

CLARE - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Poulsallagh
Other names used for site	Cancapple, Poulsallach
TOWNLAND(S)	Ballyryan
NEAREST TOWN	Lisdoonvarna
SIX INCH MAP NUMBER	4
NATIONAL GRID REFERENCE	108610 201800 = M0861 0180
1:50,000 O.S. SHEET NUMBER	51 1/2 inch Sheet No. 14

Outline Site Description

Well-developed range of karren forms in the inter-tidal zone of the limestone coast.

Geological System/Age and Primary Rock Type

The karren features have developed within the Asbian (Lower Carboniferous) Aillwee Member limestones.

Main Geological or Geomorphological Interest

At Poulsallagh Bay and the coastal section immediately to the north of it, a compact area of foreshore exhibits a sequence of biochemically induced karren landforms (mainly hollows 1-50cm deep and 5-300cm wide) that is the equal of any site in the world. Karren formation at this locality is a result of respired carbon dioxide dissolving the limestone as well as the boring and burrowing activities of marine life and algae. Direct dissolution of the limestone by seawater is of negligible significance. The karren forms become increasingly well developed towards low water mark, reflecting the increase in life. Eroded glacial deposits have protected some of the limestone from solutional erosion. On the south side of Poulsallagh Bay, where part of this protective layer has been eroded away, smooth, karren-free limestones are exposed and still preserve glacial striae. The northern part of the site includes remnants of cave passages, some with quartz rich sediments derived from across Galway Bay. These exotic clasts are evidence of an earlier glacial till removed from the Burren area by later ice movement. A karst spring, presumed to drain much of southern Slieve Elva, is located in the inter-tidal zone south of Poulsallagh. It is an overflow outlet for the mainsprings located offshore (at a depth of -12m). The area provides an ideal teaching environment and fuses biological, geological and geomorphological processes.

Site Importance

The site is of International importance and is proposed for NHA designation under the IGH 1 Karst theme of the GSI's IGH Programme.

Management/promotion issues

The area extends to 6ha and includes the inter-tidal zone but also extends up to 130m inland to include moraine and some areas of subaerial karren. The boundary is not drawn precisely, reflecting a lack of distinctive features such as walls, and because the entire site is already within an SAC, and therefore boundary definition is not so critical.



Left: Poulsallagh Bay at low tide showing the karren zones. Right: Echinoid pits and pools near low tide level. Photos: D. Drew.



