

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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Answers to ‘Interactive comment on “Documentary evidence of droughts in Sweden between the Middle Ages and c 1800”. #Refereew1 State of the art: We acknowledge the referee’s view that a proper “State of the art” at the beginning of the paper. However, we preferred to keep a natural discussion though out the paper. #Referee 1 : “References missing” & Referee 2:” Method”. We agree with both referees and have tried to develop the discussion of method. 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 anything of particular value. However, 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

C1

capacities of the original data. #Referee 2 do 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. #Referee 1 suggests a genuine question to the paper, which we have provided in the new version: “Is it possible to distinguish periods of drought in Sweden through documentary sources from the 15th till the 18th century?” Both Referee 1 & 2 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. Referee2 was very critical to our figures. Most of them have been taken away. Referee 1 criticise Fig 1 for odd scales (also that it ranged from -4 to 4, which we found very odd, since our own figure ranged from -3 to 3). We have tried to fix this. Referee 2 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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C2