

## MAYO - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	Clare Island (Moraines)
Other names used for site	
<b>IGH THEME</b>	IGH7 Quaternary
<b>TOWNLAND(S)</b>	Capnagower; Fawnglass; Maum; Glen; Ballytoohy More; Ballytoohy Beg; Bunnamohaun; Lecarow; Strake; Loughanaphuca; Toormore
<b>NEAREST TOWN/VILLAGE</b>	Clare Island
<b>SIX INCH MAP NUMBER</b>	75, 84, 84a, 85
<b>ITM CO-ORDINATES</b>	465480E 784510N (west); 470480E 786510N (east)
<b>1:50,000 O.S. SHEET NO. 30</b>	<b>GIS BEDROCK 1:100,000 SHEET NO. 10</b>
<b>GIS Code MO030</b>	

### Outline Site Description

A landscape of hummocky mounds and boulder-strewn hillocks, on the east and west side of the island.

### Geological System/Age and Primary Rock Type

The extensive cover of glacial till deposits on the island are Quaternary (Ice Age) in age, and are suggested to have been deposited during a period known as the last glacial maximum of the late Midlandian glaciation. The glacial deposits overlie Silurian and Carboniferous age bedrock.

### Main Geological or Geomorphological Interest

Much of the low-lying ground of Clare Island is draped with glacial till (sediments) deposited by large ice streams. The sediments can be divided into two main types of glacial till: the limestone-rich tills (Roscahill Till) and the sandstone-rich tills (Newport Till).

The sandstone-rich Newport Till is predominantly associated with hummocky moraine landscape. This terrain is best seen in the northeast part of the island, around the townlands of Maum, Lecarow and Capnagower. This is a classic glacial landscape of 'kame-kettle' topography. The hummocky terrain is strewn with large boulders protruding out of sand-rich tills. The limestone-rich Roscahill Till forms drumlins, and indicates the movement of ice from east to west. The limestone tills are found smeared across the north-eastern, eastern and entire southern parts of the island. Whilst limestone-rich, the erratic-bearing till also contains sandstone, siltstone and quartzite.

Studies of Quaternary landscape features on the island suggest that the island may have hosted its own glacier on the western flanks of Knockaveen (223m).

### Site Importance – County Geological Site

This hummocky topography is an excellent example of a deglacial deposit feature and is significant in revealing the development and geological history of the island's landscape during the ice ages of the Quaternary period. This is an important County Geological Site.

### Management/promotion issues

This is an excellent site in terms of macro-scale Quaternary geomorphology. The features are not deemed to be under significant threat. Quarrying near Loughanaphuca, at the west end of the island, has opened an extensive gravel and sand pit. Whilst this may be necessary, and may be of interest for research purposes (examining sections of the till), dumping in the quarry is evident and should be prohibited in this scenic and remote location. Promotion of the island's geological heritage could be included in literature accompanying the Clew Bay Archaeological Trail.



Hummocky moraine terrain at Lecarow, looking west towards Knocknaveen.



Boulder strewn hummocky moraine terrain at Lecarow.



Gravel pit near Loughanaphuca, at west end of Clare Island. Knockmore visible to the NE.



Hummocky moraine terrain at west end of Clare Island, looking north towards signal tower.

