

Review of bg-2018-498

August 30, 2019

Dear Dr. Keenan and Dr. DeBruyn,

Thanks for providing responses to reviewers of ms bg-2018-498. I am confident that those responses will be included in the new version. In addition to that, I would like you to considering the following issues:

1. **Abstract** needs major revisions (Reviewer 3's comment). Lines 1-9 are a long introduction and it does not say why this issue is relevant. Results presented here are too general to evaluate extent of this influence (for instance how big of a change in  $\delta^{15}\text{N}$  is observed, etc.). Lines 19-21 are not very instructive: a) "...potential to result in long-term changes to soil biogeochemistry...", it is not potential, It is up to a year and of 60 cm from hot spot (already said it in lines 17-18), b) "... and to contribute to bulk soil stable isotopic composition." (already said it in lines 16-17). Instead of repeating facts, I would add significance of findings of your work for the discipline.
2. Lines 40-41. Replace microfauna in "soil microfauna (i.e., bacteria, fungi, nematodes)" since fauna refers to animals and bacteria and fungi are not.
3. Figure 3. Label of dark circle should be sample instead of "Hotspots"
4. Paragraph of lines 236-239 repeats information from previous lines.
5. Line 254. Is it really 65.9%?, not 66%?
6. Line 285, "to the soil profile at depth ". Do you mean soil depth profile?
7. Lines 285-287. "Decomposition hotspots, however, disrupt the expected pattern (Fig. 5), causing surface enrichment, and likely leave a lasting impact on soil stable isotopic composition." Explain what you mean with "likely leave a lasting impact on soil stable isotopic composition" since it is clear from Fig. 5 that below 10-cm depth there is no difference with respect to the control (except for one point at 30 cm depth with nitrogen stable isotopes).
8. Conclusions. Please limit to conclusions of your work; Lines 323-324 and Lines 328-330 are not. Lines 331-336 are too speculative and not resulting from your data therefore do not belong to this section.

I am looking forward to receive a new version of your article

Sincerely yours

Silvio Pantoja  
Associate Editor