

Interactive comment on “Increased aeolian activity during climatic regime shifts as recorded in a raised bog in south-west Sweden during the past 1700 years” by R. de Jong et al.

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First of all I want to state that the article is highly interesting, very well written and very clearly structured. The pro and contra of the authors' hypothesis was very well discussed.

However I would have some minor questions, remarks or perhaps suggestions for improvement:

1. In chapter 3 (page 387 - line 24) you talk about the "upper 160 cm of the core". The total length of the core is never mentioned in the text and I found it a bit difficult to get hold of the core stratigraphy. Perhaps it would be nice to include figure 2 of the paper

of de Jong et al (2006) also in this paper to have a quick and easy overview on the whole core stratigraphy.

2. In chapter 3.2 (page 388 - line 15) you divide the quartz particles into three grain-size classes you refer to as "fine sand (125-200 μm), medium sand (200-350 μm) and coarse sand (>350 μm)". I wonder why you separated the grain size fractions not according to a standardized classification such as the Wentworth scale or the DIN 4022, which define fine, medium and coarse sand slightly different. Using the standard grain-size definition would make it easier to compare your results to similar (future) investigations, perhaps of other working groups.

3a. The correlation of your results to European cultural and climatic phases is to some extent necessary. However, this is sometimes quite difficult, as you mention yourself, especially as some phases like the Little Ice Age (LIA) lack a uniform definition. As a result I got a bit confused on your correlations: In chapter 5.2 (page 396 - lines 17ff) it seems as if you equate the Maunder Minimum (1640-1715 AD) with the Little Ice Age and compare your ASI data to that; whereas in figure 3 Little Ice Age lasts from ~1200 to 1850 AD, a period which seems to be quite well reflected in the testate amoebae data. I would suggest to perhaps clarify the definitions of the referred phases a bit more (this review paper might help: Matthews, J. A., and Briffa, K. R., 2005: The 'Little Ice Age': Re-evaluation of an evolving concept. *Geogr. Ann.* 87A, 17-36.).

3b. Do you think it might be possible to correlate your ASI data to a reconstruction of the palaeo-NAO (e.g. from Glueck, M. F., and Stockton, C.W., 2001: reconstruction of the North Atlantic Oscillation 1429-1983. *Int. J. Climatol.* 21, 1453-1465)?

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