

Interactive comment on “Winter temperature variations over middle and lower reaches of the Yangtze River during the past three centuries” by Z.-X. Hao et al.

Z.-X. Hao et al.

haozx@igsnrr.ac.cn

Received and published: 1 April 2012

Anonymous Referee #1 1. Page 104 line25 The south border of winter monsoon is located in South China, rather than in MLRYR as usually indicated in the text book of Climatology. The south China is in the south of 25°N, but MLRYR is in about 30° MLRYR is a proper region, not because that it is near or not the south border of the winter monsoon, but rely on that where winter temperatures (T) correlate closely to precipitations(R). No such good correlation was found in North China. A correlation map between T and R based on the observations for 1951-2007 can prove this point of view. Less variance of T is explained by snowfall days in the most north and the most

C188

south of the region studied supported the idea.

A:We agree. We deleted these sentences on Page 104, changed with the “winter temperatures correlate closely to precipitation” as reviewer suggested.

2. Page 106 line 24 It is needed to note that the length of Chinese Fen or Cun may change in Qing Dynasty, the scale used in the paper was accepted in late Qing and early 20th century, it may or may not differ in early time.

A:We agree, and added “the scale is varied in early time of Qing Dynasty and present day” on page 106.

3. Page 118 Fig 2 It is suggested that to show the correlation coefficient for 1951-2007 on the upper right corner, to give the confidence interval for low frequency curve, but not for annual value, and to use a filter rather than 10-year smoothing.

A:We totally agree. We have plotted new figure based on this comment. Please see Fig 2.

4. Page 119 Note please what is WT and so on.

A:Yes, we have noted the meaning of WT, and others in the caption, please see caption of figure 3

5. Conclusion This paper in first time of China gives the annual series of winter temperature for the period longer than that observation is available. Therefore,it seems acceptable. The methodology used is proper. The result is easy to understand.

A: Thank you for this comment.

Interactive comment on Clim. Past Discuss., 8, 103, 2012.

C189

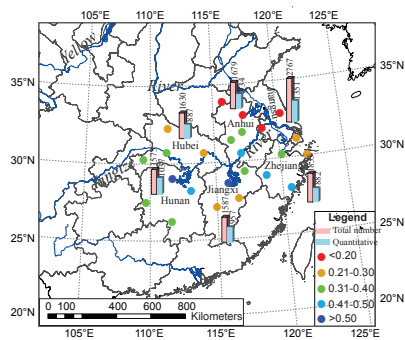


Fig. 1. Locations of stations (dots) used to reconstruct regional winter temperature

C190

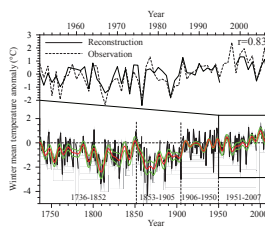


Fig. 2. Winter mean temperature anomalies from 1736 to 2007 with 95% confidence interval,

C191

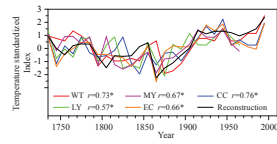


Fig. 3. Comparison between the different reconstructions from historical documents and our reconstruction