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Climate of the Past Discussions

Interactive comment on "Spatial structure of the 8200 cal yr BP event in Northern Europe" *by* H. Seppä et al.

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The authors present a synthesis of existing early to mid Holocene pollen and stable isotope records, pointing to a south-north decrease of the reaction of those two proxies to the 8.2ky-event. Two alternative explanations are offered, with the first invoking a smaller cooling or even warming of the northernmost sites during the event and the second proposing a smaller or non-existing reaction of the proxies to an assumed winter cooling.

Although both explanations are hypothetical and demand further, specifically designed studies in order to be rejected or maintained, I would prefer the second, just because it does not collide with paleoceanographic evidence for a 8.2 kyr cooling in the Barent Sea (Duplessy, Cortijo et al. 2004).

The paper is very informative, well written and certainly should be accepted for publication after very minor revisions. I only found one minor point, which the authors might want to revise if they should be inclined to follow my reasoning:

- Page 166, line 16, Abstract: It is a little bit to general to blame the arctic regions to be not optimal for detecting past climate changes, just because a specific event is not showing up in two proxies from a few sites in Scandinavia. Why not state that it is important to investigate those events with a multitude of different proxies from different types of archives and different places, in order to go beyond 'cooling or warming' and 'wet or dry'. Those non-expressions might even be the key to a better understanding of the events and their preservation in the archives. The phrase is somewhat softened in the last paragraph of the paper, ...

- Page 178-179, Line 27 to 12, Conclusions: .... but still is a bit to negative in my opinion. Why should we give up to work on biological proxies in those regions, if they are so promising to better describe and understand such events?

Reference: Duplessy, J. C., E. Cortijo, et al. (2004). "Marine records of Holocene climatic variations." Comptes Rendus Geoscience 337(1-2): 87-95.

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