Interactive comment on "Examining bias in pollen-based quantitative climate reconstructions induced by human impact on vegetation" *by* Wei Ding et al.

Anonymous Referee #1

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This is a very careful and thorough study that uses different type of pollen data-sets to establish the climate-pollen transfer functions. By selecting natural and human-impact pollen spectrum, the bias effect from human impact on the climatic reconstructions was clearly illustrated. The workload is extraordinary (synthesis on a 1600 pollen record) and the methodology is also robust. I thus highly recommended this paper and I trust it will attract wide interest from paleoclimatologists and paleontologists.

I have only one suggestion on this manuscript. It is essential to reveal the relationship between modern pollen and climate, i.e. to illustrate how important the specific climatic variable (annual precipitation in this case) in explaining the pollen communties. This ms has given detailed numbers (in Table 1) but I think an ordination diagram (bi-plot,

environmental variables vs pollen taxa, for both natural and human-impacted dataset) illustrating the importance, significance and the interactions among environmental variables will be preferable. That will also clear show the difference in pollen communites between natural and human-impact scenarios.

Interactive comment on Clim. Past Discuss., doi:10.5194/cp-2017-63, 2017.