NORTH 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 NUMBER 1 GIS Code ND023 Cró Nimhe The Poisoned Glen, *Gleann Nimhe*, originally known as the 'Heavenly Glen' IGH7 Quaternary, IGH11 Igneous intrusions Dunlewy Near, Dunlewy Far, Staghall Mountain West, Drumnalifferny Mountain Gaoth Dobhair (Gweedore) 42, 43 594000E 917442N (centre of valley) GSI Bedrock 1:100,000 Sheet No. 1

Outline Site Description

The Poisoned Glen valley is a deep, 3 km-long glacial valley in the Derryveagh Mountains, one of the most spectacular glacial valleys in the country. The site extent includes a number of hanging valleys (*e.g.* Ballaghgecha Gap) along each side of the Poisoned Glen, which were formed by feeder glaciers into the main valley during the last Ice Age.

Geological System/Age and Primary Rock Type

The valley covers a large area underlain by the Main Donegal Granite, the largest of the granite plutons that comprise the c. 400 Ma Caledonian Donegal Granite batholith. The valley itself and the glacial features within it date from the last Ice Age.

Main Geological or Geomorphological Interest

The Poisoned Glen is a spectacular example of a glaciated U-shaped valley, with oversteepened cliff sides and a flat floor. The Poisoned Glen is straight, steep-sided, and rocky, just over 3 kilometres long, 700m wide and up to 400m deep.

There are a number of excellent components within the valley which are discrete examples of glacial erosion, including large scale features such as corries, arêtes and hanging valleys, as well as a small scale features such as roches moutonneés, whalebacks and chattermarks.

The head of the valley and the area of the Ballaghgecha Gap host a number of recessional moraines, as well as particularly fine lateral moraines along the eastern side of the valley.

The northern end of the valley, leading up to Dunlewy Church, is a traverse across the northern margin of the Main Donegal Granite. The granite is characterized by the presence of rafts of older Thorr granite and xenoliths of country rock as well as pegmatite and aplite veins. The Main Donegal Granite has been interpreted to have been emplaced along an active shear zone and most of the rocks near the contact zone carry a steep foliation. At the contact, the granite comprises a series of thin sheets.

The entirety of the valley area is strewn with huge granite erratics, some of which are of Barnesmore Granite, proving that ice flow during glacial maximum over County Donegal was generally from south to north.

Site Importance – County Geological Site; recommended for Geological NHA

The valley itself is a spectacular example of a glacial valley containing fine examples of glacial features throughout. The northern end of the valley is an excellent traverse across the northern margin of the Main Donegal Granite. The site merits consideration as an NHA.

Management/promotion issues

Much of the site is within the Cloghernagore Bog and Glenveagh National Park SAC, SPA and proposed NHA (002047), as well as the National Park. This is a popular walking route. Few signboards have been erected and much more information could be provided to describe the host rock geology and to illustrate the glacial processes that led to formation of the valley.



The Poisoned Glen and its related hanging valleys, viewed from the upper slopes of Errigal.



The Ballaghgecha Gap, one of the hanging valleys adjoining the Poisoned Glen. See also the erratic along the side of the valley.



Exposures of the Main Donegal Granite.which have been moulded to form 'whalebacks', smoothed outcrops polished by glacier ice, strewn with erratics.



The Poisoned Glen, viewed from near Dunlewy Church.



