



## **Younger Dryas glaciation and climate in the Mourne Mountains, Northern Ireland**

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Here we investigate glaciation and climate in the Mourne Mountains, Northern Ireland, during the Younger Dryas (YD; c. 12.9–11.7 ka BP), using a combination of field-mapping, remote sensing and glacier mass balance modelling. Results indicate that small, independent (likely snow-field fed) glaciers occupied the mountains during this period, with Equilibrium Line Altitudes (ELAs) ranging from  $\sim 450$  to 708 m above sea level. Based on these estimates, mass balance modelling suggest a  $\sim 8^{\circ}\text{C}$  reduction in mean annual temperature at the YD (assuming precipitation values comparable to present). Despite this, though the chronology and style of glacial retreat from the Last Glacial Maximum would suggest that the reconstructed glaciers relate to the YD, new radiocarbon dating of basal contact organics (conducted as part of this investigation) has been unable to conclusively verify a YD age.