

Interactive comment on “An introduction to stable water isotopes in climate models: benefits of forward proxy modelling for paleoclimatology” by C. Sturm et al.

A. Moberg (Editor)

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Dear authors,

Three referees have now reviewed your manuscript. They all agree that the introductory general overview parts of the text is written in a style that is easy to read for non-specialists. Their opinions differ, however, regarding the quality and usefulness of the presentation of your own new experiments.

Referee #1 expresses some concerns about the relevance and the labelling of the three experiments as "present", "pre-industrial" and "mid-holocene", which is considered to be misleading given that all share the same SST and sea ice forcing. On the contrary,
C700

Referee #2 explicitly states that he does not see any problem with this, as it should be clear to the reader that the experiments are sensitivity experiments rather than attempting to represent the true conditions for the respective periods. Referee #3 does not comment this point explicitly at all, but rather welcomes your efforts to discuss the mechanisms behind SWI variations and the interpretation of SWI data in paleoclimate.

Given the concerns raised by Referee #1, I would recommend you to reconsider the way you label and present your new results. Furthermore, if possible, I would welcome an extension of the experimental section that also includes analyses of model simulations with more realistic SST and sea ice forcing.

Finally, I encourage you to submit a revised manuscript that takes all referee comments into account. Any revised manuscript will be sent out for peer-review.

Sincerely, Anders Moberg

Interactive comment on Clim. Past Discuss., 5, 1697, 2009.