

Interactive comment on “Late Cenozoic continuous aridification in the western Qaidam Basin: evidence from sporopollen records” by Y. F. Miao et al.

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REVIEW OF: Late Cenozoic continuous aridification in the western Qaidam basin: evidence from sporopollen records. By Miao, Y.F.; Fang, X.M.; Wu, F.L.; Cai, M.T.; Song, C.H.; Meng, Q.Q.; Xu, L.

TO THE EDITORS

General comments

As I am not an expert in the geological, paleontological and palaeoclimatic history of China I have concentrated on the more editorial type details in this paper that require

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fixing before the paper can be recommended for publication. The science and logic behind the paper has not been examined in any detail as the paper needs to be edited into better English before such reviews can be made so that it is clear what the authors are meaning.

I appreciate that the authors are writing in a foreign language and so I have tried to remedy this in the attached tracked .docx file of the paper. I stress that to bring it up to publication standard even further work will be required as the conversion of the pdf to a .docx file has caused conversion and additional formatting problems in the text, and I have concentrated only on the more obvious inconsistencies.

Furthermore I worry about a paper that is so completely dependent on previously published data without the authors reviewing the work on which their paper is based. This is particularly the case for Core F2 where the authors do not know the number of samples and in which no detailed pollen analyses were apparently carried out or published and as far as I can tell the core does not really fill in the interval between the two prime cores they discuss.

The paper seems to be mainly a review paper using existing published data to formulate a climatic history. In this I am not sure that the sampling detail is sufficient and I worry about the fact that so much information that the paper requires to make it a coherent whole is referred to by reference to other papers but without any summary of their conclusions being given. For example, the stratigraphy is presented as though there is continued sedimentation from 18 Ma to the present day and I find that hard to believe. For example, the data that seems to be available bridging the gap between cores KC-1 and SG-3 appears virtually non-existent or at the very most unusable. For example, there is little or no discussion about dispersal of pollen which could make all the difference to the interpretation; and some of the comments in the following list need attending to.

I recommend that this paper be thoroughly checked for its English and then resubmitted

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to referees.

Some additional comments

These comments mainly reinforce comments made on the attached .docx file.

1. P. 1486: The last phrase of the abstract “that the Tibetan Plateau uplift also contributed in contrast to the East Asian summer monsoon” seems to lack something. A contrast is mentioned as existing but no comment is made as to what this contrast is. The abstract is meant to be read independently of the paper and this comment should either be deleted or expanded.

2. P. 1489: Surely the authors can determine the number of samples examined?

3. It is not clear whether the pollen sums of the two principal cores are the same. If so it should be stated; if not then Fig. 3 will need to be emended.

4. P. 1490: Nitraria is show in Fig. 3 to markedly decrease not increase with time between the two major cores.

5. P. 1490: There is no such thing as a “Podocarpus climate”. Do you mean mesothermal conditions?

6. Pp. 1490-1: I assume that in each case you mean “less precipitation” than the previous taxa require – say so.

7. P. 1490 and elsewhere: There is confusion throughout the text as to “taxa” and “pollen”. For example on p. 1490 there is talk about taxa increasing when there is no evidence of that presented in the paper. The pollen does increase but that does not necessarily mean an increase in taxa. Similar statements are made with respect to conifers, herbs, etc.

8. P. 1506: In Fig. 3 delete “arbors” and insert trees. For the subdivision of the pollen types use “trees” and “Shrubs and Herbs”. Also change “arbors” to “trees” in Fig. 5c (p. 1508).

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9. P. 1497ff: Ensure that all the references are presented in the style recommended by the journal.

10. Note that Ding et al., 1998 is missing from references (should this be Ding et al. 1992 which is correctly referenced but not in text?) and delete Garziona et al., 2005 and Wu et al., 2008 from references as they are not referred to in the text.

I strongly recommend that the paper be looked at and re-written in better English (I appreciate that it appears someone has already done this) but I cannot feel certain that I have understood what was written and therefore have had trouble determining whether the authors have actually presented anything that is new.

Interactive comment on Clim. Past Discuss., 9, 1485, 2013.

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9, C349–C352, 2013

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