

WEXFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Carnsore Point
Other names used for site	Carnsore
IGH THEME	IGH11 Igneous Intrusions
TOWNLAND(S)	Nethertown, St. Vogue's, Churchtown, Carne (Carna)
NEAREST TOWN/VILLAGE	Lady's Island
SIX INCH MAP NUMBER	48
NATIONAL GRID REFERENCE	712150E 603750N
1:50,000 O.S. SHEET NUMBER	77
	GSi BEDROCK 1:100,000 SHEET NO. 23

Outline Site Description

A low-lying coastal landscape at the most southeastern part of Ireland.

Geological System/Age and Primary Rock Type

Late Caledonian granite emplaced about 430 million years ago during the Silurian Period. The granite is pink coloured and contains large crystals (phenocrysts) of 1-2cm, set in a finer matrix.

Main Geological or Geomorphological Interest

The Carnsore Granite was intruded across a shear zone about 430 million years ago, when shearing along the southern margin of the Rosslare Complex had ceased. The granite is undeformed, unlike the older Saltees Granite which is foliated. The Carnsore Granite is of particular interest in terms of geothermal heat production. The granite exhibits the second highest heat production rate (HPR) of the Irish granites with a HPR value of $6.42 \mu\text{W}/\text{m}^3$. (Mourne Granite has the highest HPR value of $6.83 \mu\text{W}/\text{m}^3$).

The Ordovician Tuskar Group sediments and volcanic rocks (occurring to the west at Tuskar Rock) were completely metamorphosed by the emplacement of the Carnsore Granite during Silurian times.

The site also includes important, mainly subtidal (some intertidal) reef comprising boulders fields and gently sloping bedrock extending offshore, from south of Carnsore Point to Greenore Point. Sections of mudflats and sandflats are exposed at low tide along the eastern coast, northwards from Carnsore Point to Rosslare Harbour. These habitats host a variety of community sub-tidal and intertidal fauna.

Site Importance – County Geological Site

This is an important County Geological Site, as it is the type location for the Carnsore Granite, and is the most southeastern tip of Ireland. (Not visible at the surface, the Carnsore Granite extends west beneath Lady's Lake and east to Tuskar Rock). The site is designated a SAC (Carnsore Point SAC 002269) and is of particular significance for the presence for reefs, mudflats and sandflats, all of which are habitats listed on Annex I of the E.U. Habitats Directive. This site is also partly within Lady's Island Lake pNHA (00704).

Management/promotion issues

Granite exposures occur along the shoreline at Carnsore and Carna. Large granite boulders occur along the southeast shore of Lady's Island Lake. The site is of interest to visiting geology student groups. Any promotion infrastructure (e.g. signboards) would be ideally situated at Lady's Island, as the site itself is exposed, access by foot is via small lanes, and there are no established parking areas nearby.



Granite exposures and wind turbines at Carnsore Point, Ireland's most southeastern point.*



Granite boulders on the southern shore at Lady's Island Lake just west of Carnsore Point.



Granite walls at Carnsore. Wind turbine in background.

* Image: Office of Public Works Coast of Ireland Aerial Oblique Imagery Survey 2003. Permission to reproduce acknowledged.

