



A multidisciplinary approach for the reconstruction of the last deglaciation in Torrion, NW Scotland.

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During glaciations, north-west Scotland is particularly sensitive to fluctuations in the Gulf Stream, causing variations in ice volume and extent. The Last Glacial Maximum (23.7-22.0 ka BP) was followed by rapid deglaciation, interspersed with stillstands and readvances, which culminated in the Loch Lomond Stadial readvance during the Younger Dryas cooling event (12.5-11.5 ka BP).

Deglaciation and readvance is evident from the complex array of glacial features which are particularly striking in the Torrion area of Scotland. These have been investigated using a number of approaches: Field mapping, aerial photography, digital elevation models, ground-based LiDAR investigations, ^{10}Be Cosmogenic nuclide dating and comparison with modern analogues in Alpine (Switzerland) and Arctic(Svalbard) regions.

Geomorphological mapping studies indicate multiple ice extents and reconfiguration of local ice-cover during the last deglaciation. Cosmogenic dates ranging from Dimlington Stadial (17.2 ± 1.54 ka BP) to Loch Lomond Stadial (11.3 ± 0.78 ka BP) age, suggest that ice was present in the Torrion region during the Late Glacial Interstadial and that final deglaciation took place through either a steady back-wasting of ice into cirques, or rapid backwasting and readvance.