

Biogeosciences Discuss., referee comment RC1
<https://doi.org/10.5194/bg-2021-138-RC1>, 2021
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Comment on bg-2021-138

Antonino Briguglio (Referee)

Referee comment on "Photosynthetic activity in Devonian Foraminifera" by Zofia Dubicka et al., Biogeosciences Discuss., <https://doi.org/10.5194/bg-2021-138-RC1>, 2021

This is a very interesting contribution where a Devonian foraminiferal taxon is supposed to have had some sort of photosymbiotic activity. Whilst most of the discussion is deeply speculative, the evidence the authors provide does not leave much room for other explanations than kleptoplastidy, at least during limited time frames of the foraminifer cell's life. I feel the authors should go a bit deeper into the life strategy of this taxon as it was indeed restricted to the photic zone but perhaps could have been mixotrophic most of the times and just sporadically host single chloroplasts after digestion of their prey, keeping them alive for as much as they could. After all, we are just at the beginning of photosymbiotic strategies for foraminifera and things could have been much more unstable as we can observe them today.

Literature they refer to, is not the most recent one.

Most of the comments are directly on the MS

regards

Antonino Briguglio

Please also note the supplement to this comment:

<https://bg.copernicus.org/preprints/bg-2021-138/bg-2021-138-RC1-supplement.pdf>