

## ***Interactive comment on “Documentary evidence of droughts in Sweden between the Middle Ages and c1800” by Dag Retsö and Lotta Leijonhufvud***

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” Method”. We agree with the referee and have tried to develop the discussion of method, which in essence consists of close reading, evaluation and counting of mentions of different words for “dry”, “drought” (and precipitation) that made us conclude that a year had been unusually dry. Referee 2 also criticise our statistical analysis. We agree with that too, and propose a much shorter version, since we came to realize that the many correlations presented in the first version did not say much of particular value – and simply excluded most of the analysis of instrumental values – Moberg et al have already done that much better than we ever could. We argue that a proper regression analysis to the material would be – as it stands now and with the present available data – to overreach the explanatory capacities of the original data. As for

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including data from different stations – yes, that might have been more appropriate. However, merging data from different stations into a composite precipitation series, in combination with different lengths of the series from the stations would be a paper of its own – and then we couldn’t present new documentary data on droughts from the database. The referee does not like “precipitation index” in a paper of drought. We have used this term since most data considered have been about too little rain causing the drought. The referee asked for more details on the database, which we have tried to present in a better and more comprehensive way – where it comes from, how it was created and that it will soon be publicly available at the Bolin Centre for Climate Research. However, the database is in Swedish. We can’t see how that could be changed, since the documents underlying the excerpts of the database are in Swedish. Should we translate the database? Translations are very tricky and misunderstandings and anachronisms would be bound to occur. Historical descriptions and data are of course bound within their historical, political, religious, legal and geographical context. Translation of a database of more than 20,000 excerpts is out of limit for the authors. The referee was very critical to our figures. Most of them have been taken away. The referee is not satisfied with our discussion and that we are too hesitant in describing the index as a drought index (and not as a “good-summer-weather-index”). We have reworked the paper and try to show that although correlation is higher between temperature and precipitation, the original data used ARE descriptions of drought or wetness rather than descriptions of hot or cold. But in Sweden, high temperatures results in dryness and cold temperatures in wetness. We are very grateful to both referees and they have much improved the paper. Yours truly, Lotta Leijonhufvud Dag Retsö

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