



Offshore stratigraphic and geomorphological record of northeastern Ireland

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The onshore exposures on the northeast coast of the island of Ireland have been well studied in relation to regional glacial advances of the British and Irish Ice Sheet (BIIS) and changes in relative sea level change. These includes sites around Dundalk Bay, Carlingford Lough and Kilkeel in particular. During deglaciation of the BIIS, two important readvance phases are recorded locally; the Clogher Head and Killard Point Stadials. However, the offshore extent and record of these events is still poorly constrained. Understanding the nature and pattern of deglaciation of the offshore sectors of the BIIS is important to any attempt to reconstruct its history after the Last Glacial Maximum.

This study presents a new seismo-stratigraphic analysis of submarine Quaternary deposits nearshore, off the northeast coast of the island of Ireland. This includes multibeam echosounder (MBES), sparker seismic and core data from the areas of offshore Dundalk Bay, Carlingford Lough, Kilkeel and Dundrum Bay. Preliminary analysis of the data reveals a series of geomorphic features in each area including moraines, eskers, drumlinised landscapes, exposed till surfaces and infilled channels. Sediment cores will be used to further groundtruth these features and provide insights into their formation processes and timing. Initial inspection of these cores suggest two diamicton facies, assumed to be subglacial till, in the area of Kilkeel. This presentation will include results to date from this study with the aim of elucidating the glaciation and deglaciation history of geomorphologically complex area.