

CORK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Cod's Head		
Other names used for site			
IGH THEME	IGH11 Igneous Intrusions, IGH10 Devonian		
TOWNLAND(S)	Reentrusk		
NEAREST TOWN/VILLAGE	Allihies		
SIX INCH MAP NUMBER	114		
ITM CO-ORDINATES	454500E 547900N		
1:50,000 O.S. SHEET NUMBER	84	GSI BEDROCK 1:100,000 SHEET NO.	24
GIS CODE	CK035		

Outline Site Description

Large outcrops on headland and cliffs overlooking the ocean.

Geological System/Age and Primary Rock Type

The bedrock comprises sandstone and siltstone of the Upper Devonian Caha Mountain and Gun Point Formations. These rocks are intruded by an alkali basalt dyke, considered to be late-Carboniferous in age, emplaced just before or during the Variscan (Hercynian) orogeny around 300 million years ago.

Main Geological or Geomorphological Interest

Igneous rocks are not a major component of the bedrock geology of the Munster Basin, typically consisting of (i) thin bands of extrusive tuffs found over a wide area and (ii) dykes and other small intrusive bodies of very limited extent. On the Beara peninsula, the intrusive rocks are generally sub-divided into a northern province, cropping out along the northern coast of the peninsula, and a southern province, found along the southern coast and on Bere Island. They are intruded into Upper Devonian and Lower Carboniferous rocks and are typically alkaline in composition. Their occurrence has been linked to the development of the Munster Basin, the magma resulting from melting of the mantle under conditions of crustal extension along pre-existing zones of weakness (faults) in the Caledonide crust.

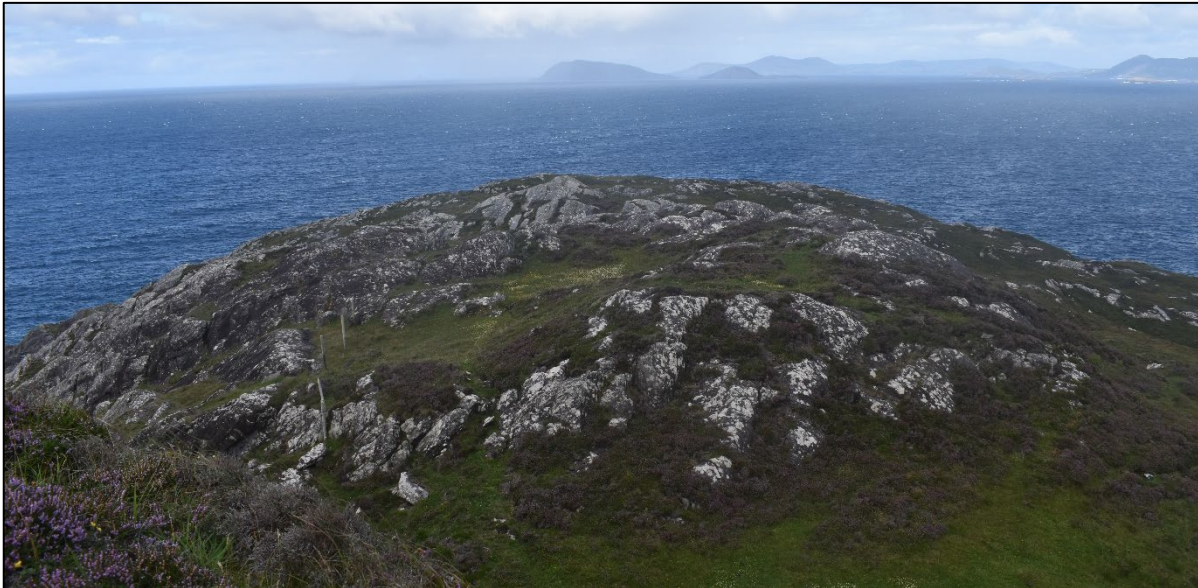
The intrusions of the northern province are generally alkali basalt in composition and are emplaced exclusively into Devonian rocks. At Cod's Head, the dyke rocks are folded and cleaved, indicating a pre-deformation age. Here and there, bright green epidote-rich pods provide a stark contrast with the sandstone hosts. The Caha Mountain Formation sandstone and siltstone, lying to the north of the intrusion, display large-scale cross bedding and include intraformational breccias. South of the intrusion, thick massive sandstone beds of the Gun Point Formation display large-scale boudinage structures.

Site Importance – County Geological Site.

This site provides an excellent exposure of alkali basalt intrusion of the northern igneous province on the Beara peninsula, part of the suite of alkaline igneous intrusive rocks emplaced into the sedimentary succession during development of the Munster Basin. There are also excellent exposures of rocks of both the Caha Mountain Formation and the Gun Point Formation.

Management/promotion issues

The site is within the Beara Peninsula SPA. It is located on commonage on a somewhat remote headland, well-known to geologists and students but infrequently visited by others. It is likely to remain of interest mainly to geologists and thus not warrant further promotion.



General view northwestwards over Cod's Head, with the Iveragh Peninsula in the background.



Outcrop of relatively massive alkali basalt at Cod's Head.



Lens of greenish alkali basalt (under hammer) within fine-grained sediment.



Bright green pod within alkali basalt, mainly composed of epidote and quartz.



Thick, boudinaged sandstone bed of Gun Point Formation on south side of Cod's Head.

