

# CAVAN - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Rockcorry-Cootehill Ribbed Moraines</b>
Other names used for site	
<b>IGH THEME</b>	<b>IGH7 Quaternary</b>
<b>TOWNLAND(S)</b>	<b>Too many to list ... this portion of the field covers over two hundred individual townlands, across an area of 180 km<sup>2</sup></b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Cootehill, Rockcorry (just inside Monaghan)</b>
<b>SIX INCH MAP NUMBER</b>	<b>Cavan 16, 17, 18</b>
<b>ITM CO-ORDINATES</b>	<b>666000E 891000N (centre of features)</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>28a      GSI BEDROCK 1:100,000 SHEET NO.    8/9</b>

## Outline Site Description

This field of ribbed moraines forms part of the largest field of ribbed moraines found anywhere in the world. The entire field includes over 3,000 glacial features, but this subset covers an area of 18 by 10 kilometres, containing approximately 160 individual features, and includes the largest individual ribbed moraines found anywhere in the world.

## Geological System/Age and Primary Rock Type

The ribbed moraines were formed on bedrock of metasediments and volcanic rocks of either Silurian or Ordovician age. The features themselves are Quaternary in age, having been deposited at the base of the ice sheet moving in a southeasterly direction during the maximum period of the last 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 middle portion of the 'Drumlin Belt'. Owing to their size, the ribbed moraines can only be seen using digital elevation modelling (DEM) and satellite imagery.

This ribbed moraine field is not only unusual in its huge size and the large size of individual features around Rockcorry and Cootehill, but because they are interspersed with thick deposits of peat, the features are quite strikingly defined, forming the perfect 'ribbed' topography.

The moraines are generally 5–8km long and 800m or so wide, with individual superimposed drumlins being c. 600m long and 100–200m wide. They attain a maximum height of about 50m but are typically 30m or so high. The largest individual feature is 10 km long, 1 km wide and up to 45m high, meaning it comprises approx. 400 million tonnes of sediment.

## Site Importance – County Geological Site; recommended for Geological NHA

These are the largest individual ribbed moraine features anywhere in the world, and therefore one of the most important geological terrains in Ireland. Study of these features will lend insights into how ribbed moraines form, which has always been difficult to ascertain as they form under ice sheets and can not be seen in modern analogue conditions.

## 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 the Cavan County Development Plan, and in Landscape Characterisation.



A view across some of the Rockcorry-Cootehill ribbed moraines at Cargaghbane, east of Cootehill.



Ribbed moraines near Latton, County Monaghan, looking south.





