

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

<b>NAME OF SITE</b>	<b>Beagh Sink – Pollduagh System</b>
Other names used for site	Devil's Punchbowl, Cannahowna Cave
<b>IGH THEME</b>	<b>IGH1 Karst</b>
<b>TOWNLAND(S)</b>	<b>Cloonnahaha, Prospect, Laghtyshaughnessy</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Gort</b>
<b>SIX INCH MAP NUMBER</b>	<b>113</b>
<b>ITM CO-ORDINATES</b>	<b>545482E 700234N (Punch Bowl)</b>
<b>1:50,000 O.S. SHEET No. 52</b>	<b>GSI BEDROCK 1: 100,000 SHEET NO. 14</b>

### **Outline Site Description**

The site comprises a sequence of linked karstic features along the course of the Beagh River between its initial sink and its final resurgence from Pollduagh cave as the Gort River.

### **Geological System/Age and Primary Rock Type**

The sinks, risings and collapse features are all within Carboniferous Limestone.

### **Main Geological or Geomorphological Interest**

The site comprises a sequence of genetically linked karstic features along the course of the Beagh River between its initial sink and its final resurgence from Pollduagh cave as the Gort River. The initial sink of the Beagh River is one of the largest in Ireland, ending in a 15 m high blind valley. The channel upstream of the sink may have been re-excavated after infilling by till, but the lowest part of the valley is cut into cherty limestones. A dry channel extends from the southern side of the sink into the large conical enclosed depression known as the Punchbowl. The Punchbowl was the original sink for the Beagh River but has since been modified by subsidence into the newer river cave beneath. A short distance to the west the river re-appears, flows in a gorge-like channel for a few hundred metres and then sinks again at Blackwater, to re-emerge 1 km further west from Pollduagh Cave. Between Blackwater and Pollduagh are two collapse dolines, each 13 m deep, into the river course: the Ladle, a choked collapse and the Churn, a vertical joint controlled shaft. The whole assemblage is a suite of landforms developed as an ancient underground river system and is destroyed by infilling with glacial deposits and by collapse from the surface. Pollduagh (Cannahowna) Cave is the only segment of active subterranean cave passageway accessible to non-divers in the area. The main cave is developed in the bedding, guided by a roof joint. The extensive shelving on the side walls and the solutional fretwork and hollows suggest a phreatic (sub-water table) origin for the cave. The cave descends to 30 m below the entrance level before rising again to the sink at Blackwater. It is thus likely to be a fragment of an ancient up-and down- looping passageway developed under a high head and destroyed by cavern collapse up- and downstream of the present cave. The entrance to the cave has been greatly modified by block collapse. Downstream of the entrance the small gorge with many large blocks in the river represents relatively a recently collapsed cavern. Some 50 m downstream on the left (west) bank is the entrance to a flood rising- a phreatic tunnel some 1.5 m in diameter.

### **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 16 critical sites within the Gort-Kinvara lowland karst which is one of the best studied lowland karst areas of the World.

### **Management/promotion issues**

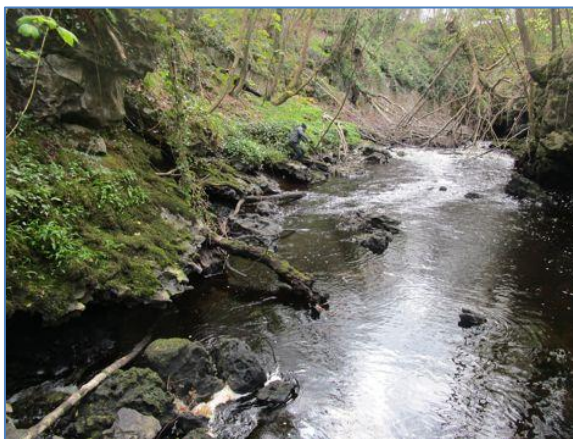
The Beagh River Sink and Devil's Punchbowl are local tourist attractions and there is walking access via a stile to visit them. Car parking is best found beside the turn off on the old Gort to Ennis road. Pollduagh was also a historical visitor attraction with easy access to the cave mouth on a short path from the bridge over the cave entrance.



The Beagh Sink is a trap point for large trees.



The Punchbowl is a collapse feature, intersecting the water from the Beagh Sink.



The rising of the Blackwater River.



The Blackwater River sink.



Pollduagh (Cannahowna) Cave entrance.



The Ladle is a deep water filled pot, behind the wall, and heavily wooded.



