WESTMEATH - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**South Westmeath hummocks**
Other names used for site	The Derries
IGH THEME	**IGH7 Quaternary**
TOWNLAND(S)	**Montrath, Garryduff, Cappanrush**
NEAREST TOWN/VILLAGE	**Kilbeggan**
SIX INCH MAP NUMBER	**38, 39**
ITM CO-ORDINATES	**640775E 733680N (centre of feature)**
1:50,000 O.S. SHEET NUMBER	**48 GSI BEDROCK 1:100,000 SHEET NO. 15**

Outline Site Description
The South Westmeath hummocks comprises a large accumulation of sands and gravels deposited at the edge of the westward-retreating ice margin at the end of the last Ice Age, in south Westmeath and approximately 7 kilometres east-southeast of Kilbeggan.

Geological System/Age and Primary Rock Type
The South Westmeath hummocks are formed on bedrock of Lower Carboniferous limestone, but the features comprising the hummocks themselves are Quaternary in age, deposited at the end of the last Ice Age, about 14,000 years ago.

Main Geological or Geomorphological Interest
The sands and gravels within the feature are comprised chiefly of limestone of Lower Carboniferous age.

The hummocks include a distinctive hummocky topography just west of the extensive peat bogs at Derrycoffey, Derryarkin and Derrygreenagh (along the county boundary with Offaly). Striking about this 'South Westmeath hummocks' locality is that it is also the eastern extreme of and meeting point for the four major, extensive esker system that traverse the Irish Midlands west to east (those systems being the Castlesampson-Athlone-Mount Temple Esker System, the Split Hill and Long Hill Esker Complex, the Ballinasloe-Split Hills-Clonmacnoise-Clara Esker System and the Ballyduff Esker-Rahugh Ridge Esker System).

The hummocks are poorly exposed today and there has been little quarrying into the area historically, so the exact genetic constituents of the hummock features remain a mystery. The topography reflects a potential wide range of depositional settings; the hummocks may be part of an outwash sandur (plain), a series of outwash fans, or deltas, or may have elements of all three as components of the locality. Only with detailed logging of exposures in the future will the true nature of the depositional history of this huge fan shaped area at the 'end of the eskers' be revealed.

The hummocky complex is consequently important in unravelling the sequence of terrestrial deglaciation.

Site Importance – County Geological Site
The feature is a good example of the haphazard, hummocky topography which forms at the retreating margin of a melting ice sheet, and is especially imported as it is the meeting point of the four great esker systems mentioned above.

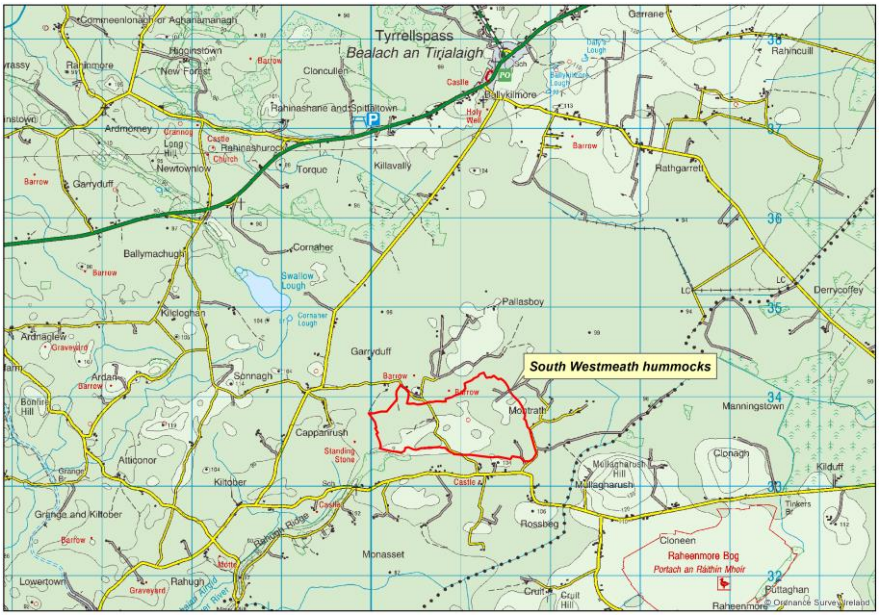
Management/promotion issues
This system comprises a fine landform sequence and should be listed as a County Geological Site. The hummocks are readily visible from the third class roads at Garryduff and Montrath. If planning permission is granted to extractive pits in the locality in the future, Geological Survey Ireland should be notified and a programme of sediment exposure logging instigated as a condition of planning grant.

