

Interactive comment on “Element/Calcium ratios in middle Eocene samples of *Oridorsalis umbonatus* from Ocean Drilling Program Site 1209” by C. F. Dawber and A. K. Tripathi

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This paper has received two expert reviews, both of which highlight the same two main issues as well as several minor ones. The reviewers seem to regard these as interesting and hard-won datasets that they would like to see published eventually. However, I concur with their view on the two major issues:

(a) The BGD calibration paper is absolutely essential input for the CPD paper. The authors should think hard about which material belongs in each paper. As editor for the CPD paper, I cannot usurp the BGD process by insisting on what is in that paper. However, it would certainly be easier to follow the CPD paper if all the uncertainties

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and influences on the core top data had been fully discussed in the BGD paper so that they were already available as input for this one.

(b) By eye as well as statistically there is really very little commonality on any timescale between the 4 X/Ca records shown in Fig 1. I therefore fully agree with the reviewers that it is hopeless to write the paper from the viewpoint that these records can supply a useful record of delta-carbonate. Rather it will have to be written as an illustration that core top data do not reveal the full complexity of factors involved in X/Ca ratios; I am not convinced that the records possess sufficient commonality (even after you take out Mg/Ca) for it to be safe to discuss the variability in delta-carbonate based on them.

I do think you have the data for a worthwhile paper here, one that could eventually be published in CP itself. However I would have to send a newly-prepared CP version for review again and I do not think this would be useful until (1) the BGD paper is in an almost-final, accepted state as a basis for this one, and (2) this paper is recast as an exploration of the controlling factors, not as an exposition of carbonate changes.

I would encourage you to respond to the reviews now (or within the next month). In any case, all comments have to be answered by you in the public discussion before a revised manuscript can be considered for final publication. In this case, I suggest you hold off on preparing a new (CP) version until there is progress on the BGD paper. I can make sure the editorial staff give a generous deadline for any submission to CP.

Interactive comment on Clim. Past Discuss., 7, 3795, 2011.

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