

MONAGHAN - COUNTY GEOLOGICAL SITE REPORT

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| NAME OF SITE | Scotshouse-Redhills Cross-cutting Ribbed Moraines |
| Other names used for site | |
| IGH THEME | IGH7 Quaternary |
| TOWNLAND(S) | Too many to list ... this portion of the field covers over 75 individual townlands, across an area of 70 km ² |
| NEAREST TOWN/VILLAGE | Scotshouse, Redhills (just inside Cavan) |
| SIX INCH MAP NUMBER | Monaghan 16, 21 |
| ITM CO-ORDINATES | 644600E 818000N (centre of features) |
| 1:50,000 O.S. SHEET NUMBER | 28a GSI BEDROCK 1:100,000 SHEET NO. 8/9 |

Outline Site Description

These ribbed moraines form part of the largest field of ribbed moraines found anywhere in the world, and which also includes the Rockcorry-Cootehill ribbed moraines. The entire field includes over 3,000 individual features and this subset, covering an area of 10 by 7 kilometres, contains approximately 50 individual features. It includes the only mapped area of cross-cutting ribbed moraines in the world.

Geological System/Age and Primary Rock Type

The ribbed moraines were formed on bedrock of Lower Carboniferous shales and limestones and Ordovician metasediments and volcanic rocks. The moraines themselves are Quaternary in age, having been deposited at the base of the ice sheet as it moved in a southwesterly direction during the early phase of the last glaciation and subsequently in a southeasterly direction during the maximum period of the Ice Age.

Main Geological or Geomorphological Interest

These ribbed moraines each contain many superimposed drumlins on their crests and the area has traditionally been known as the northern portion of the 'Drumlin Belt'. Owing to their size the ribbed moraines can only be seen using digital elevation modelling (DEM) and satellite imagery.

Nowhere else in the world have ribbed moraines been noted where they record two separate ice flows. Here, the major orientation of the features is northwest to southeast, but there are also forms adjoined to these that are oriented northeast to southwest. The features therefore record flow from two different directions. In plan view they appear as irregular, wavy, snake-like forms.

The features are generally 1–2km long and 500m or so wide, with individual superimposed drumlins being c. 400m long and 100m–200m wide. The ribbed moraines attain a maximum height of about 30m and are usually 20m or so in height.

Site Importance – County Geological Site; recommended for Geological NHA

These are the only mapped cross-cutting ribbed moraine features anywhere in the world and therefore form one of the most important geological terrains in Ireland.

Management/promotion issues

This is an excellent site in terms of macro-scale Quaternary subglacial geomorphology. The features are too large to undertake any conservation efforts on their part but the landscape itself is noteworthy and should be promoted as unique amongst landscape elements within both the Monaghan County Development Plan, and in Landscape Characterisation.



A view across some of the cross cutting ribbed moraines at Coolnacarte, west of Scotshouse.



Cross cutting ribbed moraines at Corraskea, north of Scotshouse, looking southeast.



