

CLARE - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE

Ballycar South

Other names used for site

TOWNLAND(S)

Ballycar South

NEAREST TOWN

Limerick

SIX INCH MAP NUMBER

Clare 53

NATIONAL GRID REFERENCE

156450 164100 = R56450 64100

1:50,000 O.S. SHEET NUMBER

58

1/2 inch Sheet No.

17

Outline Site Description

Agricultural grassland.

Geological System/Age and Primary Rock Type

Silurian (Wenlock) diverse shallow marine shelly fauna within conglomeratic Ballycar Member of the Cratloes Formation.

Main Geological or Geomorphological Interest

Ballycar South is an important site as the rocks here, which are presently not exposed at the surface, have yielded a very diverse assemblage of brachiopods (more than 200 different species have been identified), corals, gastropods, trilobites and bryozoans of Silurian age. These rocks were deposited by a debris flow (the rapid downslope movement of debris, in this case sand and pebbles, which became unstable and moved downslope under its own weight). Tectonic movements are thought to have been the triggering factor to this rapid flow (Weir 1975). The debris was transported from a shallow sea floor setting into a deeper marine basin, taking with it and preserving much of the inhabitants of the environment at the time.

The shelly fauna at this site are critical in the interpretation of the palaeogeography of the region during the Silurian. Although presently no rock is exposed the site has potential for further investigation as the nature of this type of deposit means that it could yield very new and different species. Such debris flows of this age are rare in Ireland but Ballycar is the best studied and has the richest fauna.

Site Importance

The site is of National importance and is proposed for NHA designation under the IGH 2 Precambrian to Devonian Palaeontology theme and the IGH 4 Cambrian-Silurian Stratigraphy theme of the GSI's IGH Programme.

Management/promotion issues

The only obvious threat is the southerly extension of a large working quarry in the slate of the Cratloes Formation to the northwest, working into the higher ground of the Cratloe Hills ridge crest. Casual enquiry of one of the quarry plant operators indicated they would not be working in that direction. However, it requires verification as the quarry has significantly expanded towards Ballycar South during the last 10 years. Another potential threat is that of domestic building. The road up to Ballycar out of Limerick is a ribbon development of dwellings, which may become an issue.



View from roadside knoll about 100m north of the site, looking southward at the eastern end of the sub-surface rock ridge.

[illegible]