# DUN LAOGHAIRE - RATHDOWN – COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE Carrickgollogan

Other names used for site 'Katty Gallagher', and variants thereof

IGH THEME IGH 4 Cambrian-Silurian

TOWNLAND(S) Shankill NEAREST TOWN/VILLAGE Shankill

SIX INCH MAP NUMBER 26

ITM CO-ORDINATES 723055E 720550N

1:50,000 O.S. SHEET NUMBER 50, 56 GSI BEDROCK 1:100,000 SHEET NO: 16

#### **Outline Site Description**

A small but prominent hill.

## Geological System/Age and Primary Rock Type

The small hill of Carrickgollogan is composed of Cambrian quartzites of the same age as the Sugarloaf and Bray Head. The surrounding hill is composed of younger Ordovician rocks.

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

The small hill of Carrickgollogan is a geological anomaly in that the Cambrian quartzite rocks of the hill are much older than the Ordovician slate rocks on which they rest. Structurally they are upside down. The small hill is only a remnant of a very large recumbent (folded back on itself) fold structure that existed, most of it having been eroded away. The cross-sectional sketch below illustrates this. Geologically this hill is an inlier (older rocks surrounded entirely by younger rocks) but specifically because of its faulted origin it is termed a klippe. The site includes the hill itself and sufficient surrounding forest to show exposure of the slates on which the quartzite sits. There are good 360 degree views of the surrounding geology and landscape.

**Site Importance - County Geological Site; may be recommended for Geological NHA** It is an unusual example of a klippe in a national context and may be recommended for geological NHA status, but certainly deserves to be a CGS.

### Management/promotion issues

The hill is on Coillte land and open for public access. A good variety of trails managed through the Dublin Mountains Partnership pass close by. A trailside sign about wildlife in the area, right at the foot of the small hill could be radically enhanced by addition of a panel explaining the geological structure with a simple cross-sectional diagram and possibly a map.

Cambrian
Thrust Plane

Cole 1921

Ordovician

A very simple representation of how Carrickgollogan was emplaced by a major thrust fault, bringing Cambrian rocks up from the east onto younger Ordovician rocks, with subsequent erosion leaving the klippe of Carrickgollogan.



Carrickgollogan viewed from a trail from the Carrickgollogan woods car park.



Carrickgollogan – at the foot of the small hill of Cambrian quartzite rocks from the trail. An additional sign explaining the geological importance would enhance the visitor experience.

