

MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Rockfleet Bay
Other names used for site	Rockfleet, Carrickahowley Castle
IGH THEME	IGH8 Lower Carboniferous
TOWNLAND(S)	Rockfleet; Rossyvera
NEAREST TOWN/VILLAGE	Newport
SIX INCH MAP NUMBER	88ac
ITM CO-ORDINATES	500900E 782840N (centre of features)
1:50,000 O.S. SHEET NOS. 30, 31	GSI BEDROCK 1:100,000 SHEET NOS. 6, 10
GIS Code MO090	

Outline Site Description

The site comprises excellent exposures of gently sloping fossiliferous limestone beds on the shoreline of Rockfleet Bay.

Geological System/Age and Primary Rock Type

The rocks of the Rockfleet Limestone Formation are Early Carboniferous (Dinantian) age (c. 359 to 326 million years old).

Main Geological or Geomorphological Interest

The bedrock at the site consists of dark grey-coloured, fine-grained limestone and calcareous shale beds that slope gently southwestward into the bay. These sedimentary rocks contain fossils that suggest the marine sediments were deposited on a shallow, near-shore platform. The rocks are similar to, and have been correlated with, the Castlebar River Limestone Formation. Fossils include the coral *Syringopora*, which are clearly visible on the shoreline exposures opposite Rockfleet Cottage, trace fossils and a group of small crustaceans called *Ostracods*. Whilst most of the shoreline is bedrock (often blanketed with seaweed), salt marshes have developed in sheltered areas, on patches of relict peat and mud. The bedrock exposures along the shoreline between the high and low tide marks, and up the small stream valley by Rockfleet Castle are the best and most accessible sections of Carboniferous rocks on the Clew Bay coast.

Site Importance - County Geological Site

This County Geological Site is important as it provides an insight into geological history of the Mayo region during the Carboniferous. The site was identified as being of regional importance in a Report on Areas of Scientific Interest in County Mayo by Goodwille, published in 1979.

Management/promotion issues

A small road runs immediately alongside the site, allowing easy access to the shoreline just below the road. The site is suitable for promotion as a site of interesting geology and history, owing to its proximity to the N59 route and nearby Greenway Cycle route. No immediate threats are evident, although any development along the shore side of the road, or in the vicinity of Rockfleet Castle (National Monument No. 454), could threaten bedrock exposures. There should not be any damage to, or removal of in-situ fossils. An information board would be valuable in communicating information about the fossils and rocks observable, along with the historical and cultural history associated with the site. The site is currently located within the Clew Bay Complex SAC/pNHA (1482).



SW dipping limestone strata – looking south from Rockfleet Castle.



SW dipping limestones by the roadside seawall.



Rockfleet Bay and Castle, looking SW to Clew Bay.



Conglomerate beds with large rounded cobble visible on right.



Trace fossils in calcareous beds near Rockfleet cottage.



SW dipping limestone strata. Looking west towards pier.



Fossil coral *Syringopora* at Rockfleet Bay.

