

SLIGO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Inishcrone
Other names used for site	
TOWNLAND(S)	Carrowhubbuck
NEAREST TOWN	Inishcrone
SIX INCH MAP NUMBER	16
NATIONAL GRID REFERENCE	128600 330500 = G 286 305
1:50,000 O.S. SHEET NUMBER	24 1/2 inch Sheet No. 7

Outline Site Description

Foreshore rock exposures.

Geological System/Age and Primary Rock Type

Tertiary igneous intrusions and some contact or thermal metamorphism of host limestones.

Main Geological or Geomorphological Interest

A good series of Tertiary dykes occur on the foreshore north of Inishcrone. These dykes formed approximately 58 million years ago when Europe and North America split apart to produce what is now the North Atlantic Ocean. Hot magma rose up along fractures and cracks that formed in the limestone as the North Atlantic opened up. The magma cooled and hardened as vertical sheets or dykes of [dolerite](#) baking the adjacent limestone as it cooled. Bands of white marble formed as a result of this contact metamorphism as did some skarn mineral deposits (calcium-rich ore deposits). This site is also the type area for the mineral Killalaite ($\text{Ca}_3\text{Si}_2\text{O}_7 \cdot 0.5\text{H}_2\text{O}$), produced by contact (heat) metamorphism of limestones by the igneous dykes intruded as hot magma.

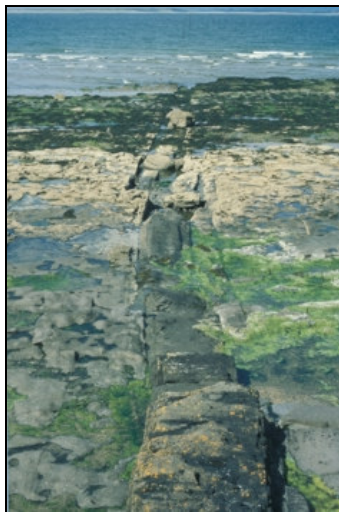
The site also shows interesting tectonic features and displacements of rock by glacial activity. This is a unique site showing new evidence for subglacial erosion and shearing, such as shunting of large slabs of Carboniferous limestone with brecciation and detachment along major bedding planes and northward displacement of a Tertiary dyke. This rock fracture is due to high porewater pressures under an ice sheet and not mechanical crushing as is normally envisaged for subglacial rock fracture.

Site Importance

The site is of National importance and is to be proposed for NHA designation under the IGH11 Igneous Intrusion theme of the GSI's IGH Programme, and also probably under IGH7 Quaternary.

Management/promotion issues

As foreshore exposures there are few issues to be concerned with in relation to this site, although specific cliff sections at the back of the foreshore may need protection.



Tertiary dykes at
Inishcrone



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