

**Optimizing rock glaciers activity classification in South Tyrol: integrating
multisource data with statistical modelling**

Supplementary material

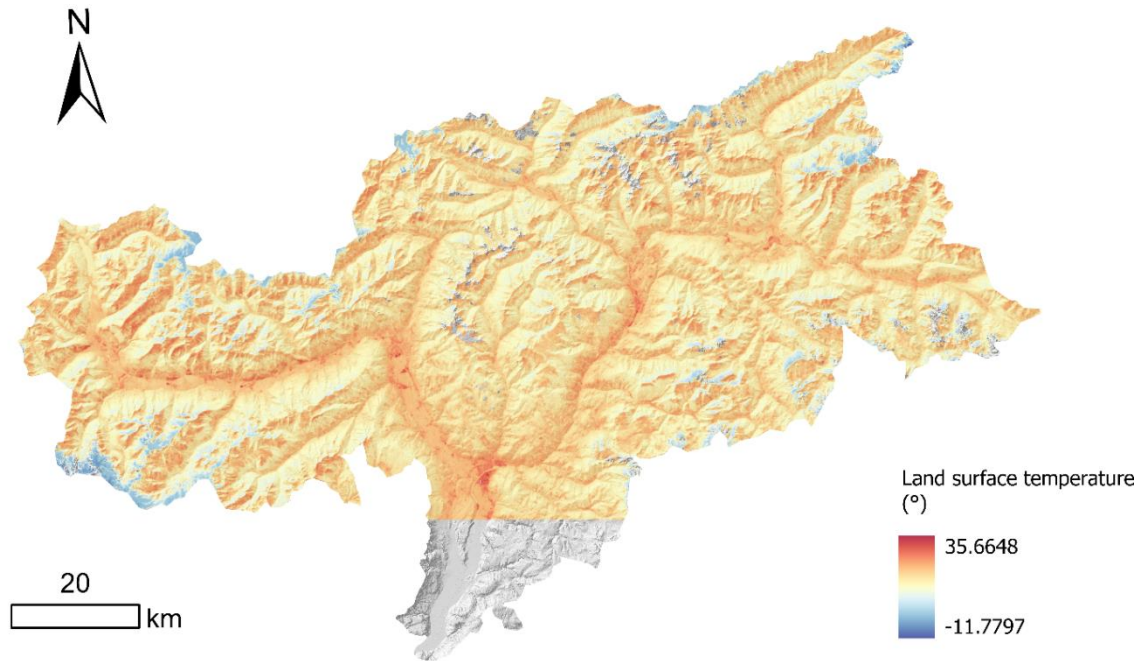


Figure S1: mean land surface temperature for September months between 2013 and 2023.

