

Interactive comment on “The moisture response of soil heterotrophic respiration: interaction with soil properties” by F. E. Moyano et al.

F. E. Moyano et al.

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Received and published: 5 February 2012

As noted by referee 1, the discussion section was short. Partially explaining the concise discussion is the fact that remarkably little can be found in the literature that can lead to a relevant comparison. However, we now expanded the discussion and included the DAMM model from Davidson et al. 2012, which was not published at the time of writing.

Response to specific comments: The article has been revised following all the comments made by referee #1. Some specific responses are given below. 2. P. 11581, l. 21: does this mean all data sets were normalized against each other (common 0-1 scale), or individual scales? Clarify Clarified in text

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4. P. 11582, l. 19: somewhat confusing to see “0.01” with no units attached; once I read further I understood, but clarify here if possible Clarified in text

5. P. 11583, l. 5: why was 50mgC/g chosen? Clarified in text

6. P. 11583 l. 10-13: somewhat unclear. Yes, proportional response will be high at very low soil moisture, but this is part of the ‘real’ response, so why is an outlier test being applied? And then why do you say on next page (lines 11-12) that “data at lower moisture extremes was generally missing”? Isn’t it missing because you removed it? Modeling effects at low moisture is possibly the main limitation of our analysis, but we did our best to clarify this and we further discuss the issue in the discussion section. Note that we say that PRSR values are very high at low ‘respiration’- usually at low moisture – which, however, does not contradict that there was very little data at ‘very low moisture’, as evident in Figure 1.

13. Figure 1: consider re-configuring panels to match that in Figure 2 Figure 1 was changed as suggested.

14. Figure 2: please try to enhance contrast between significant and nonsignificant points; e.g., use $\alpha < 1$ for nonsignificant Here we would disagree on changing this figure. Although many points are not significant at $p < 0.05$, they still may reveal a trend that is worth noting. We think the difference between full and empty shapes is clear in the graph and decreasing visibility of the latter will blur the distinction between variables. We hope the high quality figure in the final publication will satisfy most readers.

16. Supplementary info: I wanted to run your R code, but it’s difficult to do so with it given in a PDF. Please put the code into a separate text file We now provide a text file

Interactive comment on Biogeosciences Discuss., 8, 11577, 2011.

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