

Interactive comment on “Community change of microorganisms in the Muztagata and Dunde glacier and climatic and environmental implications” by Yong Chen et al.

Anonymous Referee #2

Received and published: 13 March 2016

It is difficult to understand that reason why the authors compared two glaciers on their cell density and $18\text{O}/16\text{O}$ in the precipitation, but only analyzed the microbial composition on one of these glaciers. It will be more persuasive if both glaciers were compared not only in their numbers but also in their microbial composition.

If the authors could do more comparison between two glaciers, they might find out some common rule in the relationship between cells distribution and $18\text{O}/16\text{O}$ ratio (or climate events) .

Line 304-305, The authors stated that “This strengthens the importance of post-deposition”, but in the discussion session, there is no more discussion to indicate how does these results strengthen the importance of post-deposition. I could see any direct

C1

link between them.

Line 177 It can't be named as “groups Cryobacteria,”, because that the similarity is only 65%-76%. In such a low similarity, it was nothing related with these genus.

It was not clarified what the purpose of showing the Changes in physical-chemical and biological records in the Muztagata ice cores? There is no any microbial analysis in this study for Muztagata ice cores. Therefore, it is nonsense to present the physical-chemical property of Muztagata ice cores.

Line 333, it should be “ISME J” but not “SME J”.

Line 399 the title of Figure 2 was wrong. The figure is nothing related with mineral particles.

Interactive comment on Biogeosciences Discuss., doi:10.5194/bg-2015-637, 2016.

C2