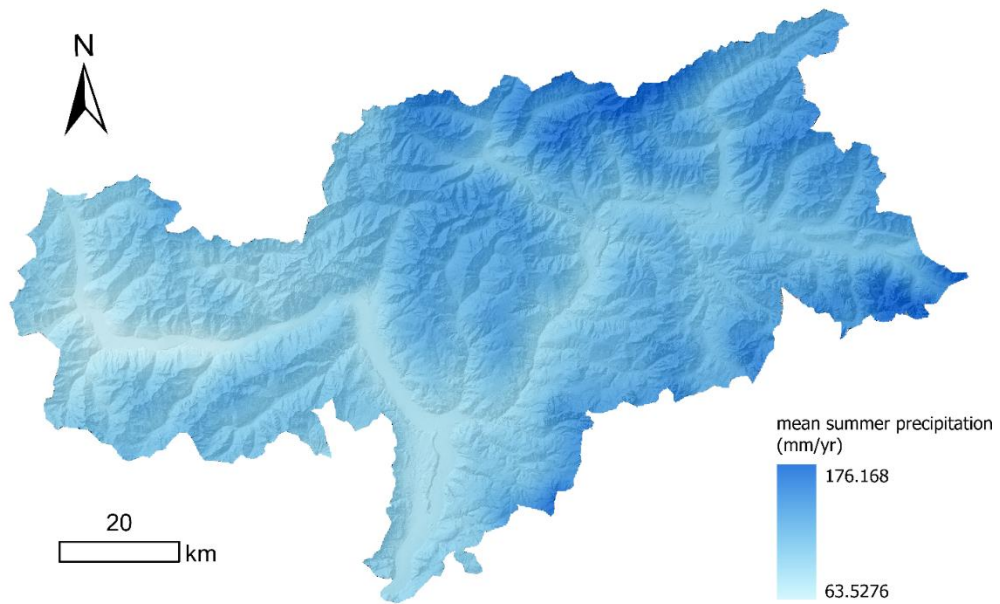


Figure S2: mean summer precipitation (solid and liquid) from 2000 to 2018 computed as interpolation from ground weather station values. See Crespi et al., 2021.

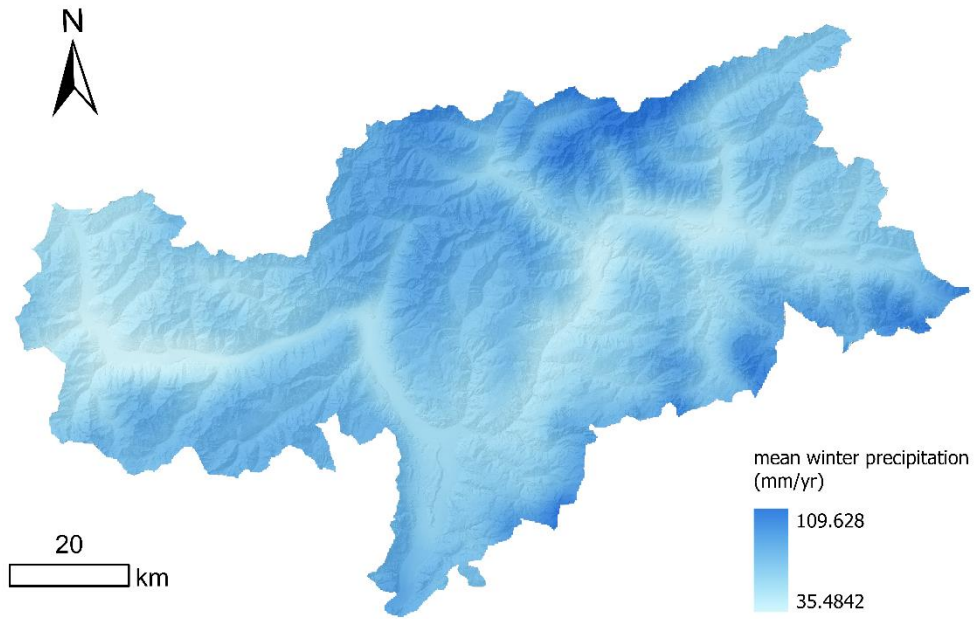


Figure S3: mean winter precipitation (solid and liquid) from 2000 to 2018 computed as interpolation from ground weather station values. See Crespi et al., 2021.

