



## **Reconstructing the last British-Irish Ice Sheet from continental shelf records: initial results from BRITICE-CHRONO**

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BRITICE-CHRONO is a large UK NERC-funded project that aims to constrain the timing and rate of retreat of the last British-Irish Ice Sheet (BIIS). Although the pattern of ice sheet retreat is reasonably well established the retreat chronology remains poorly constrained for many areas, particularly offshore. In BRITICE-CHRONO marine and terrestrial samples are being collected for dating along a series of 8 transects extending from the continental shelf edge to a few tens of kilometres onshore. The transects will yield over 800 new dates, which will be combined with existing age and landform information to undertake an ice-sheet wide empirical reconstruction of the demise of the BIIS as it underwent the transition from marine-terminating margins to being entirely land-based. This talk will present an overview of the project and highlight some of the key scientific findings from the first of two research cruises that form a central part of the project. Cruise JC106 of the RRS James Cook took place in 2014 and circumnavigated Ireland, surveying and sampling in the Celtic Sea, Irish Sea, Malin Sea, Donegal Bay and the shelf offshore of western Ireland, including the Porcupine Bank. During the 38 day cruise over 220 cores were collected as well as extensive geophysical datasets (sub-bottom profiles and swath bathymetry). Analysis of these data is now underway and is yielding important new insights into the extent, retreat style, chronology and depositional environments associated with the BIIS during and following the Last Glacial Maximum. A second cruise, planned for the summer 2015, will survey and sample the continental shelf north of Scotland and the North Sea.