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Biogeosciences Discussions
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Interactive comment on "Annual litterfall dynamics and nutrient deposition depending on elevation and land use at Mt. Kilimanjaro" *by* J. Becker et al.

J. Becker et al.

jbecker5@gwdg.de

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Dear Reviewer #1, We thank you for your constructive comments. We carefully considered your remarks and tried to adjust our manuscript accordingly.

*p. 10032, ll. 7-9: please check and correct the sentence structure/brackets

The sentence has been corrected as follows. "Tree litter in three natural (lower montane, Ocotea and Podocarpus forests), two sustainably used (homegardens) and one intensively managed (shaded coffee plantation) ecosystems was collected on a biweekly basis from May 2012 to July 2013."

*p. 10032, ll. 17,18: Unnecessary repetition, please delete the sentence

The respective sentence was removed.

*p. 10035., l. 27: Zech et al. (2011) investigated the northern slopes of Mt. Kilimanjaro. Better refer to Zech (2006, Palaeogeography, Palaeoclimatology, Palaeoecology 242, 303-312), who studied the southern slopes.

Thank you very much for this suggestion, we changed the reference accordingly

*p. 10038, ll. 2ff: Not yet clear to me: did you check for seasonality visually or statistically?

A visual approach was used as the basis for comparison and supported with some statistical results. We added a new figure to clarify and visualize the results (see Figure attached). We also changed the method of comparison to a more straight forward calculation based on linear regression analysis.

*p. 10038, l. 6: delete “litter”

Done.

*p. 10039, ll. 1,2: please check and correct, it should be the other way round.

We corrected the paragraph as follows: “Due to the similar C and the increased N content, the C:N ratio was significantly lower in managed ecosystems. It ranged from 16.9 ($\pm$ 0.6) to 20.4 ($\pm$ 0.6) in agroforestry systems and from 32.1 ($\pm$ 0.4) to 44.9 ($\pm$ 0.5) in natural forests.”

*p. 10042, ll. 20-23. Concerning enhanced N-cycling on the southern slopes of Mt. Kilimanjaro, please compare and include Zech et al. (2011, Isotopes in Environmental Health Studies 47, 286-296) who found respective evidence based on delta15N.

We included and discussed the suggested reference.

*Table 2: Concerning annual deposition of N and P via litterfall, compare and include Schrumpf et al. (2006, Journal of Tropical Ecology 22, 77-89) in your respective result

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or discussion chapter.

The suggested reference was included in the discussion chapter 4.1.

Interactive comment on Biogeosciences Discuss., 12, 10031, 2015.

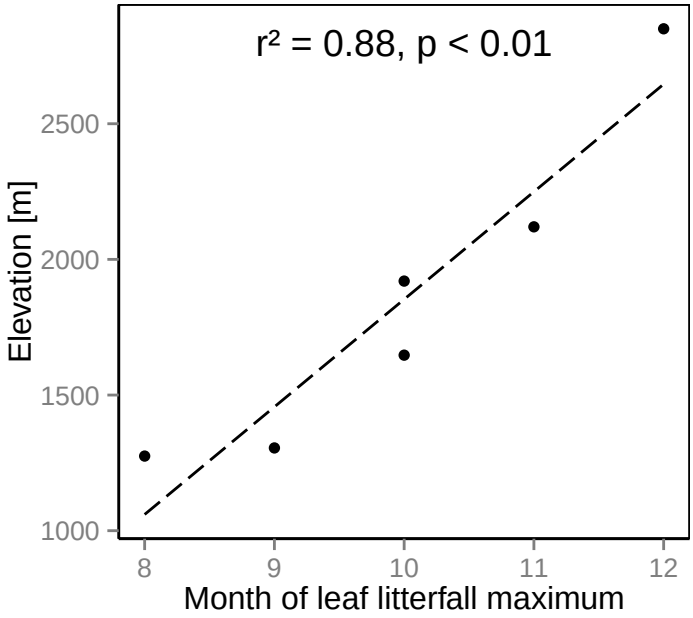

Fig. 1.

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