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Early summer hydroclimatic signals were well captured by tree-ring earlywood width in the eastern Qinling Mountains (central China)
Yesi Zhao, Jiangfeng Shi, Shiyuan Shi, Xiaoqi Ma, Weijie Zhang, Bowen Wang, Xuguang Sun, Huayu Lu, and Achim Bräuning

Climate of the Past, manuscript "Early summer hydroclimatic signals were well captured by tree-ring earlywood width in the eastern Qinling Mountains (central China)"

Authors, Yesi Zhao et al.

I want to thank the editors the possibility to review again the article from Dr Yesi Zhao and colleagues and provide below comments and suggestions to improve the work presented.

The actual version of the manuscript is much improved and therefore I can recommend it for publication after correcting some minor problems indicated below.

I think that the signal obtained in EWW is rather alike to a signal of LWW. The measuring of EWW and LWW in Tsap involves some transformation of the data into individual time series. Can it be possible that the authors mixed up the conversion of the collected data?

In addition, positive correlation with PDSI indicates that dry conditions are favourable for tree growth. PDSI positive index indicates dry conditions while negative indicates wet conditions. I understand that the index uses both temperature and precipitation data and can be the signal of temperature that dominates the correlation with positive PDSI as it can be seen in figures 3 and 4. Either case, it is important the coverability between predictor and predictand, thus using tree-ring time series as predictor of PDSI, but if the signal is dominated by temperature rather than moisture, this can be the reason of the instability of the relationship of the time series indicated in the figure 8.

Just a few comments:

Line 2 page 2, reconstructions cannot fall. Please reword.

Line 7 page 2, I think in this case precipitation "are". Please check if I am correct.

Line 11 page 2, please change unable for unsuitable.

Line 14 page 2, caused restrictions of water availability through the growing season

Line 18 page 2, are the abbreviations BYS and LCM needed? Since it is only one word for each name, I think is more reader friendly the original names, and using the locality names adds charm to the research presented.

Line 20 page 2, please consider to mention SPEI index since it was added into the analysis and first mentioned in line 33.

Line 22 page 2, please consider to give a very short background of the EASMI, what does it mean in terms of hydroclimate or temperature in the study area.

Materials and methods,

Line 3 page 3. Please consider changing "study were provided by Shi et al. (2012)." By previously presented in Shi et al., 2012

Line 13 page 3: and did not complete *around* mid-Septermber. Please reword.

Line 13 page 3 "that the cambial cells of… started and ceased in… Please be so kind to indicate what started, cell division, cell growth, activity, etc.

Line 20 page 3, Due to the characteristics of the ring anatomy, Earlywood and latewood…

Line 10 page 4, please use "by means of" instead of "via" otherwise "through consecutive iterations"

Line 12, see Osborn *and colleagues*, (1997).

Line 13, EPS computed on multiple samples per tree will be inflated creating a wrong result (inflated value) please indicate if the index was calculated on single trees or multiple samples per tree.

Line 27 page 4. Please consider that the application of the principal component analysis is to reduce the amounts of variables of an analysis, rather than assess similarity between variables. Cluster analysis can be used to assess degrees of similarity between datasets.

Line 2 page 5: SPEI and PDSI, please see the comment above on presenting both indices in the introduction.

Line 5 page 5, please reword sentence "…and calculate the duration factors…" I do not understand what the authors mean.

Line 13 page 5, please be so kind to reword: three times the word "reconstruction" in one sentence makes it difficult to follow.

Line 26 page 5, please remove "this" before EASMI and "is" after it.

Line 29 page 5. Please change "restored" for "adjusted"

Line 10 page 7. Please change "manifest" for "assess"

Line 13 page 7, please provide proper citation and names for software Matlab RM and Surfer 10.

Line 24 page 7. The positive correlation with PDSI indicates dry conditions as favourable for tree growth. Do I get that right? This means that conditions in the study area are rather too wet, and a moderate drought will be good the tree growth. Is this reasonable for an area of thin soils and well drained?

Line 15 page 8, it says "from September of two years earlier to May of last May". Please reword.

Line 5-6 page 9, please reword "Increased water deficiency due to the rising temperature and inadequate rainfall in the 5 early growing season could induce soil water deficiency thus suppressing cell expansion and cell growth in the cambium"

Line 22, page 9. Restored or adjusted?

Line 23 page 9, please add "the" before reconstruction.

Line 6 page 10. Please change "The possible reasons might be that (1) the seasons that the three reconstructions aimed at are different from ours…" for "The possible reasons might be that (1) the reconstructions aim to different target season"
Line 33 page 10: How stable in time is the spatial pattern of the EASM?
Line 25 page 11, please reword and eliminate "etc,"

Figures:
Figure 1, Southern Asia summer monsoon is not mentioned in the text
Figure 2 figure text: please add "s" to denote.

Figure 6 add "d" to shade. areas

Figure 9, figure text, citation Macias-Faura et al.","2012) please check for the right format.

Figure 10, text in the figure: Huaie River and Yangtze River in the lower left plate is difficult to read.

References Please see the order of the references, and how it should be presented, chronologically or alphabetically see several papers with same first author at different years. Is it authors surname and first name and later co-authors? please check.

Reference Din and Dai 1994 is not in the text.

Good job!