

CORK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Cape Clear
Other names used for site	NE coast of Cape Clear, Foilcoagh Bay, <i>Cléire</i>
IGH THEME	IGH2 Precambrian to Devonian Palaeontology, IGH10 Devonian
TOWNLAND(S)	Lios Ó Móine, Cnocán na mBairneach, Gort na Lobhar, An tArdhort, Ceathrúna, Comalán
NEAREST TOWN/VILLAGE	North Harbour
SIX INCH MAP NUMBER	153
ITM CO-ORDINATES	496690E 522930N (Tradooncleara/Helicopter Landing Cove)
1:50,000 O.S. SHEET NUMBER	88 GSI BEDROCK 1:100,000 SHEET NO. 24
GIS CODE	CK029

Outline Site Description

Coastal outcrops on the northeast side of Cape Clear (*Cléire*).

Geological System/Age and Primary Rock Type

The bedrock is Old Red Sandstone and comprises Upper Devonian grey-green sandstone and mudstone of the Sherkin Formation, including the Foilcoagh Bay Member beds which are the lowest beds of the formation. The Foilcoagh Bay Member is dated to around 375 million years ago (mid-Frasnian) and consists of dark-grey mudstone and grey rippled cross-laminated and flat-bedded sandstone.

Main Geological or Geomorphological Interest

The Sherkin Formation consists of primarily grey and green coloured sandstone with lesser amounts of grey-green and purple mudstone. The strata visible along the coast of Cape Clear, Sherkin Island, Baltimore Harbour, and throughout Roaringwater Bay are noticeably vertically oriented. This orientation is due to folding that occurred during the Variscan Orogeny (mountain building episode), around 300-290 million years ago at the end of the Carboniferous. The mudstone was slightly metamorphosed to form slate. Slate was quarried on Sherkin Island in the nineteenth century. The slate quarries on the south coast of Sherkin Island are visible to passengers on the Baltimore ferry.

The Old Red Sandstone succession of the Munster Basin is interpreted as being formed by alluvial sediments deposited in river channels and flooded overbank areas. Sedimentological and palynological analysis of the Foilcoagh Bay Member has provided evidence of marine influence in the form of marine microfossils and organic matter identified in the mudstones. The marine influence is understood to reflect high-energy marine inundations into a coastal lagoon or lake. These beds represent the first evidence of marine conditions in the Munster Basin.

Site Importance – County Geological Site

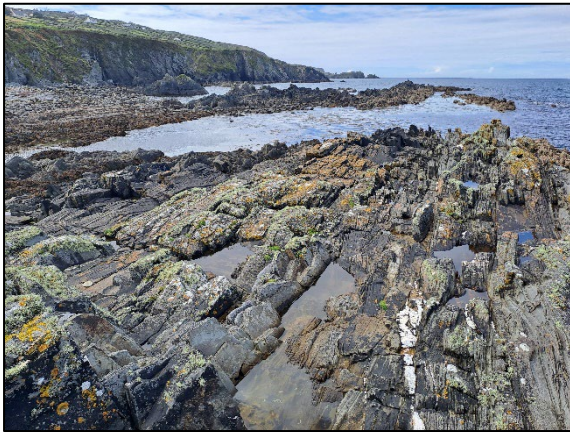
This is an important site because the Foilcoagh Bay Member of the Sherkin Formation on the northeast coast of the island represents the first incursion of marine conditions into the Munster Basin and confirms the position of this part of southwest Cork as being on the edge of the Old Red Sandstone continent during Middle and Upper Devonian times.

Management/promotion issues

This is a remote coastal section situated on Ireland's most southerly island. Access to the coastline is possible via the breen to the Helicopter landing cover, and to Foilcoagh Bay. Care should be exercised along any coastal section in an exposed and high-energy coastal setting. The features of interest are not apparent in the field and the site is not deemed suitable for promotion as a geological heritage visitor site. The site is of significance to the geoscience research community.



Foilcoagh Bay Member beds on northeast coast. View east of 'slipway' at Distillery (old fish station).



Foilcoagh Bay Member beds at Tradooncleara (Helicopter landing cove) – looking west.



Foilcoagh Bay Member beds viewed from Distillery (old fish farm station) looking east.



Cliffs at Foilcoagh Bay viewed from ferry.

