}N$ were weaker than those for soil $\delta^{15}N$ (Fig. 3). The possible reason is that several other factors (e.g., plant N concentrations and species richness) might co-regulate plant $\delta^{15}N$ (Wu et al., 2019). This is consistent with the study of Craine et al. (2009), who found different inflection points in soil and plant $\delta^{15}N$ relationships with MAT. In addition, plants are generally depleted in ^{15}N relative to soils (P11L222-224).