

Interactive comment on “Spatial and seasonal variations of leaf area index (LAI) in subtropical secondary forests related to floristic composition and stand characters” by W. Zhu et al.

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The manuscript entitled “Spatial and seasonal variations of leaf area index (LAI) in subtropical secondary forests related to floristic composition and stand characters” by Zhu et al. is an interesting study on the spatial heterogeneity of LAI and its controlling factors in subtropical forests in China. The paper covers an important issue. The investigation is in-depth and thorough. The results are interesting and fill the gap of LAI measurement in subtropical forests. The paper is well-written and duly illustrated. Publication is therefore recommended with minor revisions suggested as follows:

1. Line 33-34: insert a word “and” after the geostatistics method. 2. Line 46: remove the keywords “Deciduous species”. In your paper, more than one tree species were

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investigated and the constituents of forests or tree species richness was one of the controlling factors of LAI values. In other words, “deciduous species” is not a proper substitute for the proportion of deciduous species. 3. Line 51, 55-56 and throughout main text, the reference should be arranged by the published year. 4. Line 59: insert a word “as” between “used” and “parameter”. 5. Line 109: change “stand character” to “stand characters”. 6. Line 133-134: the mean temperature of the study site should be a fixed value, please correct it. 7. Line 148: check and correct the plot size of *P. massoniana* - *L. glaber* mixed forests. 8. Line 170: please add the manufacturer and country to the LAI measuring instrument (SY-S01A). 9. Line 199-200: coefficient of variation (CV) does not need full name here. 10. Line 234-238: the author need to report which smooth method used for GAM in this study. 11. Line 250: it is better to illustrate the version of R software used in this study. 12. Line 255: consider changing “month” in Table 1 into “measurement seasons”. Do the same modifications in other tables and Fig. 1. 13. Line 265: How did you calculate the mean LAI values? I’m a little confused that why you think it’s necessary to report the minimum, maximum and mean values of LAI at the same time. what’s the differences or the particular meaning between them? 14. Line 350: “. . . but they are not suitable for LAI correction in subtropical forests”, why? Is this a conclusion drew by yourself or from other’s research? 15. Line 360: change “is” to “was”. 16. Line 695-700: the “RSS” in the first line in Table 3 need to be clarified. 17. Line 745-750: In Fig.1, the y-axis should change into “mean LAI value”, x-axis should change into “Month”. 18. Fig 3 and 4: These two figures are new and unique, and the results might be interesting. It’s a pity that you didn’t thoroughly discuss these figures except simply described in Results Line 326-330. I suggest to add some discussion about these two figures in you manuscript.

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