

Dear Editor,

Thank you for the letter and the reviewer's report. Please find below a point-by-point response to the reviewer's comments. A revised manuscript is attached with the main changes [marked in blue](#).

We hope you find this satisfactory and look forward to hearing from you soon.

Yours sincerely,

Irene Malmierca Vallet, and co-authors.

REVIEWER 2

Minor comments:

Minor comment 1: p2 l3: "... believed to been have risen ...", delete "been".

Response to minor comment 1: Done.

Minor comment 2: p2 l30: "The second part ... focuses".

Response to minor comment 2: Done.

Minor comment 3: p7 l32: The reference on winds in glacial climate is still included (Pausata et al., 2011). Again, this is misleading because this study concerns a different background climate. Stone and Lunt, 2013 is not included in the list of references.

Response to minor comment 3: The reference of Pausata et al. (2011) has been removed. And, the reference of Stone and Lunt (2013) is now included in the list of references.

Minor comment 4: figure 1: I would have chosen a symmetric function for the nonlinear fit, such as x^2 , unless there is a reason to expect an exponential dependency. However, there is no need to revise the figure.

Response to minor comment 3: For the nonlinear fit, we apply an exponential function because (1) it fits the data well and (2) it makes the comparison of results from different variables easier.