

## ***Interactive comment on “Hydrological modelling and future runoff of the Damma Glacier CZO watershed using SWAT. Validation of the model in the greater area of the Göschenenalpsee, Switzerland” by Maria Andrianaki et al.***

**Bettina Schaeffli (Editor)**

[bettina.schaeffli@unil.ch](mailto:bettina.schaeffli@unil.ch)

Received and published: 13 February 2019

Reviewer 1 asks about the use of snow data for model calibration. The authors do not further answer why they did not use snow data (in-situ or remotely-sensed). In exchange, they discuss that there are glacier observations but simply state at the end of their response: "We didn't use it for the calibration of the model because we didn't think it would add to the purpose of the study at this stage."

This response is surprising since hydrological model development in high alpine ar-

C1

eas is known to strongly benefit from snow and glaciers observations. Such data in particular is required to assess whether the model gives the right answer for the right reasons. In my view, not using any additional data for model calibration is not acceptable for a paper whose purpose is to show the potential of the model in this kind of environments (see the scope of the paper in the response to reviewer 2: "In this manuscript, we wanted to show not only the applicability of SWAT on a glacierised watershed but also to assess its transferability in different spatial and temporal scale and subsequently to test whether it can be applied on a high altitude glacierised ungauged watershed for runoff simulation and climate change simulations").

If the authors maintain that additional data is not useful for the purpose of this study, this should be carefully justified in the revised version.

---

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2018-493>, 2018.

C2