

Interactive comment on “Impact of Holocene climate variability on lacustrine records and human settlements in South Greenland” by T. Guillemot et al.

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This is an interesting paper that reports new records of flood events in Greenland. The conclusions reached by the authors might be correct, however, it is difficult to be convinced. Some interpretations need better arguments, especially the comparison with other records. My comments are within the annoyed copy of the manuscript.

1. Does the paper address relevant scientific questions within the scope of CP?

Yes, the paper is within the scope of CP.

2. Does the paper present novel concepts, ideas, tools, or data?

C2691

The paper presents new data

3. Are substantial conclusions reached?

In some respect yes, especially regarding the influence of Climate on the human occupation in Greenland

4. Are the scientific methods and assumptions valid and clearly outlined?

Scientific methods are fine, although one may argue that diatoms content –if any, may have biased the grain-size results. Assumptions should be better supported by present day observation, e.g. the processes behind the formation of laminae, ... The occurrence frequency of floods seems to be statistically weak (5 periods of high floods characterized by 10 event only)

5. Are the results sufficient to support the interpretations and conclusions?

I don't think so. The interpretation relies a lot on comparisons with other records. These comparisons are not convincing because the type of records are different, and their location is not close to the sites investigated here (which is quite important for a flood record). Moreover the comparisons are only qualitative. Finally the records are not at the same time resolution.

6. Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)?

Yes

7. Do the authors give proper credit to related work and clearly indicate their own new/original contribution?

Yes

8. Does the title clearly reflect the contents of the paper?

I suggested a modification

C2692

9. Does the abstract provide a concise and complete summary?

Rather yes, although I also made some comments

10. Is the overall presentation well structured and clear?

Yes

11. Is the language fluent and precise?

Yes, but I'm not a native English speaker

12. Are mathematical formulae, symbols, abbreviations, and units correctly defined and used?

Yes

13. Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated?

Yes, see my comments in the annotated version of the manuscript

14. Are the number and quality of references appropriate?

Yes

Is the amount and quality of supplementary material appropriate? Not relevant

Please also note the supplement to this comment:

<http://www.clim-past-discuss.net/11/C2691/2015/cpd-11-C2691-2015-supplement.pdf>

Interactive comment on Clim. Past Discuss., 11, 5401, 2015.