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Biogeosciences
Discussions

Interactive comment on "Impact of CO_2 and climate on Last Glacial Maximum vegetation – a factor separation" *by* M. Claussen et al.

Anonymous Referee #1

Received and published: 18 January 2013

This manuscript describes a modelling study regarding vegetation changes during the last glacial maximum. It aims to attribute the differences in vegetation distribution to the differences in climate and the effects of the lower CO2 concentrations. It is mostly well written, the figures look nice, but the english language could be improved at places. The results are presented and pretty straightforward, so that there are no real surprises. So I recommend publication with minor revisions.

minor comments:

- Abstract. Line 6-8. I did not understand this sentence.

- p 15826, lines 10-16. The study claims that this was not done before, but they compare the results to Woillez et al. I find this confusing. Perhaps drop the claim and better

explain how similar (or different) this study is to the one by Woillez et al.

- p 15826, line 24: "... with this constraint" unclear.

- p 15827, a brief explanation on how the different functional types differ from their ecophysiology would help to understand why the distribution of PFTs should change.

- p 15837, I find the summary and conclusion rather long and somewhat repetitive. I would place the comparison to Woillez et al. at the end of the results section, and shorten the summary and conclusions section.

- I noticed that the journal abbreviations in the reference list are sometimes different (JAMES vs. J. Adv. Modeling...) and that there is a spelling mistake in the Collatz et al reference.

- Figs. 2, 3 6: It would be better to describe these as differences, rather than changes. The notion of "change" typically has a temporal meaning (differences through time), which are not dealt with in this study.

Interactive comment on Biogeosciences Discuss., 9, 15823, 2012.