Biogeosciences Discuss., 12, C4069–C4070, 2015
www.biogeosciences-discuss.net/12/C4069/2015/
© Author(s) 2015. This work is distributed under
the Creative Commons Attribute 3.0 License.

Biogeosciences Discussions
Open Access

Interactive comment on "Soil resources and climate jointly drive variations in microbial biomass carbon and nitrogen in China's forest ecosystems" *by* Z. Zhou and C. Wang

Anonymous Referee #2

Received and published: 6 August 2015

The study of Zhou and Wang reported that the variations of soil microbial biomass carbon and nitrogen are greatly driven by soil resources and climate in China's forest ecosystems. Before its acceptance for publication in BG is given, I may have the following comments on their manuscript.

P192 L9-14: It is easy to understand their major results if the authors could present the detailed data of these indices at least for nature and planted forests. In addition, I don't think the coefficients of variation here as well in other places are necessary. L15-17: How could you make this suggestion according to your results, because in Fig. 7 the values of R2 are less than 0.2? L18: What is the difference of the responses of Cmic/Csoil and Nmic/Nsoil to soil resources and climate? L21-22: I think it's hard to

Full Screen / Esc
Printer-friendly Version
Interactive Discussion
Discussion Paper

understand why the authors make such conclusion, please explain it.

P193 L23-24: Because this kind of work has already done by others, so they probably need to revise this sentence.

P195 L7: Please explain why the authors collected the studies only starting from Jan. 2000. How about the earlier studies? L9-10: Why they didn't use 'China' or 'Chinese' as the key words?

P201 L3-6: What is the significance of such small differences? I don't think it is necessary to conduct such comparison in the first paragraph. L26-30: In Fig. 4, it is hard to believe that the differences of both slopes and intercepts between high- and low-quality soils are significant. Did they perform the ANCOVA analysis to confirm it?

In the conclusions, they should not repeat what they have presented in results and discussion. Rather, they need to summarize the significance of their results, and how they findings could contribute to the detailed aspects of biogeochemical cycle of forest ecosystems.

In both Fig. 6 and Fig. 7, I think the relationships between the indices of C-N and MAT/MAP are not essential. To some extent, given the very small values of R2 in the model results, they should use the results of group analysis in Fig. 2 and Fig. 5 to discuss the effects of climate on the variations of Cmic and Nmic in China's forest ecosystems.

Interactive comment on Biogeosciences Discuss., 12, 11191, 2015.