

Response to Topic Editor

Dear Professor Moritz Laub,

We appreciate your positive assessment of our revised manuscript and your insightful comments regarding factual correctness. In accordance with your suggestions, we have conducted a comprehensive review and revision of the Discussion section, ensuring that all statements are strictly grounded in measured data or explicitly supported by the literature, thereby avoiding inferences that extend beyond the evidence for unmeasured processes. The main revisions include:

(1) In the paragraph concerning decomposition/mineralization rates, we have revised the original assertion of “high rates of soil organic matter decomposition and nitrogen mineralization” to a cautious inference based on soil carbon and nitrogen contents and the low SOC:TN ratio, corroborated by relevant literature.

(2) We systematically reviewed and revised other similar explanatory statements throughout the Discussion to clearly distinguish observed facts from reasonable inferences based on literature and logical reasoning.

We believe these revisions have substantially improved the Discussion, balancing scientific insight with factual accuracy and argumentative rigor. We sincerely look forward to your and the referees’ further evaluation and remain open to additional feedback to refine the manuscript further.

Thank you again for your invaluable suggestions.

Sincerely,

Yi Dang