

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Cappacasheen Epikarst
Other names used for site	
IGH THEME	IGH1 Karst
TOWNLAND(S)	Cappacasheen, Killinny West
NEAREST TOWN/VILLAGE	Kinvara
SIX INCH MAP NUMBER	122
ITM CO-ORDINATES	537860E 704525N (centre of area)
1:50,000 O.S. SHEET No. 52	GSI BEDROCK 1:100,000 SHEET NO. 14

Outline Site Description

An isolated area of limestone pavement about 100 m by 200 m, with a depression and springs.

Geological System/Age and Primary Rock Type

The site is in Carboniferous Limestone but the well displayed feature of epikarst is a post glacial (Holocene) phenomenon.

Main Geological or Geomorphological Interest

The Cappacasheen Epikarst site is located close to the contact between the extensive lowland pavements and the areas overlain by thicker tills, south-southwest of Kinvara. It is an enclosed area of springs which emerge from the bedding and flow from south to north to sink underground again in the bedding. Flow persists in all but the driest conditions and at moderate to high discharge a shallow sheet of water flows over almost the entire area. The two beds of limestone (2 m thick) between the surface of the surrounding limestone pavement and the bedding plane that carries the flow are highly karstified with joints solutionally opened to widths of up to 250 mm and extensive karren features on the surface exposures. In contrast the bed above which flow takes place is almost wholly unmodified by solution, the joints remaining as hairline cracks and the rock surface being smooth. The site is an excellent example of a very superficial groundwater flow system in the shallow epikarst layer of the limestone - effectively a perched groundwater system.

Site Importance – County Geological Site; recommended for Geological NHA

This is one of numerous sites within the Gort-Kinvara lowlands which make up a complex of international importance. The site is recommended to NPWS for designation as a geological NHA, comprising one of 15 critical sites within the Gort-Kinvara lowland karst which is one of the best studied lowland karst areas of the World.

Management/promotion issues

The site was a historical water source in this area, where surface drainage is very rare, as the springs are reliable. There is a walled path from the road to the site which is effectively contained as a window where the epikarstic beds have been eroded out (perhaps by glaciation) leaving the groundwater to cross the resulting depression. It could be made into an interesting geological site for the general public and tourists if the landowner was agreeable. However, it has a secluded charm that would rapidly diminish if it was heavily promoted.



Panoramic view of Cappacasheen Epikarst basal bed in the depression.



Panoramic view of Cappacasheen Epikarst, looking northeast.



Panoramic view of Cappacasheen Epikarst, looking southwest.

