

CORK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Rathmore Esker
Other names used for site	
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Knocknaloman
NEAREST TOWN/VILLAGE	Rathmore (Kerry)
SIX INCH MAP NUMBER	38
ITM CO-ORDINATES	518050E 591850N
1:50,000 O.S. SHEET NUMBER	79 GSI BEDROCK 1:100,000 SHEET NO. 21
GIS CODE	CK073

Outline Site Description

This site contains a c. 500 m long esker, partially quarried on the southern side, and otherwise covered with vegetation.

Geological System/Age and Primary Rock Type

The esker and the hummocky sand and gravel deposits at the east end of the esker are formed entirely on Mississippian (Upper Carboniferous, or Namurian) shale and sandstone bedrock. The esker itself is Quaternary in age, deposited either under or at the edge of the westward retreating ice sheet during deglaciation, approximately 14,000 years ago.

Main Geological or Geomorphological Interest

The esker just southeast of Rathmore is an example of a deglacial landform that formed as glacial ice retreated and eventually melted away towards the end of the last glaciation. The esker sands and gravels were deposited by sub-glacial rivers that they flowed in tunnels at the base of the ice sheet. The meltwaters organised the sediments into the iconic esker 'ridge' landforms that remained after the ice melted.

In the past, the significance of the esker was due to its location south of the South Ireland End Moraine (SIEM). For much of the 20th century, the SIEM was broadly accepted as representing the southernmost limit of ice during the last glaciation. Before the 1990s, it had been assumed that the glacial landforms of Ireland were broadly grouped into two provenances associated with two Pleistocene cold phases, termed the Munsterian (older) and Midlandian (younger), which were separated by the 'Southern Irish End Moraine'. In recent years, the significance of the SIEM as the southern 'ice sheet limit' has been revised and scaled back. It is currently accepted that the Irish Sea ice sheet extended much further south into the Celtic Sea during the Last Glacial Maximum, around 24,000 years ago. However, Rathmore esker remains important because it is a rare example of an esker in this part of southwest Ireland.

Site Importance – County Geological Site

The feature is a rare example of an esker in southern Ireland, and comprises a sand and gravel ridge that stands proud of the surrounding landscape. Like many eskers throughout Ireland, the crest of the ridge carries a road, which has most likely been in use as a route for a very long time. This is an important County Geological Site considering eskers are rare in County Cork, and Munster in general. It is the furthest southwest esker in the country.

Management/promotion issues

Much of the feature is on private land, but carries a minor road along the top for around 300 m. The esker is covered in vegetation, and is best viewed from the road to the north of the feature. Significant sections of the southwest portion have been quarried out. It would be fortunate if quarrying could be managed to try to preserve what is a rare feature in the southwest of Ireland.



Panoramic view of south side of the Rathmore Esker.



Quarried south side of esker, looking east towards road.



Vegetation cover on esker, viewed from road looking west.



Assorted rounded cobbles and sands exposed in an excavated esker pile.

