

I think the addition of Figure S4 is very helpful for interpreting the results, but would like to see more discussion put into the 'offsetting' effects of increased snow processes throughout the majority of the year and more of an attempt to disentangle the effects from snowmelt and glacier melt. For example, in the supplementary you show decreases of snow storage (S3), snow cover (S3), and snowmelt rate (S4) with increasing temperature, but increasing glacier melt (S4) (it would be better if S3 and S4 had the same range for x-axis for easier comparison). Grouping snowmelt and glacier melt into the same term is misleading as they represent two water storages with very different residence times and thus different consequences of ecosystem vulnerability to warming scenarios.

- The results from Figure S4 imply the increase in Jan-Feb discharge (Figure 5b, 6a) is caused by increases in glacier melt, since snow melt rates decrease during this time (and all times). Is this correct? Based on the larger magnitude of glacier melt during the summer from Figure S4, I would have expected larger changes in discharge to occur in the summer (i.e. more blue pixels during May-Jun and Sep-Oct compared to Jan-Feb).
- Why do increases in discharge occur from snow processes during Jan-Feb (Figure 5, 6a) if snowmelt rate decreases during this time and glacier melt is close to 0? Can you rescale the y-axis in Figure S4 so that each plot is comparable (i.e. averaged over the entire basin)?
- Based on the results from Figure S4, the offsetting effect is solely due to increased glacier melt, as snowmelt is shown to decrease under warmer scenarios for all months. This needs to be discussed more as the water stored in glaciers is finite, thus this offsetting effect will be eliminated under warmer scenarios when the glaciers have completely melted.

L11: Please specify what an interaction of the variables means in the abstract since more than half of your results are due to the interaction and understanding the interaction is vital.

L14: When applicable, please mention whether the 'changes' are positive or negative. Switching the language to 'increases' or 'decreases' would ease in interpreting the main results. You use the terms 'changes' and 'differences' throughout the manuscript and it would be easier to interpret if you clarify if they are positive or negative changes.

L14 / 386: This is still one of my biggest concerns in regards to interpreting your results. Again, I think the term 'partially offset' is misleading as discharge clearly decreases due to increases in evaporation and the increased snow processes barely make a difference. Also, be consistent of what the low flow period refers to. Earlier in the manuscript lowflow referred to Sep-Oct, now you are including Nov too. I feel that the main take-away from the second experiment (Figure 5), which should be emphasized more in the abstract and conclusion than the offsetting from snow processes, is that simulated discharge is lower in every month and primarily caused by increases in evaporation.

Further, since these results do not distinguish between snow melt and glacier melt, this is problematic if most of this offset is due to glacier melt (as indicated by S4), which is a finite supply of water, thus will eventually disappear given enough warming. I think you should clarify that this 'offsetting' will not occur in future warmer scenarios when the glaciers are depleted and more precipitation falls as rain compared to snow.

L201: Rewrite “For example, temperature and precipitation are linked as the type of precipitation (rain or snow) is dependent on temperature.”. It is still confusing what the interaction of the forcing components refers to.

L242: change “in stead” to “instead”.

L274: The term ‘snow processes’ is still confusing to me. Why is ‘liquid precipitation’ in parentheses following ‘snow processes’ (again in L361). Are you referring to snowmelt and not rain?

L293/301: Please include the complete figure reference (i.e. Figure 5b & 5d instead of panel b and d). Further, please add more references to the figures when possible for justifying your statements. For instance, on L302 you write “Substantial influence of rooting depth on the evaporation simulation is visible”, but nothing is ‘visible’ if there is no reference to a figure or table for the reader.

L349: Why switch “increased” to “exacerbated”, they have opposite meanings here?

L382-384: Please specify whether the ‘differences’ or ‘changes’ are positive or negative when applicable here and throughout the manuscript.