

The Cryosphere Discuss., referee comment RC1 https://doi.org/10.5194/tc-2021-208-RC1, 2021 © Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.

Comment on tc-2021-208

Lukas U. Arenson (Referee)

Referee comment on "Glacier–permafrost relations in a high-mountain environment: 5 decades of kinematic monitoring at the Gruben site, Swiss Alps" by Isabelle Gärtner-Roer et al., The Cryosphere Discuss., https://doi.org/10.5194/tc-2021-208-RC1, 2021

Dear authors,

I really enjoyed reading your manuscript. The case of the Gruben site clearly demonstrates the complex dynamics of the glacial, para- and periglacial environments and how their response to climate change varies. There is no simple and unique answer. Longterm monitoring is essential, and your contribution demonstrates the value of such monitoring networks. Overall, the paper is well developed, but the manuscript could benefit from editorial modifications. I added some suggestions in the attached, annotated version of your manuscript. I know that the authors prefer to use the term rockglacier in one word. While I generally agree that using a single term may help to better differentiate rock glaciers from glaciers, the single term usage has not yet been able to assert itself. In fact, it may be counter productive as some readers may say that rock glaciers and rockglaciers are two different landforms. Again, I do understand the rational, but maybe it is more beneficial to use the two-word term. Just a little food for thought.

Please also note the supplement to this comment: <u>https://tc.copernicus.org/preprints/tc-2021-208/tc-2021-208-RC1-supplement.pdf</u>