



Snow cover evolution during the fifty past years in the Hautes-Fagnes (Belgium) using the regional climate MAR model.

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The MAR model is a regional climate model originally developed for the polar regions to study the surface mass balance. In this study, the MAR model has been adapted to Belgium in order to study the snow cover evolution of the Hautes-Fagnes (south-east of Belgium), a region covered by snow one to two months per year. As validation, we have successfully compared MAR based daily snow heights with snowcam-based observations. Then, the model has been forced by ERA-Interim since 1958 to study the snow cover evolution during the fifty past years at the summit of Belgium. The results show no trend despite an observed increase in temperatures.