

## **LOUTH - COUNTY GEOLOGICAL SITE REPORT**

<b>NAME OF SITE</b>	<b>Ardee-Newtown Bedform Field</b>
Other names used for site	
<b>IGH THEME</b>	<b>IGH7 Quaternary</b>
<b>TOWNLAND(S)</b>	<b>Screedoge, Hurlstown, Bigisland, Smarmore</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Ardee</b>
<b>SIX INCH MAP NUMBER</b>	<b>17, 20</b>
<b>ITM CO-ORDINATE</b>	<b>695000E 788000N (centre of features)</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>36 GSI BEDROCK 1:100,000 SHEET NO. 13</b>

### **Outline Site Description**

This field of subglacial bedforms, which are features formed under the bed of an ice sheet, includes drumlins, crag-and-tails and ribbed moraines, and forms part of a small, discrete field of these features south and southwest of Ardee town. The field covers an area of 8 by 6 kilometres, and includes approx. 50 features. Some of the drumlins are superimposed on ribbed moraine features.

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

The bedforms are formed, in the majority of cases, on Lower Carboniferous limestone, but the higher crag-and-tails have formed on Silurian metasediments and volcanic rocks. The features themselves are Quaternary in age, having been deposited at the base of the ice sheet moving eastwards during the maximum period of the last Ice Age.

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

The drumlin field forms the southeastern edge of the extensive 'Drumlin Belt' of north central Ireland, and was historically thought to include a wide, bounding end-moraine feature at the edge of the drumlin field. Research in the late 1990s and early 2000s, using analysis of Digital Elevation Models of the area, have shown that this is not the case, and that the 'wide band' of what was previously-considered end moraine actually includes a number of individual ribbed moraine and drumlin features.

The field is also unusual in a county context in that, in such a small area, a huge variety and range of sizes of subglacial bedform features are found. These range from small, individual drumlins around 200m in length and 30m in height, to high, composite crag-and-tails up to 3 km long and 80m high.

### **Site Importance – County Geological Site**

This is the southeastern edge of the traditionally-termed 'Drumlin Belt' and is important in its internal diversity and form with respect to subglacial bedform features.

### **Management/promotion issues**

This is an excellent site in terms of macro-scale Quaternary subglacial geomorphology. The features as a whole are too large to define as a single site with a specific boundary, as would be required for NHA status. However the landscape itself is particularly noteworthy and should be mentioned as unique in landscape elements within the Louth County Development Plan, and in Landscape Characterisation. A colour leaflet on 'The Drumlins of County Louth' could be produced.



A view of one of the drumlins just south of Ardee.



The complex bedform landscape just south of Ardee.



