

KERRY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Samphire Island
Other names used for site	Great Samphire Island, <i>An tOileán Mór</i> , Fenit Port
IGH THEME	IGH3 Carboniferous to Pliocene Palaeontology, IGH8 Lower Carboniferous
TOWNLAND(S)	Fenit Without
NEAREST TOWN/VILLAGE	Fenit
SIX INCH MAP NUMBER	28
ITM CO-ORDINATES	472800E 614700N (outcrop at west side of island)
1:50,000 O.S. SHEET NUMBER	71
GSi BEDROCK 1:100,000 SHEET NO.	20
GIS CODE	KY075

Outline Site Description

This site includes a coastal bedrock outcrop on a low limestone island, which hosts Fenit Port and is connected to the mainland by a causeway.

Geological System/Age and Primary Rock Type

The rocks exposed on Samphire Island are fossil-rich Waulsortian limestones, from the Lower Carboniferous (Mississippian, 359-323 million years old).

Main Geological or Geomorphological Interest

Samphire Island itself is relatively prominent limestone knoll protruding from Tralee Bay, which comprises part of a Waulsortian mudmound, with typical fossil fauna.

The best, most accessible and safest exposures are along the western edge of the island, just west of Fenit Port. The fossils are plentiful and are preserved in fine grained micritic limestone. The fossils are dominated by brachiopods, corals, gastropods and molluscs, and Samphire Island is also the type-site for the *Eusthenoceras bailyi* (de Koninck, 1882) cephalopod holotype.

The Waulsortian limestone at Samphire Island is karstified, with well-developed epikarst in the uppermost beds. Given that the adjacent site at Barrow includes a number of isolated, steep-sided 'towers' of limestone bedrock that are interpreted as relict, glacially-modified tower karst, it is quite possible that Samphire Island is another example of this type of feature.

Site Importance – County Geological Site

This County Geological Site is an important representative site exhibiting accessible, fresh exposures of fossil-rich limestones, as well as being important because of the presence of the rare cephalopod *Eusthenoceras bailyi* (de Koninck, 1882).

Management/promotion issues

All of the site comprises a rocky shoreline, and the only current risk to the site is the effects of sea erosion, although expansion of Fenit Port could be a future threat. The site is easily accessible, with the rock outcrops being along the southern end of the causeway entrance to Fenit Port, and walkable from the car park along the causeway. The rock outcrops themselves are quite steep and uneven, and slippery at all times, so care is needed if searching for fossils. Much of the site is within the Tralee Bay and Magharees Peninsula, West to Cloghane SPA (site code 002070). The entire site merits promotion, preferably as part of a north Kerry coastal geological heritage trail.



The limestone outcrops (right) along the western end of Samphire Island, just below the bronze St. Brendan the Navigator sculpture.



Tabulate coral fossil on Samphire Island.



Cephalopod and mollusc fossils.



Well-developed epikarst at the summit of Samphire Island.

