

## LIMERICK - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Gorteennamrock Fen</b>
Other names used for site	Gorteennamrock
<b>IGH THEME</b>	<b>IGH1 Karst, IGH16 Hydrogeology</b>
<b>TOWNLAND(S)</b>	<b>Kilbehy, Ballyvockoge, Gorteenamrock</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Askeaton</b>
<b>SIX INCH MAP NUMBER</b>	<b>20</b>
<b>ITM CO-ORDINATES</b>	<b>537800E 647925N (centre of feature)</b>
<b>1:50,000 O.S. SHEET NUMBER 64</b>	<b>GSI BEDROCK 1:100,000 SHEET NO. 17</b>
<b>GIS CODE LK016</b>	

### Outline Site Description

This site comprises a small fen in an area with abundant limestone bedrock outcrop, about 4km southeast of Askeaton.

### Geological System/Age and Primary Rock Type

The bedrock is pure, well-bedded Mississippian (Lower Carboniferous) Waulsortian limestone, but the fen feature itself is post-glacial, formed in the last 11,000 years.

### Main Geological or Geomorphological Interest

The landscape surrounding Gorteennamrock Fen is comprised of low hills formed of limestone at or just below the ground surface, but the floor of the fen is relatively flat. There is a marked limestone crag along the eastern side of the fen area, which rises to stand proud of the wetland floor. The basin is confined by slopes on the east, south and part of the west but is more open to the northwest and north. The feature reflects the interaction of the groundwater table with the land surface, and is permanently inundated with water, hosting several small, shallow, base-rich pools, as well as fen and marsh areas.

The fen dries out markedly in summer, partially owing to drainage works carried out in recent years, and the processes of groundwater entering and leaving the basin have not been studied in any detail. The high, cliffed crags of bedrock outcrop along the eastern and southern sides of the fen are particularly impressive.

The wet, ponded area in the north central portion of the feature are useful bird habitats while the cliffs offer a further range of habitats (or sub-habitats) for a range of fauna and flora. In an area of extensive land clearance and drainage, this specific fen habitat is all the more valuable. The northern end of the fen was seen to be an almost pure sward of *Cladium mariscus* (sedge), but further south, the *Cladium* is gradually replaced as the dominant species by *Phragmites communis* (reeds).

### Site Importance – County Geological Site

This fen is worthy of recognition as a County Geological Site owing to the local-scale geomorphological diversity over a relatively small area. There are few relatively intact fens left in Limerick, in a county where they were abundant and common historically, and this is one of the most impressive such features from a landscape perspective. The fen is already a pNHA and SAC (Site 001433) for biodiversity reasons.

### Management/promotion issues

The fen is in an area of relatively intensive sheep farming, with overgrazing and heavy poaching common features. However, agricultural inputs are relatively low at Gorteennamrock itself, with few intensive cattle farms present. Thus, the most obvious potential threats would be removal of scrubland on the surrounding bedrock crags, drainage of the land forming the fen, and the application of fertilisers that might alter the fen hydrochemistry.



The basin hosting Gorteennamrock Fen, viewed from the northeast.



Some of the ponded areas in the sedge-dominated area at the northern end of the fen.



The high, cliffed limestone crags at the east.



Phragmites-dominated area in the centre of the fen.

