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## *Interactive comment on* "Invertebrate fossils from cave sediments: a new proxy for pre-Quaternary paleoenvironments" *by* O. T. Moldovan et al.

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## **OVERVIEW**

This is a worthwhile paper, well-executed research, and of broad interest. It is very concise, which may cause the reader to follow the cited literature, but this is probably okay. A detailed study of 3 sites in a region, but more importantly demonstrating how one might make use of such deposits and approach in order to answer questions of broad import. Excellent figures and good overall organization.

SPECIFIC NOTES KEYED TO MARKED MS

A. Or just an extreme flow event? Perhaps discuss more.

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B. Or perhaps an extreme flood event, or a case where less "filtering" from an input ponor was occurring? May be useful to discuss this a bit more for the reader.

C. The presence of magnetozones so old in caves is unusual. Please cite the article determining this for this line.

**RESPONSEs TO EDITOR QUERIES** 

1 Does the paper address relevant scientific questions within the scope of BG?

Yes, certainly. It encompasses the record of paleobiota in cave sediments.

2 Does the paper present novel concepts, ideas, tools, or data?

Yes, the regional nature of the investigation and the concurrent application of paleohydrology, dating, and paleobiology are unique and provide great promise for application in other areas.

3 Are substantial conclusions reached?

Well, sort of, but the most important "conclusions" are not those in the traditional sense flowing from the site specific data. The ramifications of the site-specific results are, to me, not as interesting as the demonstration that this sort of analysis can be applied. In this sense the conclusions are more far-reaching.

4 Are the scientific methods and assumptions valid and clearly outlined?

For the most part, yes. The reporting of the age information is relegated to citing of earlier papers, probably just to save space. The soecifics being left out, particularly for correalatingh the various sediment levels with the fossils is a bit hard to follow.

5 Are the results sufficient to support the interpretations and conclusions?

Yes.

6 Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)?

Mostly, but see point 4 above for limitations.

7 Do the authors give proper credit to related work and clearly indicate their own new/original contribution?

Yes.

8 Does the title clearly reflect the contents of the paper?

Yes 9 Does the abstract provide a concise and complete summary?

Yes.

10 Is the overall presentation well structured and clear?

Yes.

11 Is the language fluent and precise?

Yes, for the most part. I have marked some suggested edits in the uploaded pdf file.

12 Are mathematical formulae, symbols, abbreviations, and units correctly defined and used?

Yes.

13 Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated?

Yes

14 Are the number and quality of references appropriate?

Yes

15 Is the amount and quality of supplementary material appropriate?

Yes.

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Please also note the supplement to this comment: http://www.biogeosciences-discuss.net/8/C1037/2011/bgd-8-C1037-2011supplement.pdf

Interactive comment on Biogeosciences Discuss., 8, 3403, 2011.