

Comment on bg-2022-127

Katrine Husum (Referee)

Referee comment on "Unique benthic foraminiferal communities (stained) in diverse environments of sub-Antarctic fjords, South Georgia" by Wojciech Majewski et al., Biogeosciences Discuss., <https://doi.org/10.5194/bg-2022-127-RC1>, 2022

This manuscript presents new data on living (stained) benthic foraminifera from sub-Antarctic fjords on South Georgia. In addition to living (stained) foraminifera sedimentological and geochemical analyses have been conducted enabling detailed comparisons with environmental parameters. Statistical analysis has been employed using principal component and canonical correspondence analysis. The results are clearly presented and discussed. There is a general lack of information on sub-Antarctic living (stained) benthic foraminifera. Further, the current study does very applaudably investigate two size fractions (63-125 μm , >125 μm), hence these data are very scientific relevant and sought-after. However, during analysis only a minimum of 150 specimens were identified and counted from each size fraction. That is not enough to obtain a statistically robust basis for a scientific investigation of living (stained) benthic foraminifera. At least 300 specimens from each fraction are necessary for a scientific investigation. Within foraminiferal bio-monitoring a target value of 300 is recommended (Schönfeld et al., 2012); this is not biomonitoring. The samples need to be analysed further to obtain a robust quantitative basis for scientific interpretations (at least 300 counted specimens from each size fraction) before this manuscript may be publishable.