

Interactive comment on “Parallelisms between sea surface temperature changes in the western tropical Atlantic (Guiana basin) and high latitude climate signals over the last 140 000 years” by O. Rama-Corredor et al.

O. Rama-Corredor et al.

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1 I had great difficulties to follow the paper due to English language grammar and inconsistencies. I did a bit of work on it. Please note that I highlight in yellow words that need to be deleted, and in blue words to add. I recommend to get assistance from an English colleague.

Reply Thanks for your corrections. We have incorporated them all in the text of the manuscript.

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2 Methods. State how do you use the last occurrence of *P. obliquiloculata* as this event is diachronous according to Prell, ranging from 50 ka in the Caribbean Sea to 35 ka in the Atlantic Ocean

Reply As you mention the presence of *P. obliquiloculata* in the sediments is diachronous. The disappearance of this species in Gulf of Mexico occurred 60 ka BP, in the Caribbean sea 50 ka BP and in the equatorial Atlantic 35 ka BP (Prell and Damuth, 1978). In Vicalvi (1999) it was indicated that the biohorizon YP.Obliq was between 40-42ka. López-Otálvaro et al. (2009) studied the biostratigraphy in this MD03-2616 core and used 40 ka. In the Amazon fan ODP942 core Maslin et al. (2000) was used 40 ka as biohorizon in the area. We keep the same criterion as in Lopez-Otalvaro et al (2009)

3. Fig. 2. The “triangles” or tie points are not clear

Reply We have modified the figure and now the points are bigger.

4. Fig. 3 caption. Indicate which core.

Reply -This is now indicated. Core B is Sajama

5. Fig. 4 (C). Indicate where is the OMZ activity

Reply - According to the Levitus database, the OMZ is 200-600m depth (Levitus, 1982; see the Figure 1 attached to this report). This is now indicated in the caption of this figure in the manuscript.

6. Figs. 2, 3, 4, 5. Indicate clearly in the figure captions which lines represent precession and which insolation.

Reply - This is now indicated. in all figures “Precession is represented by a dashed line and daily insolation at 7°N by a solid line”

References cited in this file:

Levitus, S. E.. Climatological atlas of the world ocean, NOAA Professional Paper 13, US Government Printing Office, Washington DC, 1982 López-Otálvaro, G. E., Flores, J. A., Sierro, F. J., Cacho, I., Grimalt, J. O., Michel, E., Cortijo, E., and Labeyrie, L.: Late pleistocene palaeoproductivity patterns during the last climatic cycle in the Guyana Basin as revealed by calcareous nannoplankton, *eEarth*, 4, 1-13, doi:10.5194/ee-4-1-2009, 2009, 2009. Maslin, M. A., Durham, E., Burns, S. J., Platzman, E., Grootes, P., Greig, S. E. J., Nadeau, M. J., Schleicher, M., Pflaumann, U., Lomax, B., and Rimington, N.: Palaeoreconstruction of the Amazon River freshwater and sediment discharge using sediments recovered at site 942 on the Amazon Fan, *J. Quaternary Sci.*, 15, 419-434, 2000. Prell, W. L., and Damuth, J. E.: The climate-related diachronous disappearance of *Pulleniatina obliquiloculata* in late quaternary sediments of the Atlantic and Caribbean, *Marine Micropaleontology*, 3, 267-277, [http://dx.doi.org/10.1016/0377-8398\(78\)90031-2](http://dx.doi.org/10.1016/0377-8398(78)90031-2), 1978. Vicalvi, M. A.: Zoneamento bioestratigráfico e paleoclimático do quaternário superior do talude da Bacia de Campos e platô de São Paulo adjacente, com base em foraminíferos planctônicos, *Anu. Inst. Geocienc*, 22, 117-119, 1999.

Please also note the supplement to this comment:

<http://www.clim-past-discuss.net/11/C1378/2015/cpd-11-C1378-2015-supplement.pdf>

Interactive comment on *Clim. Past Discuss.*, 11, 1143, 2015.

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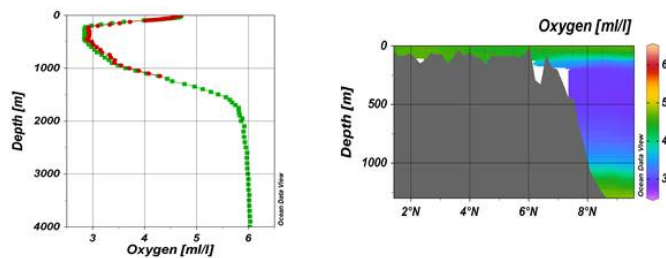


Fig. 1. Representation of oxygen minimum zone in the Guiana area

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