



## **Landslide frequency in a changing climate: synoptic scale weather types as predictors of landslide occurrence**

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The climate of the past 50 years has warmed at an unprecedented rate due to anthropogenic activity. A warmer atmosphere has resulted in increased storminess and changes in the distribution and intensity of precipitation events. The effect that this may be having on the size and frequency of landslides has been discussed in the literature; however, to date such changes have remained undetected in the observational record, possibly due to the incomplete recording of landslides, and complexities inherent in the system.

In this study we suggest a method for using an incomplete landslide inventory to identify periods of high landslide activity associated with specific synoptic weather types. We suggest methods for understanding the relationship between future changes in synoptic weather types and landsliding, and discuss the applicability of this method for other regions, outside of the European Alps.