

NORTH DONEGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Ballycramsey
Other names used for site	Ballycramsey, Meeting House Bridge, Goorey Ridge
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Goorey
NEAREST TOWN/VILLAGE	Malin
SIX INCH MAP NUMBER	4
ITM CO-ORDINATES	643835E 951580N (at quarry)
1:50,000 O.S. SHEET NUMBER 3	GS1 BEDROCK 1:100,000 SHEET NO. 1
GIS Code ND051	

Outline Site Description

The Ballycramsey section is in a disused aggregate quarry, 100m east of the Meeting House, near the R242-L5171 junction. The feature is a flat-topped ridge, where quarrying has exposed sections of deformed bedrock and raised beach shingle.

Geological System/Age and Primary Rock Type

The bedrock is Dalradian-age metamorphosed mudstone (pelitic schist) and sandstone (psammitic schist). The shingle and cobbles are Quaternary in age, and represent a beach face shoreline that was present at the location around 15,200 years ago. The complete section represents an ice limit associated with final ice sheet advance into the Trawbreaga Bay mouth area during the Killard Point Stadial (15,200-14,000 years ago) of the last Ice Age.

Main Geological or Geomorphological Interest

The section (around 20m long by 5m high) exposed in this flat-topped ridge represents an upper beach face shoreline that was overrun by ice around 15,200-14,000 years ago. Immediately beneath the flat-topped ridge, angular rock fragments and detached slabs of deformed schist are separated by rounded pebbles and cobbles, all overlying deformed schist bedrock (glacitected thrust slabs). Well-rounded beach cobbles are welded along shear partings in what is otherwise solid schist bedrock. The shingle is capped by a layer of blown sand.

The orientation of the sheared bedrock and aligned cobbles indicates that the overriding ice-sheet moved in a north-westerly direction. Deformation is understood to have occurred subglacially, and immediately behind the margin of an ice sheet that readvanced north-westwards to the mouth of Trawbreaga Bay around 15,200-14,000 years ago (Killard Point Stadial). This ice limit can be traced south across the mouth of the bay, and almost parallel to the shoreline around the lower eastern flanks of Crockmore towards Straths Bridge.

Site Importance – County Geological Site; may be recommended for Geological NHA

This site is significant as it marks a critical ice limit which has climatic significance in terms of insights into the last Ice Age. In addition, deformation of a late-glacial upper shoreline setting has never been described before, and is therefore unique. Therefore the site merits consideration as a NHA. This site lies within the North Inishowen Coast SAC (002012) and any future promotion of these designations should include the unique geomorphological aspects of the Ballycramsey site.

Management/promotion issues

This site is on private farmland. The quarry is partially overgrown and grazing animals trample the site. No dumping occurs, and any infilling or dumping should be discouraged. The significance of the site should be included in any literature pertaining to the regional geological and geomorphological heritage. First edition OSI maps note “*remains of old salt pans*” along the nearby shoreline where a present-day picnic and parking area is beside the slipway.



View of flat-topped ridge at Ballycramsey, looking north from R242. (Section left of centre).



View of flat-topped ridge and Trawbreaga Bay, looking east from Drung townland above Meeting House.



Exposed section of schist and shingle below ridge top.



Detached schist slabs embedded in a cobble and sand matrix.



Quarry at Ballycramsey, looking west.