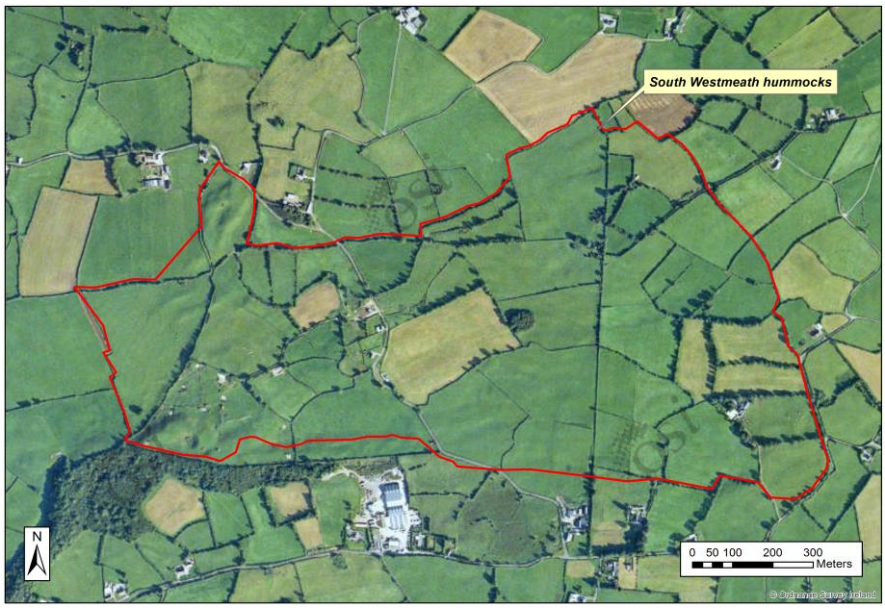
Road climbing up onto an anabranching esker at Garryduff, at the northearn end of the hummocks.

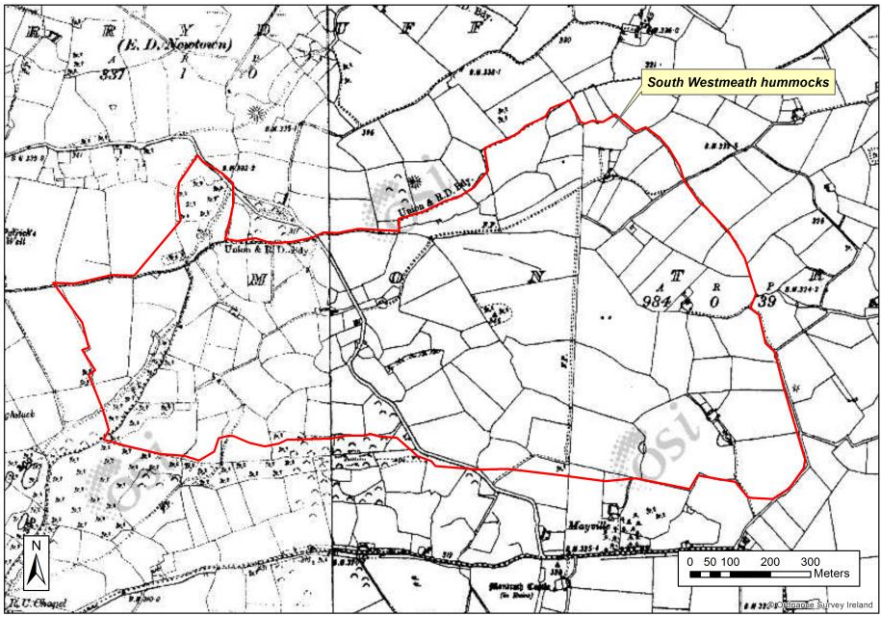
Looking westwards in Montrath Townland along a haphazard, hummocky, esker-like topography.

Poor exposure in disused gravel pit at Montrath.

Lowlying hummocky topography in Montrath.







Meehan *et al*. 2019. Geological Survey Ireland.