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WÜRMIAN MAXIMUM GLACIATION IN CORSICA: GLACIER EXTENT AND MESOSCALE CLIMATE

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Investigation of glacial deposits and trimlines in Corsica enabled us to provide a new reconstruction of the maximum extent of glaciers during the (early) Würmian and to estimate the ancient equilibrium line altitude (ELA) pattern. The ELA was probably lowered to <1500 m a.s.l. in the centre, and to ~1750 m in the drier northeast and the warmer southwest of the island. Lowering of the ELA by ~1300 m during the maximum glaciation in the Würmian period is equivalent to a mean annual temperature drop of ~8 ºC. The central and northern mountains of Corsica, with elevations >2300 m, were strongly glaciated, with glaciers up to 14 km long extending to altitudes as low as 500 m. Relics of high-altitude Miocene paleosurfaces display a remarkable potential for self-amplifying accumulation of relatively large icefields.

Moisture advection from the SW and accumu-lation of drift snow leeward of NW-SE trending ridges triggered local transfluence of ice across the main drainage divide. We argue that the regional distribution of the ELA in the NW Mediterranean during the Würmian indicates a higher frequency of Genova cyclons following N- to NE-directed storm tracks.