

# Introduction to the Forum on the Flood/post-Flood boundary

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The location of the Flood/post-Flood boundary is an important issue for Flood geology because it is the starting point for a host of research questions. Many papers have been published on this topic, but its placement is still controversial. Three main views are advocated: a low Flood boundary in the Paleozoic or below, a boundary at or near the Cretaceous-Tertiary boundary (now the Cretaceous/Paleogene boundary), and a variable boundary towards the upper Cenozoic but with each geographical area to be evaluated on its merits.

In 2012 Marcus Ross published a biostratigraphic analysis and argued that a Flood/post-Flood boundary at or near the Pliocene/Pleistocene on the geological column was untenable,<sup>1</sup> and that the Cretaceous/Paleogene (or K/T) is the highest possible post-Flood boundary. In a brief letter exchange, Tasman Walker argued that the palaeontological data is biased by hidden assumptions, making Ross’s conclusions on the boundary premature. The two-stage letter exchange follows.

## Forum contents

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## Post-Flood boundary—a robust analysis flawed by hidden assumptions

Tas Walker

I want to thank Marcus Ross for his paper “Evaluating potential post-Flood boundaries with biostratigraphy—the Pliocene/Pleistocene boundary”<sup>1</sup> and the scholarly, robust analysis he reports. His use of biostratigraphy as an argument for the Cretaceous/Paleogene (or K/T) being the Flood/post-Flood boundary has made a valuable contribution toward understanding the issues involved in determining that boundary.

Ross argues there should be a biostratigraphic break marking the termination of Flood sedimentation, and gives a number of reasons for this. I agree with this, having previously suggested that fossils of animals ‘native’ to a continent would be useful for classifying its various rocks within a biblical geological framework.<sup>2</sup>

From the online Paleobiology Database, Ross examines the North American mammalian fossils to try to determine a specific location on the geological column that could be considered the post-Flood boundary. However, it is incorrect to try to find the post-Flood boundary using the geological column in this way. The problem is that the column is not a physical reality, but a hypothetical construct. The assignment of rock units to the column depends on many different assumptions. The same sort of assumptions feed into the fossil classifications contained in the Paleobiology Database.

This is especially problematic for any analysis that covers Cenozoic sedimentation. Compared to the regional to subcontinental scale of some Paleozoic and Mesozoic sedimentary rocks, Cenozoic sediments tend to be of more limited geographical extent and geographically isolated.<sup>3</sup> Thus, in order to assign these sediments onto a position on the geological column, uniformitarian geologists use a variety of criteria consistent with their beliefs about how geological processes operated in the past. The problem is that their assignment may or may not be compatible with the processes involved in the biblical Flood, which they deny ever occurred.

Any evaluation of the Flood boundary needs to be done using physical evidence—rock units that have been mapped

on a geological map, described in a geological report, and which can be observed and examined in the field. Fossils of native animals may be helpful for classifying such a rock unit within a biblical model. But, even in this situation it is important to use *multiple* classification criteria, and obtain a consistent result across a number of criteria.<sup>2</sup>

Ross notes that views among creationist geologists are mainly divided between a boundary at the Cretaceous/Paleogene (K/T) and one at the Pliocene/Pleistocene, citing Oard as representative of the latter view. However, this misrepresents what many advocates of a late Cenozoic post-Flood boundary are saying. Their idea is that the biblical correlation of each geographical location needs to be assessed on its merits.

Oard discusses this in his paper “The geological column is a general Flood order with many exceptions”, concluding that, “Cenozoic strata can be early Flood, late Flood, or post-Flood depending upon the location and the particular fossil used to define the Cenozoic.”<sup>3</sup> That being the case, it is futile to try to determine a single location on the geological column for the post-Flood boundary because no such location would exist.

Thus, this biostratigraphical assessment is not able to determine the post-Flood boundary because it does not deal with the primary data. The data it uses has been biased and confused with too many uniformitarian assumptions. In order to evaluate the reliability of this approach the following process is needed:

1. Consider each of the fossils in the database one by one.
2. For each fossil, recover the original scientific paper in which the fossil was classified onto the geological column.
3. From that paper determine the geographical location and geological unit in which it was found.
4. For each geological unit, using geological maps, map commentaries, and relevant geological literature, determine where that geological unit should be assigned within the biblical geological framework. Multiple classification criteria consistent with the biblical Flood and its aftermath should be used. For example, for each geological unit consider its geographical size, thickness, relationships with other units, fossil content, deformation, and erosion, etc.<sup>2</sup>
5. Before any confidence can be placed in this application of the Paleobiology Database it still needs to be checked for accuracy. In particular the identification and name assigned to each fossil needs to be checked because, among other issues, different names are routinely assigned to the same species.<sup>4</sup> For this analysis to be reliable, we need to check that the fossils named and assigned in the database are indeed unique to North America. In other words, does the fossil truly represent a

native extant animal in the region, or could it be related to animals from other parts of the world? Transportation of animals by water during the Flood would be a significant factor.

The physical, geographical location of the Flood/post-Flood boundary will become clear as we proceed with such an analysis.

Thus, the paper’s conclusion, “Placement of the Flood/post-Flood boundary at or near the Pliocene/Pleistocene boundary [is] untenable”, is not justified from the biostratigraphical analysis reported. There are too many hidden assumptions in the data used; that is, in the way the geological units and fossil animals have been assigned to the geological column. The only reliable way to determine the location of the post-Flood boundary is to examine the primary geological data using an analysis that assumes biblical history.

## References

1. Ross, M.R., Evaluating potential post-Flood boundaries with biostratigraphy—the Pliocene/Pleistocene boundary, *J. Creation* 26(2):82–87, 2012; [creation.com/biostratigraphy-post-flood-boundary](http://creation.com/biostratigraphy-post-flood-boundary).
2. Walker, T., A biblical geological model; in: Walsh, R.E. (Ed.), *Proceedings of the Third International Conference on Creationism*, Creation Science Fellowship, Pittsburgh, PA, pp. 581–592, 1994; [biblicalgeology.net/Model/A-biblical-geological-model-ICC-paper.html](http://biblicalgeology.net/Model/A-biblical-geological-model-ICC-paper.html).
3. Oard, M.J., The geological column is a general Flood order with many exceptions, *J. Creation* 24(2):78–82, 2010; [creation.com/images/pdfs/tj/j24\\_2/j24\\_2\\_78-82.pdf](http://creation.com/images/pdfs/tj/j24_2/j24_2_78-82.pdf).
4. Here is one example from dinosaur fossils: New Analyses Of Dinosaur Growth May Wipe Out One-Third Of Species, *ScienceDaily*, 31 Oct 2009; [www.sciencedaily.com/releases/2009/10/091031002314.htm](http://www.sciencedaily.com/releases/2009/10/091031002314.htm). Based on Horner, J.R. and Goodwin, M.B., Extreme cranial ontogeny in the upper Cretaceous dinosaur *Pachycephalosaurus*, *PLoS ONE* 2009; DOI: 10.1371/journal.pone.0007626Improving our understanding of creation and its history.