

GALWAY - COUNTY GEOLOGICAL SITE REPORT

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| NAME OF SITE | Cleggan Head |
| Other names used for site | |
| IGH THEME | IGH5 Precambrian |
| TOWNLAND(S) | Cleggan |
| NEAREST TOWN/VILLAGE | Cleggan |
| SIX INCH MAP NUMBER | 9 |
| ITM CO-ORDINATES | 459400E 760250N (centre of site) |
| 1:50,000 O.S. SHEET NO. 37 | GSI BEDROCK 1:100,000 SHEET NO. 10 |

Outline Site Description

A coastal headland with rocks naturally exposed around the coast and on the clifftops.

Geological System/Age and Primary Rock Type

The Cleggan Boulder Bed was originally a glacio-marine sequence within the Dalradian succession of Connemara, and is a diamictite or a mixtite, where pebbles, cobbles and occasionally boulders are embedded in a massive matrix of finer grained metamorphosed sediment.

Main Geological or Geomorphological Interest

The Cleggan Boulder Bed is an important stratigraphical marker horizon across the Dalradian of Connemara, and it supports correlations to other Dalradian sequences in Donegal and across into Scotland. It represents a glacio-marine sediment where floating ice on the shallow sea melted and dropped larger entrained pebbles and boulders into the finer grained sands and muds on the sea floor. In this way a mixed deposit was created which when metamorphosed becomes quite variable. The glaciation is dated to around 650 million years ago.

The Cleggan Boulder Bed is best exposed, and the least deformed example in Connemara, at Cleggan Head – the type locality. It is exposed on the southern side of the headland. The formation grades upward into the Bennabeola Quartzite Formation on the northern half of the headland. There are additional arches and coastal erosion features on the northern side and on the flanks of the bay.

Site Importance – County Geological Site

Cleggan Head is an important representative site for part of the Dalradian succession in Connemara, and should be recognised as a County Geological Site.

Management/promotion issues

Cleggan Head is regularly visited by University geological groups with the agreement of the landowners, also with rental farm accommodation available on-site beside Cleggan House. It is a specialised interest area that is probably not suitable for general promotion, even with landowner agreement, but maintaining access for geological student training is very desirable.



Exposures of the Cleggan Boulder Bed with larger cobbles.



Left: Exposures of the Cleggan Boulder Bed with larger cobbles.



Right: Exposures of the Cleggan Boulder Bed with a large cobble and weathered pits.



Left: Exposures of the Cleggan Boulder Bed with larger cobbles.



Right: Exposures of the Cleggan Boulder Bed are scattered on the cliff top.

