

Reply to Anonymous Referee #1 for “Estimation of the Degree of Decomposition of Peat and Past Net Primary Production from Mid-Infrared Spectra”

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1 Comments

None.

2 Additional changes

1. At l. 151, we added a citation to the data descriptor for the Peatland Mid-Infrared Database (Teickner et al., 2026), which was published during the peer review of our manuscript.
2. Throughout the text, we replaced the acronym “pmird” by the proper name of the database (Peatland Mid-Infrared Database).
3. Throughout the text, we abbreviated “degree of decomposition” by γ , where appropriate.

4. At l. 280, we added the following definition for initial mass accumulation rate: “If there is a large fraction of roots in a sample, a large fraction of the initial mass may have been added to the layer after its initial formation by aboveground litter. In presence of roots, we therefore call our estimate the initial mass accumulation rate.”
5. At l. 290, we now reference Fig. 1.
6. We checked grammar and reading flow and adjusted the text where necessary.

References

Teickner, H., Agethen, S., Berger, S., Boelsen, R. I., Borken, W., Bragazza, L., Broder, T., De La Cruz, F. B., Diaconu, A.-C., Dise, N. B., Drollinger, S., Estop-Aragonés, C., Gałka, M., Martí, M., Glatzel, S., Groß, J., Harris, L., Heffernan, L., Hodgkins, S. B., Hömberg-Grandjean, A., Hoppe, H., Kleinebecker, T., Knierzinger, W., Liu, H., Mathijssen, P., Mollmann, C., Schuster, W., Närtker, L., Olefeldt, D., Pancotto, V., Pelletier, N., Reuter, H., Robroek, B., Svensson, B. H., Talbot, J., Thompson, L., Worrall, F., Yu, Z.-G., and Knorr, K.-H.: Peatland Mid-Infrared Database, *Scientific Data*, 13, 538, <https://doi.org/10.1038/s41597-026-06986-x>, 2026.

Reply to Anonymous Referee #2 for “Estimation of the Degree of Decomposition of Peat and Past Net Primary Production from Mid-Infrared Spectra”

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We thank the reviewer for the helpful comments and hope to have addressed them appropriately. Comments made by the reviewer start with a bold **Q** while our reply starts with a bold **A**. In section “Additional changes” we list additional changes we would like to incorporate in an updated version of the manuscript.

1 Reply to comments

1. **Q:** Some minor editing of the text should be done on the ‘new sections’. Here some suggestions:

1. Line 547: “However, the extent of this problem remains unclear at present.”
2. Line 530: “measured here”
3. Line 597: “testing”

A: We thank the reviewer for these suggestions. We changed the text as suggested.

2 Additional changes

1. At l. 151, we added a citation to the data descriptor for the Peatland Mid-Infrared Database (Teickner et al., 2026), which was published during the peer review of our manuscript.
2. Throughout the text, we replaced the acronym “pmird” by the proper name of the database (Peatland Mid-Infrared Database).
3. Throughout the text, we abbreviated “degree of decomposition” by γ , where appropriate.
4. At l. 280, we added the following definition for initial mass accumulation rate: “If there is a large fraction of roots in a sample, a large fraction of the initial mass may have been added to the layer after its initial formation by aboveground litter. In presence of roots, we therefore call our estimate the initial mass accumulation rate.”
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References

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