

## MAYO - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Belderg Harbour</b>
Other names used for site	Belderrig, Belderg Pier
<b>IGH THEME</b>	<b>IGH5 Precambrian, IGH11 Igneous Intrusions</b>
<b>TOWNLAND(S)</b>	<b>Beldergmore, Beldergbeg</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Ballycastle</b>
<b>SIX INCH MAP NUMBER</b>	<b>6a</b>
<b>ITM CO-ORDINATES</b>	<b>498950E 841350N (centre of feature)</b>
<b>1:50,000 O.S. SHEET NO. 23</b>	<b>GS1 BEDROCK 1:100,000 SHEET NO. 6</b>
<b>GIS Code MO009</b>	

### Outline Site Description

A section of coastline on the east side of a small bay, with low cliffs of glacial drift overlying folded bedrock. The mouth of the Belderg River lies just east of the nearby fishing pier.

### Geological System/Age and Primary Rock Type

Thick bedded schists (metamorphic quartz-rich sandstone) of the Broadhaven Formation, which were deposited during Neoproterozoic times, around 700 million years ago. These rocks are part of the Dalradian Supergroup of Ireland and Scotland, a metasedimentary succession deposited on the eastern margin of the ancient continent of Laurentia. Caledonian metadolerite intrusions are also present at the site.

### Main Geological or Geomorphological Interest

Bedrock is exposed for over 500m along the east side of Belderg Harbour (and further along the coast north-east of the harbour). The site demonstrates excellent coastal exposures of curvilinear (dome-shaped) folding in the thickly bedded metamorphic schist. Metadolerite (dolerite, an igneous rock similar to basalt, that has been metamorphosed) intrusions are also present at the site. These rocks were emplaced into the Dalradian schists as dykes (near to sub-vertical intrusions that cut across pre-existing rocks). The exposed bedrock at Belderg Pier was moulded and striated by ice that moved northwest onto the continental shelf. This bedrock surface is overlain by layers of glaciomarine mud, sand, and cobble gravel that can be traced discontinuously for almost 2 km eastwards along the coast, as far as the Port headland.

### Site Importance – County Geological Site; recommended for Geological NHA

This site is of national importance as it is among one of the best locations showing structural folding in the Dalradian of County Mayo, and possibly on the whole island, and therefore is recommended for geological NHA designation. The site is not situated within a designated SAC. The site is adjacent to the significant Mesolithic/Neolithic settlement site at Belderg, situated immediately above the low cliff shoreline on peat covered slopes.

### Management/promotion issues

This coastal site is not considered to be under threat of any development, or significant coastal erosion. The significance of the complex folding could be included in any future promotion/information initiatives relating to the nearby Mesolithic archaeological site.



Folded psammites above the high-tide mark, looking NW across the harbour.



Site viewed from the fishing pier, looking east across the harbour. Drift layers slope down to bedrock.



White-coloured quartzite band interbedded with psammitic schist



Pelitic schists at the site.



Folded strata exposed in low coastal cliffs.



Curvilinear folds along the shoreline.



