OFFALY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE Other names used for site	Clonmacnoise Esker The Ballinasloe-Split Hills-Clonmacnoise-Clara Esker System, The Clara Esker, The Pilgrim's Road, The Long Road, The <i>Eiscir Riada</i> , Lough Nanag Esker
IGH THEME	IGH7 Quaternary
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TOWNLAND(S)	Clorhane, Creevagh, Clonmacnoise, Clonascra,
	Ballyduff, Clonaderg, Doon Demesne, Esker,
	Togher, Corracullin, Cooldorragh, Cappanalosset,
	Cornafurrish and Corrabeg, Castletown,
	Ballybruncullin, Bohernagrisha, Erry, Kilnabinnia,
	Kilmucklin, Ashfield, Tara, Cartron, Durrow
	Demesne, Ballybought, Balleek, Ballycallaghan
NEAREST TOWN/VILLAGE	Clara, Ballycumber
SIX INCH MAP NUMBER	5, 6, 7, 8, 9
ITM CO-ORDINATES	600870E 730650N (centre of esker at Clonmacnoise)
1:50,000 O.S. SHEET NUMBER	47, 48 GSI BEDROCK 1:100,000 SHEET NO. 15

Outline Site Description

The Clonmacnoise Esker and surrounding sands and gravels includes an exceptionally large accumulation of sands and gravels deposited both under the ice sheet and at its margin as the ice withdrew westwards across Offaly at the end of the last Ice Age.

The esker forms part of the larger Ballinasloe-Split Hills-Clonmacnoise-Clara Esker System, which extends from Galway, through Offaly, and into Westmeath, and is the traditional route defined as the '*Eiscir Riada*' in ancient Irish Folklore.

Geological System/Age and Primary Rock Type

The Clonmacnoise Esker and surrounding sands and gravels are formed entirely on Lower Carboniferous limestone rocks, across the lowlands of north Offaly. The eskers themselves are Quaternary in age, having been deposited either under or at the edge of the westward-retreating ice sheet in deglaciation, approximately 14,000 years ago.

Main Geological or Geomorphological Interest

The esker ridges are striking features, standing proud of the flat landscape of till (boulder clay) upon which they were deposited. In many places the eskers have been surrounded by post-glacial alluvium or peat deposits in the Holocene, following the Ice Age. This is especially impressive along the Shannon at Clonmacnoise itself. At Clonmacnoise 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 Offaly during the final phase of deglaciation. Wide belts of associated sands and gravels east of Clonmacnoise, and east of Clara, flanking the esker beads themselves, 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 the longest esker system in the country and is a superb example of a relict subglacial conduit system. Though recommended as a County Geological Site it is of international importance and is also recommended as a Geological NHA.

Management/promotion issues

The Lough Nanag Esker and Clonfinlough Esker pNHAs straddle the esker (sitecodes 000910 and 000892 respectively), as does a portion of the Clara Bog SAC (sitecode 000572), and the entirety of these areas, as well as many adjacent, are proposed here as the site. Geological information on the esker could form some elements of the literature associated with the Clnmacnoise Monastery site.



An anabranching segment of the Clonmacnoise Esker near 'The Pinnacle', just east of Clonmacnoise.



The steep-sided esker ridge approaching Clonmacnoise.



A sinuous portion of the esker, at Clonmacnoise.



A small gravel pit into the esker complex at Cooldorragh.







A sketch of the 'Pilgrim's Road' Esker, by George Victor du Noyer of the Geological Survey of Ireland, from the mid-1800s (image reproduced from Feehan, 2013).



The 'Pilgrim's Path' Cycle Route, which traverses the Clonmacnoise Esker.



A flyer for National 'Pilgrim's Path' Day, focussed around the Clonmacnoise Esker.