**Biogeosciences
Discussions**

Interactive comment on "Effects of precipitation on soil respiration and its temperature/moisture sensitivity in three subtropical forests in Southern China" *by* H. Jiang et al.

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In this manuscript the authors present the impact changes in precipitation regime changes have on soil respiration in three contrasting subtropical forest ecosystems. This through-fall manipulation experiment provides a In this short comment, I want to present one major concern I have. This corresponds to the plot size used; in my opinion 3x3m plots are far too small to generalize ecosystem responses – especially the autotrophic component. Roots extend far beyond the tree and are not only localized below your plots. I recognize that this is not the first study to present results using such small plots, but in my opinion this should not validate their further use.

Other comments/ recommended changes:

Introduction:

P15670. L.10: An additional reference here is van Straaten et al 2011. In this paper we present the results of a drought manipulation experiment in a tropical forest ecosystem in Indonesia. It is available at: http://www.esajournals.org/doi/pdf/10.1890/ES11-00079.1

Materials and Methods:

Site description:

Would it be possible to add a table with the basic site characteristics of the three forests? This should include both climatic conditions, soil characteristics (pH, texture, ECEC) and species compositions

Experimental design:

P15673. L.4-5: clarify – not clear: "...distance is only 5 cm." P15673. L.5: Remove "the" from: "Around each EP plot, the thick PVC..."

Soil respiration measurements:

Please add some more details on (1) Chamber volume, (2) length of measurement (minutes), (3) calibration of the LICOR, and (4) location of chambers in respect to the edge of the plot (was there a buffer zone))

Statistical analysis: Instead of a repeated measure ANOVA, a linear mixed effects model has a stronger statistical power.

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