Interactive comment on “An underestimated record breaking event: why summer 1540 was very likely warmer than 2003” by O. Wetter and C. Pfister

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Both commenters, P. Yiou as well as Anonymous Referee #1, agree that this is an interesting paper. They also state that some supplementary information on the data and the methodology used, as well as some modifications (e.g. readability of the axis labels) are necessary.

The data, as the authors of this paper admit (p. 2701, line 12), are already published by Meier et al. (2007). They present a corrected version and do not focus on the data themselves but just explain the corrections. Also the homogenization procedure is described in another paper of the authors (p. 2705, line 20).

So why is this still an interesting paper?

The authors claim that the year 1540, according to the "numerous contemporary narrative documentary reports" was an extreme, maybe the most extreme, year and that this fact is not reflected adequately in the temperature reconstructions based on grape harvest data. If this is true, it is obvious that one has to find at least some kind of explanation to assure the usefulness of grape harvest data for temperature reconstructions.

The authors try to combine documentary evidence with grape harvest data. This could be a further step in refining the temperature reconstruction and it could be a fruitful step, as it is for example mostly not even possible to reliably identify grape varieties and style of wine produced, which both influence grape harvest data.