

## ***Interactive comment on “Mid-Holocene climate reconstruction for eastern South America” by L. F. Prado et al.***

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The ms “Mid-Holocene climate reconstruction for eastern South America” by Prado et al constitutes a very interesting contribution compiling and analyzing a unique set of paleoclimatic archives covering a key and controversial time-window in South America. I will not do any suggestion about the English grammar since I am not a native speaker. However I do think the authors should consider the following comments: a) The abstract is not informative and do not summarize the major findings. b) The different sections are somehow unbalanced when comparing to results and discussions. For instance section 2, particularly the atmospheric circulation, could be shortened. At this point, when authors mention the five major regions of summer precipitation in SA they do not include the center-south of central South America. I recommend the authors

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to read the article: “Garreaud, R.D., Vuille, M., Compagnucci, R. y Marengo, J. 2009. Present-day South American Climate (LOTRED South America). PALAEO3 281, 180–195. It is more appropriate to use the denomination of “South American Monsoon-like System” than “South American Monsoon system” precisely due to the lack of reversal. c) Proxy data, first line: “can be obtained from some natural elements”... the word elements could be replaced by indicators. d) Chronologies. It is not clear if C-14 ages were calibrated by authors or they were used as published in the considered papers. If the last situation is the case, I recommend to calibrate again the whole data set using the same calibration methodology. It is not clear if the spatial domain of records was built using the coordinates of Westerlies mean high level altitude, since at surface the influence of Westerlies on precipitation is restricted to the Chile and in Argentina only south of ca 40° S. So, it is necessary to remark that the selected sites are not under the influence of Westerlies (see Garreaud, et al., 2009) e) section 3.3 Change the paragraph “Figure 2 shows the spatial distribution of records...”. by Figure 1 shows.... It would be helpful to include the temporal length of the records in Table 2-5. When is mentioned “there were synthesized 120 paleoclimatological information”...it is not clear what do the author mean with synthesize. Do they apply a numerical model? While reading the ms is not understandable how the proxies (according to Q) were used to infer past scenarios of air temperature, lake levels, etc. I feel that the authors should discuss more in depth the way followed to propose the different climatic scenarios for MH including a more detailed discussion of the regional paleoclimatic variability. In general the paper is good in significant, scientific and presentation quality. I consider that the publication should be accepted after a minor revision.

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