# LEITRIM - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE Other names used for site IGH THEME TOWNLAND(S) NEAREST TOWN/VILLAGE SIX INCH MAP NUMBER ITM CO-ORDINATES 1:50,000 O.S. SHEET NUMBER 16 GIS CODE LM013

#### **Glenade Cliffs**

Glenade Cloontypruglish, Cloontyprughlish IGH8 Lower Carboniferous, IGH7 Quaternary Shesknan, Larganavaddoge, Cleighragh, Cloontypruglish Kinlough 3 577295E 849250N (highest cliffs at Larganavaddoge) GSI BEDROCK 1:100,000 SHEET NO. 7

## **Outline Site Description**

The Glenade Cliffs form high and wide bedrock faces along the northwestern side of the Glenade Valley.

## Geological System/Age and Primary Rock Type

The upper portions of the cliffs are set in fine-grained, cherty limestone of the Dartry Limestone Formation, whereas the lowermost units are fine limestones and calcareous shales from the Glencar Limestone Formation. Both units are of Mississippian (Lower Carboniferous) age (c. 330 Ma).

## Main Geological or Geomorphological Interest

The Glenade Cliffs are 220m to 250m high limestone cliffs, which are prominent, iconic features at the northern end of the U-shaped Glenade Valley. The valley was formed during the last ice age as a consequence of glaciation. The cliffs emerged after the glacier that occupied the valley had retreated. The glacier had provided support for the steep walls of the U-shaped valley but when it melted the lack of support led to some localized collapse.

Extensive accumulations of landslipped boulder and cobble-sized blocks of Dartry Limestone have fallen off the escarpment in parts of this section of the northwestern side of Glenade. They have either dropped in steps on the underlying Glencar Limestone Formation, or rolled on the Benbulben Shale Formation below that. Scree slopes are also seen and, where the scree has become quite thick, the slopes have been incised by modern mountain streams. This means that spectacular, deep gullies are in evidence in places at the side of the valley, particularly at the southern end of the site.

#### Site Importance – County Geological Site

The Glenade Cliffs are spectacular geomorphological features within a wide and deep glacial valley, and part of the Truskmore-Glenade Area defined in this audit.

#### Management/promotion issues

The Glenade Cliffs are within the Ben Bulben, Gleniff and Glenade Complex SAC and proposed NHA. The area is popular with walkers and hikers and the site is well-served by the council car park near Eagle's Rock. From the car park a gravel road (right-of-way) leads to a walking trail that winds up the cliff face on the southern side of the site, affording views of the rock itself and the surrounding upland and valley. The latter part of the walking trail is on commonage. A mention of the cliffs and scree slopes, and the exposed stratigraphy, could form part of sign-boards and leaflets promoting the area.



Overview of the iconic cliffs, and associated scree slopes, at the northwest end of the Glenade Valley.



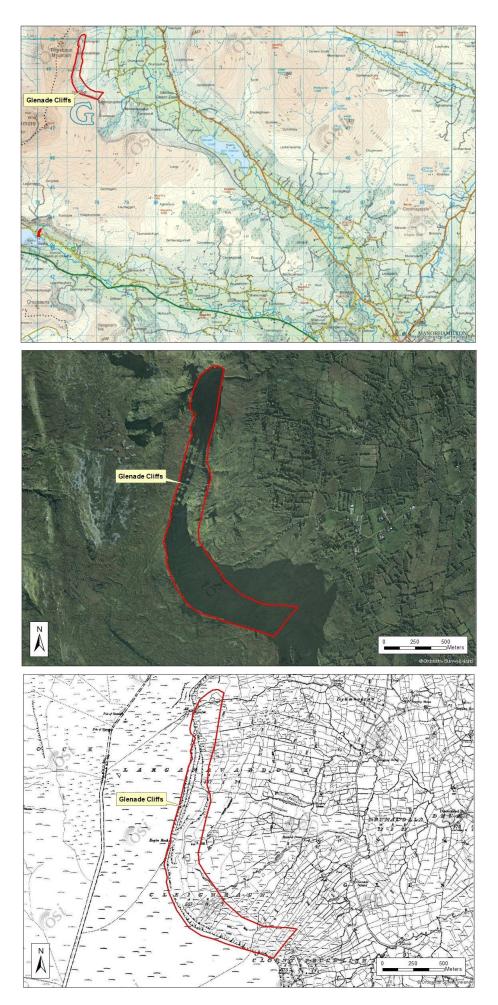


Dartry Limestone Formation overlying (darker) Glencar Limestone Formation (lower right).

Fresh scree beneath fresh cliffs, with the weathering process constant and unyielding.



The deep gullies etched into the accumulated scree at the southern end of the site.



Parkes et al., 2020. Geological Survey Ireland.