

Interactive comment on “Impact of cloudiness on net ecosystem exchange of carbon dioxide in different types of forest ecosystems in China” by M. Zhang et al.

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Response to review comments of Referee 1 on manuscript

‘Impact of cloudiness on net ecosystem exchange of carbon dioxide of different types of forest ecosystems in China’ By Zhang et al.

We greatly appreciate your comments and suggestion on the manuscript. These comments are very helpful for improving our work.

Comment: Dear authors, Do you know the values for the clumping index at these sites? If yes, please provide it in the table and use this to discuss your results? How

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the clumping index might affect the canopy radiation regimes and therefore the photosynthesis and NEE? This is very important because the canopy architecture-mediated radiation partitioning within the canopy might explain the variability in photosynthesis and hence, NEE.

Answer: Thanks for the referee’s valuable advice. Clumping index can help us to analyze the effect of canopy architecture on radiation transfer and therefore the photosynthesis of different parts of canopy and NEE. It is important to explain and understand the variability and differences in photosynthesis in the two forest ecosystems at CBS and DHS. However, it is a pity that the clumping index was currently unavailable at CBS and DHS sites. We accept your suggestion and will try to measure the clumping index of these sites in our future studies to promote the research about the effects of canopy architecture on radiation transfer and photosynthesis of canopy.

Please also note the supplement to this comment:

<http://www.biogeosciences-discuss.net/6/C3935/2010/bgd-6-C3935-2010-supplement.pdf>

Interactive comment on Biogeosciences Discuss., 6, 8215, 2009.

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