

Interactive comment on “Tree-ring reconstruction of seasonal mean minimum temperature at Mt. Yaoshan, China, since 1873 and its relevance to 20th-century warming” by Y. Liu et al.

Q.-B. Zhang (Referee)

qbzhang@ibcas.ac.cn

Received and published: 26 May 2014

The authors presented a new proxy record of winter-spring mean minimum temperature for the central plains of China where long tree-ring records are rarely available. This manuscript is worth publication from this perspective. However, the following points need to be further explained or revised.

1. P861, lines 14-16: Given that two tree-ring studies were already conducted in this region, plus the additional two studies pointed by Paul Krusic, please further explain why this study is important. For example, does this study add an important site to increase the spatial coverage of the tree-ring data in the central plains of China? If so,

C598

how important is this site and what additional information is obtained from this study?

2. P863, lines 11-14: This may mislead readers that the final RCS chronology is produced by calculating (the averages of) the departures of the raw measurement from the regional curve, rather than dividing the departures by the regional curve. Please rewrite the sentences.

3. P866, line 17 ($p<0.001$, $N=54$): Please make sure that the $N=54$ is effective sample size after considering the series autocorrelation (as you did in line 6 of page 868).

4. P866, lines 19-21: How about remove this PDSI paragraph and the corresponding words in earlier paragraph? This is because moisture is not the focus of this manuscript and PDSI was not further analyzed. Just a suggestion.

5. P867, line 2 (the transfer function): Please take into account of the temperature values when deciding the parameters' effective number after the decimal point.

6. P869, lines 20 (Table 3, actually is Table 4), 24 (1878-1894) and Fig. 8: The number of sample replication in the earliest part is small. I suggest that this cold period could be pointed out, but better be cautious when interpreting it.

7. P871, lines 9-16, and Fig. 13: I am not convinced of the ENSO-Yaoshan Temperature relationship. I suggest that either remove this point or add explanations for such relationship (such as by citing previous reports about the physical relationship).

Interactive comment on Clim. Past Discuss., 10, 859, 2014.