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¹⁰Be Chronology for the Deglaciation of the Western Margin of the British-Irish Ice Sheet, Ireland

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Following advance of the British-Irish Ice Sheet (BIIS) margin onto the continental shelf during the Last Glacial Maximum, the ice sheet experienced widespread retreat, losing up to two-thirds of its mass by 17 ¹⁴C kyr BP. AMS ¹⁴C dates of fossiliferous marine mud from sites along the Irish Sea Basin identify a major readvance of the ice sheet over the north and central lowlands of Ireland and the northern Irish Sea Basin at approximately 14 ¹⁴C kyr BP (Killard Point Stadial). Well-dated records at Corvish, County Donegal, suggest a similar-age advance of the northwestern sector of the Irish ice sheet, indicating ice-sheet wide response to climate and sea level forcing. Ice readvance caused widespread transport of subglacial sediment to ice margins, particularly around bays where large moraines were formed. We sampled boulders for ¹⁰Be dating from moraines in the north and west of Ireland that are most likely coeval with the Killard Point Stadial. Samples were collected from quartz-bearing erratics from three distinct moraine sequences located in the north (Bloody Foreland, County Donegal) and west (Ox Mountains, County Sligo, and Clew Bay, County Mayo) of Ireland. Initial results of this study, presented at the meeting, will help address questions related to ice sheet sensitivity and enable us to assess BIIS dynamics within the context of millennial-scale climate changes in the North Atlantic during the last deglaciation.