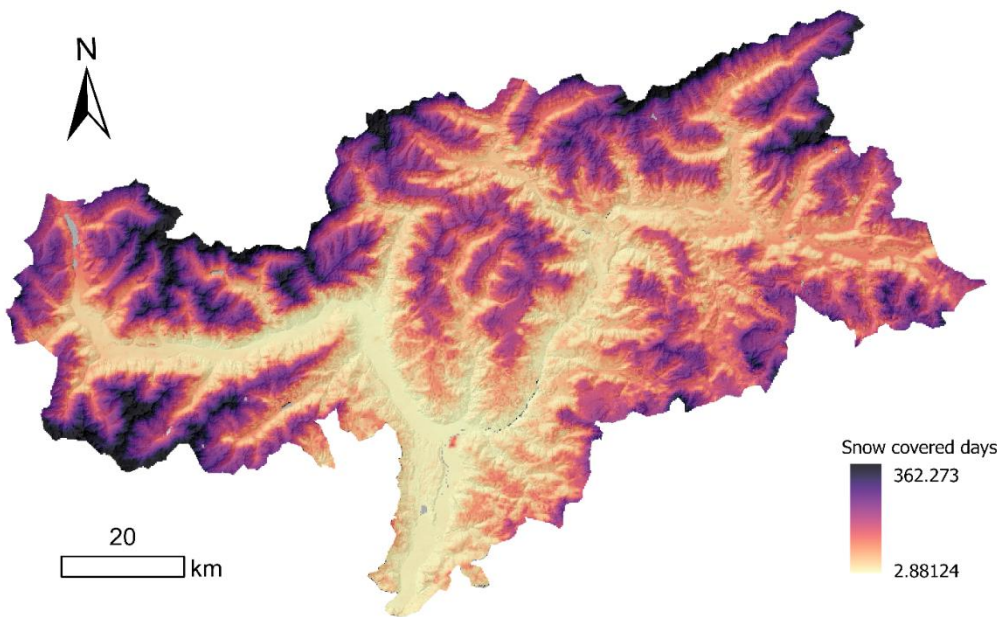


Figure S4: mean snow cover duration (SCD) map from MODIS data. Snow covered days are computed as mean value between 2013 and 2023.

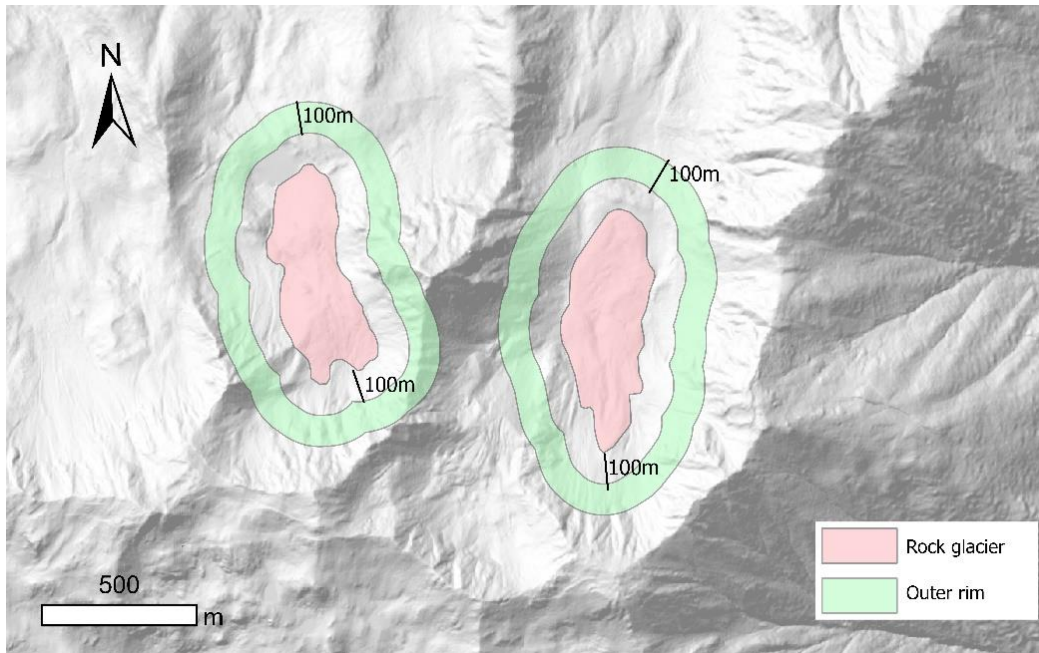


Figure S5: areas used to extract statistics of the environmental and morphological descriptors: rock glacier polygon and the surrounding rim of 100m.