

Interactive comment on “Wind regimes during the Last Glacial Maximum and early Holocene: evidence from Little Llangothlin Lagoon, New England Tableland, eastern Australia” by James Shulmeister et al.

P. Hesse (Referee)

paul.hesse@mq.edu.au

Received and published: 22 April 2016

1604 Shulmeister et al CP-2016-41 Llangothlin

General Comments The paper is a welcome addition to the literature on terrestrial palaeoclimates in Australia. It is based on a region from which we have had very little information but which this group is now contributing several high quality studies. The application of single grain OSL dating is very welcome and gives great confidence in the timing of lunette construction. The main results and conclusions appear to be sound, although in places the explanation seems incomplete and some conclusions

[Printer-friendly version](#)

[Discussion paper](#)



seem to be over-extended. Confirmation (with high quality dating) of high lake levels, lunette construction and westerly winds at this latitude is very welcome. Although (and surprisingly) the authors do not mention the alternative arguments for LGM poleward migration of the westerlies (see Harrison and Dodson, but also summary by Kohfeld et al 2014), the New England tableland is very well placed to test the alternative hypotheses. It can (and does) rule out poleward migration. However, I think the authors over-extend the implications of this site to say that it demonstrates the location of either the westerly band of surface winds or the westerly jet since they have demonstrated that there was no change relative to present but the westerlies form a very wide band!

Specific Comments I have made specific and technical comments on the PDF. There are few technical comments. Perhaps because of length constraints, the arguments and data are somewhat curtailed. However this is not adequately supplemented with additional data, such as particle size analysis.

Figure 1 is OK but it is hard to locate the GPR transect or work out the relationship of the two halves (Fig 2): I only worked it out on the third or fourth viewing. The interpretation of the multiple populations of OSL SG ages is not clear from the point of view of the geomorphic and/or pedogenic processes which may be at play. There are some missing opportunities for citation of a wider literature but it is the absence of a supporting citation for pollen records (line 311) which is the most glaring.

Please also note the supplement to this comment:

<http://www.clim-past-discuss.net/cp-2016-41/cp-2016-41-RC1-supplement.pdf>

Interactive comment on Clim. Past Discuss., doi:10.5194/cp-2016-41, 2016.

Printer-friendly version

Discussion paper

