

Interactive comment on “Northern Hemisphere control of deglacial vegetation changes in the Rufiji uplands (Tanzania)” by I. Bouimetarhan et al.

Anonymous Referee #2

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General Comments

The paper by Bouimetarhan et al. documents vegetation changes in the catchment of the Rufiji river in southern Tanzania based on a marine sediment core just off the coast. The study region 5–10° south of the equator is a very interesting study site as it appears to be located at the transition between south African and the sub-Saharan climate and it records also both continental and marine processes, which makes it a very valuable record. The data set is covering the very interesting time period (19.2 - 10.2 ka BP) of the transition from a dry East Africa during the LGM to the African humid period (AHP, ~15 - 5 ka BP). The findings of this study are of broader interest since pollen records from East Africa are rare but extremely important to understand the response of the ecosystems to climate variability in this climatically highly complex region. The most

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advantage of the study in my eyes is the reconstruction of the response of the coastal vegetation to the sea level rise during the deglaciation period.

Despite this interesting topic, the manuscript has some difficult parts that need some modifications. In particular, the paleoclimatic implications within the manuscript are yet not convincing. In particular, climatic systems today and for the studied time period are not well explained or incomplete and it feels that the authors discuss the different possibilities not objectively enough. I suggest for the manuscript to adjust the parts about the palaeoclimate implications.

Please find also specific and technical comments in the attached document.

Please also note the supplement to this comment:

<http://www.clim-past-discuss.net/10/C2158/2015/cpd-10-C2158-2015-supplement.pdf>

Interactive comment on Clim. Past Discuss., 10, 3931, 2014.

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