

WESTMEATH - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Mount Temple Esker
Other names used for site	Moate Esker, Ballynagarbry Esker, Mount Temple (Ballynagarbry) Esker
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Carn Park, Clonrelick, Ardyduffy, Creevebeg, Aghanashanamore, Carnfyan, Mount Temple, Labaun, Tullybane, Dunegan, Shurock, Killachonna, Ballynagarbry, Toorfelim, Cappantack, Cloghbane, Bawnoges
NEAREST TOWN/VILLAGE	Moate, Mount Temple
SIX INCH MAP NUMBER	30, 31
ITM CO-ORDINATES	616435E 741210N (centre of feature, in Dunegan)
1:50,000 O.S. SHEET NUMBER	47, 48 GSI BEDROCK 1:100,000 SHEET NO. 12, 15

Outline Site Description

The Mount Temple Esker includes an exceptionally large accumulation of sands and gravels deposited under the ice sheet as the ice withdrew westwards across south Westmeath at the end of the last Ice Age.

The esker forms part of the larger Castlesampson-Athlone-Mount Temple Esker System, which extends from Roscommon through Westmeath and into County Offaly, for a distance of just under 40 kilometres.

Geological System/Age and Primary Rock Type

The Mount Temple Esker is formed almost exclusively on Lower Carboniferous limestone, although the esker does cross a locality of Old Red Sandstone bedrock at Killachonna just northwest of Moate. The esker itself is Quaternary in age, having been deposited either? Or? under the westward-retreating ice sheet in deglaciation, approximately 14,000 years ago.

Main Geological or Geomorphological Interest

The esker ridge is a striking feature, standing proud of the flat landscape of either bedrock (where the Old Red Sandstone occurs) or till (boulder clay), upon which it was deposited. In a number of places the esker has been surrounded by post-glacial peat deposits in the Holocene, since the Ice Age. This is especially striking north of the town of Moate. At and around Mount Temple village, the esker grades from a singular ridge of coarse gravels to a more haphazard, hummocky topography.

The esker feature is important in that it records faithfully the ice movement across this area of Westmeath during the final phase of deglaciation. Wide belts of associated sands and gravels at the western extent of the feature, and flanking the esker ridge itself, have long been studied and are part of associated ice marginal fan and delta systems. The sands and gravels within the esker are comprised chiefly of limestone clasts.

Site Importance – County Geological Site; recommended for Geological NHA

The feature is a haphazardly arranged, high, striking example of a dry sand and gravel ridge, and stands proud of the surrounding landscape. This is part of one of the longest esker systems in the country and is a superb example of a relict subglacial conduit system. The Ballynagarbry Esker pNHA straddles the esker (sitecode 001713), as does a portion of the Carn Park Bog SAC (sitecode 002336), and these areas, as well as many adjacent, are proposed here as the site.

Management/promotion issues

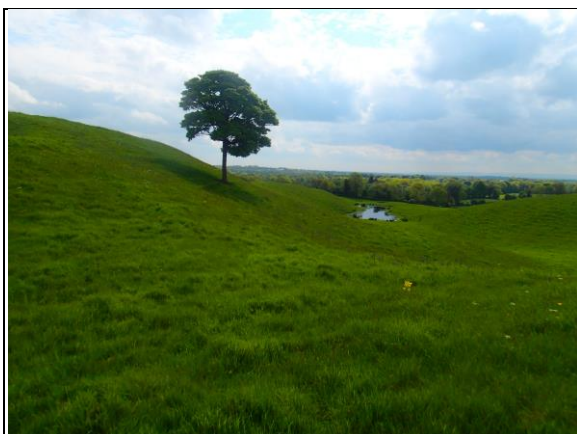
This system comprises a well-defined landform sequence and should be listed as a County Geological Site and Geological NHA. Roadside signboards at Mount Temple village and at Ballynagarbry, where the feature can be well seen, might help in promoting the feature.



A long, high segment of the Mount Temple Esker at Carn Park, along the western extent of the designated portion of the feature.



Wildflowers on the steep-sided esker ridge approaching Ballynagarbry.



A hummocky portion of the esker, at Ballynagarbry.



The road rising up on part of the esker at Dunegan.

