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Climate of the Past Discussions

Interactive comment on "Temperature changes derived from phenological and natural evidences in South Central China from 1850 to 2008" *by* J. Zheng et al.

Anonymous Referee #3

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This paper provides us with a new reconstruction of annual temperature anomalies in South Central China from 1850 to 2008 by synthesizing three types of proxies. The new reconstruction is believed to have higher quality with lower uncertainty since multi proxies are used. I find this paper very interesting and the new reconstruction should be very important for our further research, especially on the understanding of decadal temperature variations. This paper is well structured and suitable in length. Therefore, I would like to recommend accepting this paper in Climate of Past after my following minor points are addressed.

1) On page 4079, the authors mentioned "...Although these series have become important data to illustrate regional temperature changes in China in the last century

(Tang et al. 2009), several flaws remain in the data..." What are the flaws? The authors should at least explain the flaws by one or two sentences.

2) Since this work applied multi-types of proxies, and the authors also believe that the new reconstructed temperature anomalies have lower uncertainties, it would be helpful if the authors make a detailed comparison between the new reconstructed time series and the time series reconstructed by (Wang et al., 1998).

3) On page 4086, "our annual temperature series has a higher explaining variance (more than 56%) on the temperature observation" How is the explaining variance 56% calculated? It will be helpful if the authors show a figure here, or explain by some sentences on the explaining variance.

4) On page 4086 and 4087, the authors claim that the maximum error is only 0.35oC. How did the error bar calculated?

Interactive comment on Clim. Past Discuss., 11, 4077, 2015.