

March 24, 2017

Dr. Kenneth De Baets
Academic Editor
PeerJ

Dear Kenneth,

Included with this letter is the revised version of our paper (including several new figures). We have tried to address all of the comments and criticisms that you and the reviewers provided (as I shall detail more fully below), and I hope that the paper is now ready for the publication. We thank you for the time and thought that you put into our paper as the academic editor. Also, in case it would be helpful, I have also included the version of our manuscript showing all of the changes tracked. If I can provide any additional information on the changes we have made to our paper please do not hesitate to contact me. Thank you very much for your time and consideration.

Sincerely,



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How we have addressed the Academic Editor comments and annotations:

We have changed the title of the paper as you requested. We have also provided much more detail on the morphology of the specimens. Further, we have included an interpretative drawing, several new figures, additional references, and integrated the SEM/EDX analysis that was formerly in the supplementary material into the main text. Moreover, regarding the SEM figures, we have delimited the fossils as requested to show where the fossil stops and the matrix starts (as reviewer 2 requested). Indeed, several of the suggestions that you and the other reviewers made involved requests to add or modify figures. The collections manager in the Division of Invertebrate Paleontology at the University of Kansas, Julien Kimmig, has

significant expertise in this area, and he provided yeoman's work in this area, as well as contributions to the text in the manuscript itself, so we included him as an author on the paper.

How we have addressed reviewer 1's comments:

When we had first submitted the manuscript we were not aware of MacGabhann's thesis work, which was very relevant to this paper. Thus, we are grateful to you for selecting him as a reviewer. In his review, he provided very helpful comments and given that he is such an expert on these type of fossils, we recognized that the paper would not be complete without the incorporation of his revised taxonomic concept for the group and the inclusion of his new work in this area. In order for the paper to reach its full potential, we realized that it would make the most sense to ask him to be a co-author and revise the paper along the lines that he suggested in his review, while getting him to incorporate the most up to date knowledge on these enigmatic organisms. Thankfully, he accepted our offer, made the changes he suggested initially, as well as several others, and is now included as a co-author. The changes made in this regard include:

- a) Referencing MacGabbhan's thesis at several points throughout the paper, in particular in the discussion of the SEM/EDS work that he had done such as analyses on *Discophyllum* from other localities.
- b) Providing a sketch interpretation of the fossil and highlighting where on the specimen the SEM work was conducted so as to distinguish the fossil from the host sediment.
- c) We have also provided illustrations of the other specimens as requested.
- d) We have corrected the information on the whereabouts of the type specimens.
- e) We have adjusted the interpretations of *Plectodiscus* and *Aysenspriggia* in the text.
- f) Based on his interpretations and input, we now assign the specimens to the genus *Discophyllum* but no longer include a species level assignment.

How we have addressed reviewer 2's comments:

- a) We now provide figures of all of the specimens assigned to *Discophyllum* and have created a new and better figure for the specimen that was originally shown.
- b) As requested, we now include the SEM/EDS element maps data in the manuscript (and not as supplementary files).
- c) We now also show boxes on the photographs indicating the areas studied with SEM and EDS.
- d) We also added scale bars to the figures.
- g) We provide more discussion of the affinities of disc shaped fossils, now include a discussion of the affinities of our new material relative to *Aspidella*, and have added references to Lyda Tarhan's work.

How we have addressed reviewer 3's comments:

- a) We have added several new figures, and improved the quality of the figures, as requested.
- b) We no longer suggest a definitive connection to porpitids and instead suggest that the specimens might represent eldonids or something else.
- c) We have provided a scale bar instead of magnification value as requested.