

## MAYO - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Croagh Patrick Scree and Gullies</b>
Other names used for site	The Reek, Cruach Phadráig
<b>IGH THEME</b>	<b>IGH7 Quaternary, IGH14 Fluvial and Lacustrine Geomorphology</b>
<b>TOWNLAND(S)</b>	<b>Glaspatrick, Lenaghcraigaboy, Teevnacroaghy, Carrowmacloughlin</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Westport</b>
<b>SIX INCH MAP NUMBER</b>	<b>87c</b>
<b>ITM CO-ORDINATES</b>	<b>490620E 780510N (centre of feature)</b>
<b>1:50,000 O.S. SHEET NOS. 30,31,37,38</b>	<b>GSI BEDROCK 1:100,000 NOS. 10, 11</b>
<b>GIS Code MO037</b>	

### **Outline Site Description**

A prominent mountain peak on the south side of Clew Bay. The upper slopes are covered with accumulations of loose, angular blocks of scree.

### **Geological System/Age and Primary Rock Type**

Croagh Patrick ("The Reek") comprises mainly Silurian Cregganbaun Fm quartzite and psammite. The southern slopes (250m - 450m a.s.l.) are Bouris Fm (greenish siltstones and impure limestones). The lower northern slopes comprise Deer Park Complex (50m - 250m a.s.l.) serpentinites, schists and metabasites (metamorphosed igneous rocks). The scree deposits (talus) are remnants of debris accumulated from the last Ice Age. Prominent gullies have developed on the northern slopes, most likely in the Holocene (post Ice Age) period.

### **Main Geological or Geomorphological Interest**

Croagh Patrick (764m) is formed mainly of quartzite (metamorphic sandstone), which is very resistant to weathering (similar to the rocks found on Nephin, the Twelve Bens, Errigal and Great Sugar Loaf). The scree slopes occur mainly above 400m. The extensive cover of scree (mostly white and rust coloured), is formed by the mechanical weathering of the Cregganbaun Formation. Above 550m, where the main path to the summit passes onto and through the steep scree slopes, it can be very unstable underfoot. Ice-moulding and perched boulders occur on outcrops up to 510m elevation, but above this height the summit is covered by scree. This suggests that the upper limit of glacial erosion on the mountain lay between about 520m and the summit. Several large stream gullies have developed from continual water run-off and weathering on the flanks of the mountain. The NW slopes drain via a major gully, northwards to Lecanvey. Some 800m west of the pilgrim route, another major gully drains the steep, scree-sided slopes to the NE of the summit. The pilgrim path follows alongside a stream in another gully for a ~800m section on the lower slopes.

### **Site Importance – County Geological Site; recommended for Geological NHA**

This site is of national importance owing to the ice-moulding and extensive scree features; the gullies; the excellent serpentinite exposures; and the overall geology of the mountain in terms of the Lower Palaeozoic history of the region. The site is not within a designated SAC or NHA, and requires certain designation as a geological NHA.

### **Management/promotion issues**

Historic and continued popularity of the mountain as an ecclesiastical pilgrimage site and trekking route contributes to the erosion and displacement of scree, particularly along the path. However, the site should be protected from any infrastructure such as the construction of a permanent pathway on the hillside, or the installation of safety rails. The more inaccessible slopes are not considered to be under threat of erosion or damage. The site is a major visitor attraction and future management and conservation of the geological heritage and significance of the site could be promoted at a local visitor information and interpretation facility.



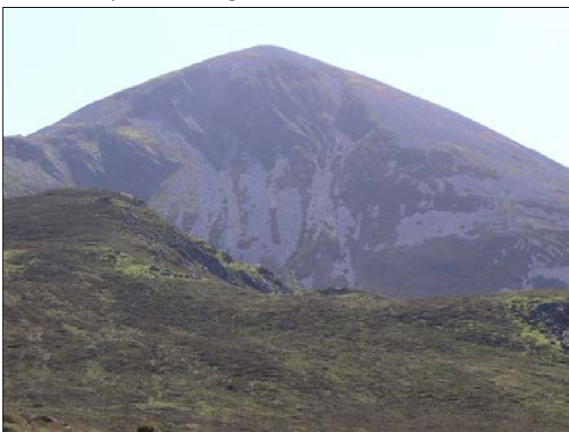
View of southwest facing scree slopes, viewed looking NW from Cregganbaun.



Pilgrim path leading from saddle up the SE facing, scree covered slopes – looking west.



Pathway through loose scree on SE upper slopes, looking east.



View of northeast facing scree slopes and gullies, viewed at start of pilgrim's path at Murrisk.



View of NW slopes of Croagh Patrick (and Ben Goram) – looking east from Balloor, outside Louisburgh.

