

MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Derrynadivva (Interglacial)
Other names used for site	
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Derrynadivva
NEAREST TOWN/VILLAGE	Castlebar
SIX INCH MAP NUMBER	69
ITM CO-ORDINATES	512790E 795260N
1:50,000 O.S. SHEET NO. 31	GSI BEDROCK 1:100,000 SHEET NOS. 6, 11
GIS Code MO043	

Outline Site Description

This site includes a stream section along which peat deposits dating from a temperate, interglacial stage are exposed.

Geological System/Age and Primary Rock Type

The deposits include coarse gravels, organic silts, and wood peat. The peat sediments are assigned a Late Gortian Interglacial (Middle Pleistocene) age, and are similar to the 'Gortian' type locality at Boleyneendorrish River, near Gort, Co. Galway.

Main Geological or Geomorphological Interest

At this locality, partial sequences of organic sediments (peat) from the closing stages of the Gortian Interglacial temperate stage are preserved along a ~80m long stream bank section in a small tributary of the Clydagh River. The organic sediments are found below and within glacial till sediments. Pollen and macrofossil analysis of organic sediments at the site are assigned to the Gortian Interglacial temperate stage. The pollen and macrofossil records include pine, fir, oak, birch, alder, willow, juniper and rhododendron. An abundance of charcoal in the sediments indicates that fire affected the vegetation throughout the middle part of this temperate stage. This site is very important, as it provides evidence of rapid climate change, climate deterioration, and the onset of a glaciation (cold period) that affected Europe. Interglacial sediments from the Gortian temperate stage are recorded at only eleven sites throughout Ireland. This site is most important as it provides a picture of late Gortian vegetational history and provides an insight into the palaeoenvironment of upland Ireland during the Gortian. Whilst it is difficult to provide a date for these important organic sediments, the biostratigraphy studies indicate that Gortian Interglacial sequences appear to belong to the Middle Pleistocene. The Gortian Interglacial is believed to be the equivalent of the Hoxnian Stage of Britain and the Holsteinian of Europe.

Site Importance – County Geological Site; recommended for Geological NHA

The site is important as it provides a picture of late Gortian vegetational history and provides an insight into the palaeoenvironment of upland Ireland during the Gortian. This site requires certain designation as a geological NHA.

Management/promotion issues

Potential threats to this important site include drainage works, infilling of land, dumping and the alteration of watercourses proximal to the site. Because the features that render this site important are relatively difficult to access and not easily observable, this site is not recommended for public promotion.



Stream section at Derrynadivva, looking north. Stream flowing from left (west) to right (east).



Glacial deposits (grey) exposed along the stream bank at Derrynadivva.



Stream (tributary of Clydagh River) to north (right) of the roadway. Looking west towards Knockcappaghlaghaun.

