

Interactive comment on “Delayed and rapid deglaciation of alpine valleys in the Sawatch Range, southern Rocky Mountains, USA” by Joseph P. Tulenko et al.

Yeong Bae Seong (Editor)

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Dear Authors,

Most of all, thanks for submitting a well-written paper. The dataset should be very interesting and robust enough to be shared with other geo-scientists working in the area and similar settings.

I read through the comments by a guest and two reviewers, most of which are relevant and productive. As you can see, the two reviewers are very positive at the manuscript and the dataset but do not like the some parts of the present content. I hope you can

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make good responses and modification, point by point.

I would add below some personal comments as well, which are not overlap with the ones by reviewers.

- Ln 271-2: "We find that all three valley glaciers did not begin significantly retreating until ~5 – 6 kyr after the culmination of the LGM in the Sawatch Range". You cannot jump over the gun like above because you are based on the different types of samples (i.e. Moraine erratics VS bedrock). Moraine boulders can indicate advance or stagnation (As you know there is some debate on the implication of ages of boulders on a moraine. Polished bedrock usually indicates the timing of deglaciation as you did. There should be differentiation on the interpretation of ages of two types sampled (Reviewer 2 told about this problem). You may want to make more explanation and discussion on this matter.

Figure 2: Can you separate the type of samples for ^{10}Be dating? For example, erratics (open circle) Vs bedrock (filled circle).

Figure 3: How about showing the sample number on the picture (or on the sampled boulder or bedrock), which is better to readers?

I hope the authors would like to incorporate most of comments raised, which should be conducive to improve the present manuscript.

Best, Associate Editor Yeong Bae Seong.

Interactive comment on Geochronology Discuss., <https://doi.org/10.5194/gchron-2020-13>, 2020.