DONEGAL - 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 Nos. 10, 11
GIS Code DL034

Pollnapaste Caves Pollnapeiste Caves IGH 1 (Karst) Kincrum Lettermacaward 65

GSI BEDROCK 1:100,000 SHEET NOs. 3, 4

Outline Site Description

The complex exits from the cave are inaccessible but the dual entrance points (dry and wet) are quite spectacular, situated at the abrupt end of a deep canyon.

580077E. 899160N

Geological System/Age and Primary Rock Type

The development of the caves is post-glacial in age but the host rocks are 150m-thick beds of marble (metamorphosed limestone) of the early Dalradian Falcarragh Limestone Formation deposited between 800 and 750 Ma.

Main Geological Interest

Sinkholes, caves, springs and river capture are developed within Dalradian marbles. The site exhibits many features not seen elsewhere in Ireland. These include speleogenesis controlled by metavolcanic rocks, by tectonic folding and jointing in the marble and by semipelitic intercalations that dip 70 degrees to northeast on the northern flank of an anticline.

Site Importance: County Geological Site; recommended for Geological NHA

The karst and cave at Pollnapaste is the most extensive and best developed karst in the Dalradian marbles in Ireland. Most karst and cave development in Ireland is within Carboniferous limestone and these caves are therefore very unusual.

Management/promotion issues

Access to the cave entrances requires considerable effort via the Cleengort road from Gweebarra Bridge, through fields and woods to the rough pasture at the head of the inlet. The cave exit is on the other side of the stream. Access to the twin cave entrances is via a steep 50 metre scramble up the hill immediately behind the cave exit, then uphill along the forestry fence, with the canyon on the left. Major deforestation has greatly affected this area in relation to the karst features. Fallen trees and debris have choked cave features and rivers feeding them. Landslip is potentially a serious threat. In the longer term, should this be promoted as a potential tourist attraction, easier access could be provided from above by building a path from the Lough Derkbeg waterworks private access road.

The site boundary encloses all karst features from stream sink to rising. It is no longer well defined by a former treeline due to the deforestation, but is encompassed by a wire fence. The sand flats immediately downstream of the canyon are within the West of Ardara/Maas Road SAC and proposed NHA (00197), which could be enlarged slightly to encompass the Pollnapaste karst site.



Canyon upstream from caves.



Dry cave entrances.



Wet cave entrance.







McClure et al. 2019. Geological Survey Ireland.