



## **Reconstruction of the glacial maximum recorded in the central Cantabrian Mountains (N Iberia)**

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The Cantabrian Mountains is a coastal range up to 2648 m altitude trending parallel to northern Iberian Peninsula edge at a maximum distance of 100 km inland ( $\sim 43^{\circ}\text{N } 5^{\circ}\text{W}$ ). Glacial sediments and landforms are generally well-preserved at altitudes higher than 1600 m, evidencing the occurrence of former glaciations. Previous research supports a regional glacial maximum prior to ca 38 cal ka BP and an advanced state of deglaciation by the time of the global Last Glacial Maximum (Jiménez-Sánchez et al., 2013).

A geomorphological database has been produced in ArcGIS (1:25,000 scale) for an area about 800 km<sup>2</sup> that partially covers the Redes Natural Reservation and Picos de Europa Regional Park. A reconstruction of the ice extent and flow pattern of the former glaciers is presented for this area, showing that an ice field was developed on the study area during the local glacial maximum. The maximum length of the ice tongues that drained this icefield was remarkably asymmetric between both slopes, recording 1 to 6 km-long in the northern slope and up to 19 km-long in southern one. The altitude difference between the glacier fronts of both mountain slopes was ca 100 m. This asymmetric character of the ice tongues is related to geologic and topo-climatic factors.

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