



## **Spatiotemporal analysis of precipitation change during the Younger Dryas cold period: a modelling study**

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In Northwest Europe, proxy-based reconstructions have suggested that the Younger Dryas cold period may be sub-divided in a relatively cold and humid first part and a warmer and drier second part. In Scandinavia, the later part of the Younger Dryas climate was characterized by a notable increase in variability. These changes in climatic conditions during the Younger Dryas event have been linked to a northward shift of both the winter sea-ice margin in the North Atlantic Ocean and the main storm track. Recently, we performed transient simulations of the Younger Dryas climate, performed with a global climate model. In this study, we perform a spatiotemporal analysis of these model results to see to what extent our model has been capable to reproduce the reconstructed changes in precipitation. In our Younger Dryas simulation, the main storm track is located at 55°N, resulting in relatively high precipitation rates in mid-latitude Europe. In contrast, our model suggests dry conditions in Northern and Southern Europe.