# **GALWAY CITY - COUNTY GEOLOGICAL SITE REPORT**

NAME OF SITE Other names used for site IGH THEME TOWNLAND(S) NEAREST TOWN/VILLAGE SIX INCH MAP NUMBER ITM CO-ORDINATES 1:50,000 O.S. SHEET NUMBER 46 GISCODE Merlin Park Cave Newry Hole IGH1 Karst Merlin Park Galway 94 534565E 725255N GSI BEDROCK 1:100,000 SHEET NO. 14 GC005

## **Outline Site Description**

Large conical enclosed depression with a narrow cave mouth at its floor.

### Geological System/Age and Primary Rock Type

The bedrock comprises pale grey Lower Carboniferous (Mississippian) limestone of the Burren Formation. The subterranean karst nature of the bedrock probably originated during Cenozoic times (since 66 million years ago) or possibly even earlier. The enclosed depression is probably be a post-glacial feature, forming in the past 11,000 years.

## Main Geological or Geomorphological Interest

Merlin Park Cave is situated at the floor of an approximately 10m deep, conical enclosed depression, at the eastern end of Merlin Park woods. An enclosed depression is a karst landform that forms from the collapse of surface layers of limestone into a large subterranean cavity or network of cavities. The steep-sided enclosed depression is fenced off as a safety measure in this public woodland amenity.

The cave entrance is a small rift at the northern side of the 'floor' of the depression. In a description in the Irish Speleology Journal Vol. 2, No. 2, David Drew writes '(a) short excavated crawl leads to a short single chamber some 15m in diameter and floored with large breakdown blocks. White straw stalactites abound and there are deep pools on the floor... Reference to the cave on the map suggests that it was once open and has only recently become blocked with litter and soil'. When visited for this survey, the cave mouth was accessible, albeit with a discarded bicycle blocking the entrance.

#### Site Importance – County Geological Site

This County Geological Site is important because it is a fine example of an enclosed depression, with a cave within, in Galway City. The features are indicative of the karst limestone characteristics of the eastern end of the city.

#### Management/promotion issues

The enclosed depression-cave location is fenced off for safety reasons, owing to the steep slope adjacent to the woodland path. Caves are potentially dangerous and fragile environments that should only be visited in the company of experienced cavers, and therefore public access should be discouraged. The woodlands occupy an area of uneven karst limestone bedrock, which is strewn with limestone boulders and Galway Granite glacial erratics. Any promotion of the biodiversity in the woodland should include information on the sites geological and karst characteristics. A second enclosed depression occurs c. 150m to the east, in a small wooded area alongside the R338 Coast Road to Oranmore. The proximity of this depression to a public road may explain why it is subject to fly-tipping and rubbish disposal.



Fence around enclosed depression.



Cave mouth (arrow) on floor of enclosed depression.



Karstified limestone block along woodland path.



Epikarst limestone outcrop in woods.



Cave mouth, with discarded bicycle.



Evidence of fly-tipping in eastern depression near R338 Coast Road.

