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Discussions

Interactive comment on "Reviews and Synthesis: To the bottom of carbon processing at the seafloor" *by* Jack J. Middelburg

D. E. Canfield (Referee)

dec@biology.sdu.dk

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Review of Middelburg " Reviews and Synthesis: To the bottom of carbon processing at the seafloor"

This MS is a summary of Middelburg's acceptance speech for the Vladimer Vernadsky prize. I view this as a thoughtful contribution attempting to integrate various views of the processing of organic matter at the seafloor. The approach is commendable and I believe that this will be a valuable framework for scientists, especially young ones, to access and integrate various views on sediment carbon processing. I must admit that nothing in this piece surprised me, and that Middelburg's view on the relationship between life and carbon diagenesis pretty much conforms with the way I have rationalized

these interactions myself. But, never mind, I think many will find this very inspiring.

I have made numerous comments on the .pdf of the MS. Some are stylistic, but many of are more substance. For example, researchers of sediment diagenesis are not actively ignoring the various sub-disciplines that study carbon turnover in sediments, and I think also that many incorporate a wider set of sub-disciplines than implied here. Indeed, one could write a very different paper highlighting the relatively few multi-disciplinary approaches attempting to bridge the disciplinary gaps highlighted here. Many of these papers would be by the author, his students and close associates. I also realize that a paper like this could have 100's of references, but I also think the referencing is a bit thin in places. These points have been highlighted directly on the MS pages. Overall and enjoyable read that should be of great value to the community.

Don Canfield

Please also note the supplement to this comment:
https://www.biogeosciences-discuss.net/bg-2017-362/bg-2017-362-RC3-supplement.pdf

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