

NORTH DONEGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Dunfanaghy
Other names used for site	
IGH THEME	IGH5 Precambrian
TOWNLAND(S)	Dunfanaghy
NEAREST TOWN/VILLAGE	Dunfanaghy
SIX INCH MAP NUMBER	15
ITM CO-ORDINATES	601748E 937477N
1:50,000 O.S. SHEET NUMBER 2	GSI 1:100,000 Bedrock Sheet No. 1
GIS Code ND034	

Outline Site Description

The site comprises several large outcrops along the shore of the estuary at Dunfanaghy, on either side of the small harbour in the centre of the town.

Geological System/Age and Primary Rock Type

The rocks are part of the Precambrian Dalradian Appin Group. Pelites of the Sessiagh-Clonmass Formation are here thrust over quartzites of the Ards Quartzite Formation.

Main Geological or Geomorphological Interest

A series of five major ductile tectonic slides or thrust faults are a key feature of the Dalradian geology of north Donegal. They are part of the regional D2 deformation attributed to subduction on the margin of the Iapetus Ocean during the early-Ordovician Grampian orogeny. Thrusting in a northwestwards direction along these slides created a series of four thrust nappes, which are blocks of crust separated by thrust faults, stacked one upon another. The slide exposed at Dunfanaghy is the Dunfanaghy–Bregahy Head Slide, considered to be a segment of the Ardsbeg Slide.

West of the small harbour at Dunfanaghy a low, wave-cut platform extends around the headland. The slide is exposed mid-way along the platform at the base of the overlying boulder clay cliff where thinly bedded, cleaved pelites overlie quartzites. Thin veins of white quartz cut the schist at its contact with quartzite; thicker quartz veins are a feature of the quartzite north of the contact zone. East of the harbour, a prominent outcrop of cream-coloured quartzite stands off from the shore, separated by a gap of several metres from the shore where pelites form the bedrock. The trace of the slide runs through the gap but is not exposed. Quartz veining is again a feature of the quartzite.

Site Importance – County Geological Site

This is an exposure of one of the five principal slides along which thrusting has led to the development of a series of stacked thrust nappes in the Dalradian rocks of north Donegal. While it is not the best exposure of a slide in the region it is one of the most accessible.

Management/promotion issues

The site is immediately adjacent the harbour at Dunfanaghy and there is ample scope for a signboard or information panel on the public land in the vicinity.



Pelites of Sessiagh-Clonmass Formation (top left) thrust over Ards Quartzite Formation quartzite, west of Dunfanaghy harbour.



Surface of quartzite below and north of slide, west of Dunfanaghy harbour. View to north.



Outcrops east of harbour, quartzite on north (left) and pelites to south. Trace of slide runs through gap between them. View toward southeast.

