GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Ballydotia**
Other names used for site	
IGH THEME	**IGH1 Karst**
TOWNLAND(S)	**Ballydotia, Ballynahallia**
NEAREST TOWN/VILLAGE	**Moycullen**
SIX INCH MAP NUMBER	**68**
ITM CO-ORDINATES	**521370E 753350N (centre of outcrops)**
1:50,000 O.S. SHEET No. 45	**GSI BEDROCK 1:100,000 SHEET NO. 11**

Outline Site Description
This site comprises an area of limestone bedrock outcrop close to the western shore of Lough Corrib, within a wider region of bedrock at or near surface. The site also includes a small quarry which allows a three-dimensional view of the limestone of the locality.

Geological System/Age and Primary Rock Type
The site is an area of outcrop of pure bedded limestones, which is Lower Carboniferous (359-323 Ma) in age. The karst pavement features themselves have been formed in the present climate, since the last Ice Age, in the last 14,000 years or so.

Main Geological or Geomorphological Interest
A limestone pavement is a natural karst landform consisting of a flat, incised surface of exposed limestone that resembles an artificial pavement. Many of these landforms have developed distinctive surface patterning resembling paving blocks. Similar landforms in other parts of the world are known as alvars.

For limestone pavement to occur, the bedrock has to have been stripped of all its overlying sediment by a passing glacier during the last Ice Age, which scrapes away any overburden and exposes horizontally bedded limestone. The resultant flat, bare limestone surface is slightly soluble in water and particularly in acid rain, so corrosive drainage along joints and cracks in the limestone can produce slabs called clints isolated by deep fissures called grykes. Where the grykes are fairly straight and the clints are uniform in size, the resemblance to man-made paving stones is striking.

The pavement at Ballydotia has a scattering of granite boulders atop, which have been carried eastwards from the Connemara escarpment to Ballydotia. Very large boulder erratics of limestone also occur here.

Site Importance – County Geological Site
The site is an excellent example of limestone pavement, and the fact that the locality is strewn with erratic granite boulders adds to the geological interest.

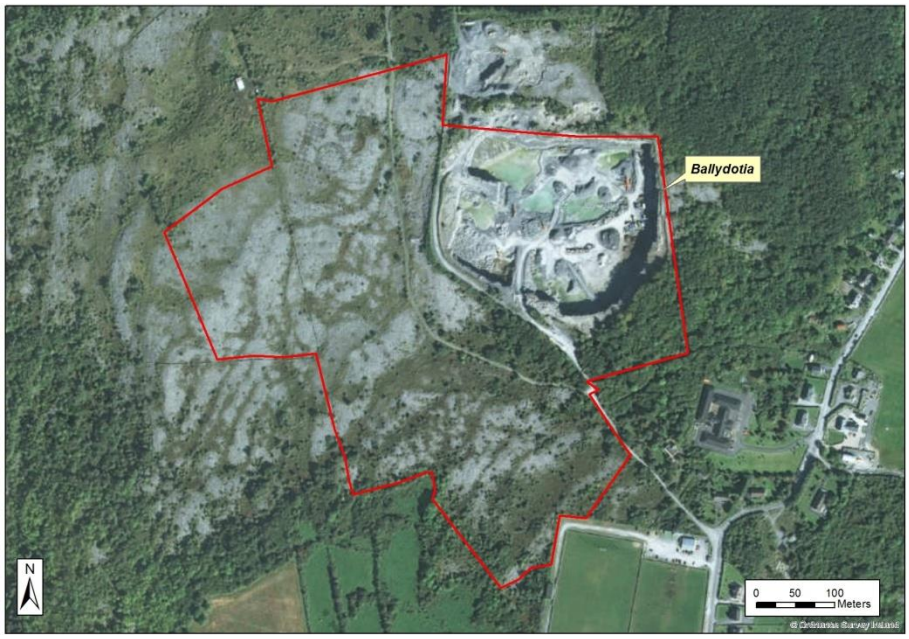
Management/promotion issues
The site is openly accessible at the verge of a public road and the features are easily visible. Some of the boulders and rock slabs have been removed for decorative purposes in gardens and at other amenities previously, and this should be discouraged. A signboard at the roadside highlighting the origin and significance of the features might prove worthwhile.

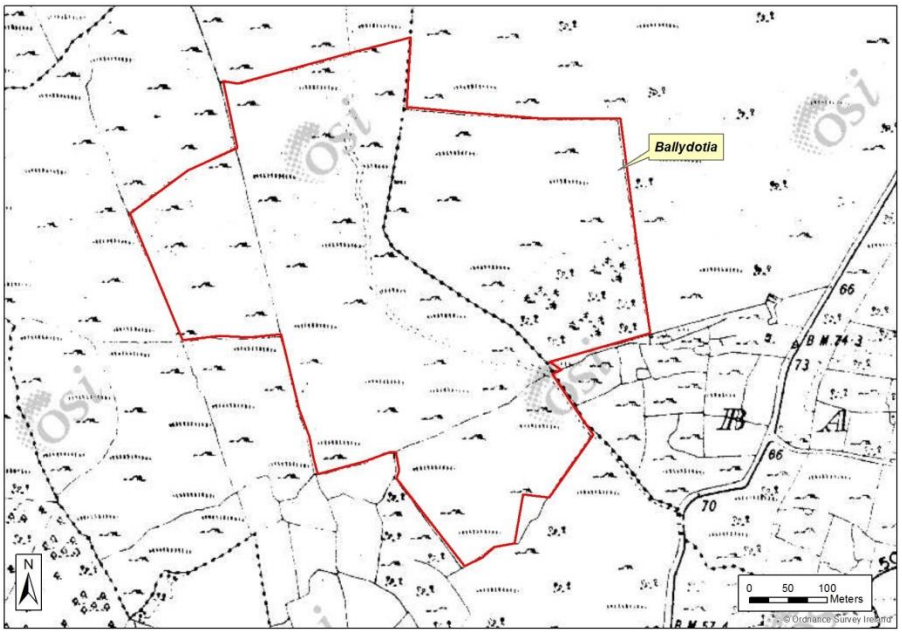
View westwards across the limestone pavement at Ballydotia.

Erratic boulders of Galway Granite on the limestone pavement at Ballydotia.

The backwall of the quarry at Ballynahallia, where groundwater seeps can be seen.

Deep grykes in the southern area of the pavement.





Meehan et al. 2019. Geological Survey Ireland.