

Answers to the editor's comments

Comments to the author:

Dear authors,

Two referees were positive about your manuscript and indicated it is publishable after revisions. I would therefore like to invite you to revise your original manuscript according to the suggestions made by the referees and your proposed corrections.

- Thank you for your assessment and for taking the extra time to critically read our manuscript. We appreciate your comments and hope that the revised version will be acceptable for publication in SOIL.

In addition to both review reports, I have also read your ms with interest and also have a couple of questions/suggestions:

- detail, but it could be mentioned at the end of the introduction (before the hypotheses) that sampling was done over one year. Perhaps it could even be mentioned in the abstract.

- This clarification has now been added to line 99

- Abstract: I found the abstract very clear and a good read, but missed the actual meaning of the results; what does it mean to have a lower S in summer? (apart from the apparent necessity to include colder seasons when determining decomposition dynamics)

- This is a good point and lines 36-38 now read “Stabilisation factor (S), but not decomposition rate (k), correlated with the season and was significantly lower in the summer, indicating a decomposition of a larger fraction of the organic material during the warm months.”

- Introduction: like reviewer #1 I think the introduction is somewhat too concise. I miss some background on how different soil types or seasonality might influence the decomposition of recalcitrant or labile plant litter. Also, there seems to be no hypothesis on how soil type or seasonality influence k or S, or microbial diversity? The aims described in the abstract refer to different soil types and seasons.

- Thank you for this comment. We have added a section to the introduction about the influence of seasonality on litter decomposition in lines 107-110. However, since the utilised soil types were in fact highly similar to each other and also the management practices on these soils were identical, we do not feel it right to emphasise this specific topic more. We have included a clarifying sentence regarding expectations of effects of soil type and seasonality to the hypothesis section and hope that the research expectations and hypothesis are now more clear in the revised version.

- Conclusion: this is related to my previous point: in L320 you refer to your hypothesis where you expect seasonality to affect the litter composition rate, but I did not read this specifically in L93-97. It would also be good to read a conclusion about whether the different soil types affected the litter composition rate. I would expect some mention of it after soil types have been mentioned in the aims and is part of the experimental set-up.

- Thank you for this comment. We have now amended the section describing our hypotheses and general scientific expectations (see also answer to previous point). A conclusion on the effect of soil type is given in lines 325-327. Since we did not observe a major effect, and more importantly since the soil types were in fact highly similar to each other, we prefer to not include a statement on these findings in the conclusions section.

I am looking forward to reading your revised manuscript. Since the reviewers have not responded to your suggested revisions, I will invite both reviewers to look at the revised manuscript as to ask them if they are happy with the changes made.

Kind regards,
Ingrid