LIMERICK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE **Ballymorrisheen Fen** Other names used for site **Ballymorrisheen Marsh IGH THEME** IGH1 Karst, IGH16 Hydrogeology TOWNLAND(S) Ardtomin, Ballybaun, Graigues, Derry, Ballymorrisheen, **Deanstown**, Ballingarrane **NEAREST TOWN/VILLAGE** Askeaton SIX INCH MAP NUMBER 20 **ITM CO-ORDINATES** 536375E 646250N (centre of Ballymorrisheen Lough) GSI BEDROCK 1:100,000 SHEET NO. 17 1:50,000 O.S. SHEET NUMBER 64 **GIS CODE LK003**

Outline Site Description

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

Geological System/Age and Primary Rock Type

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

Main Geological or Geomorphological Interest

The landscape surrounding Ballymorrisheen Fen is comprised of low hills formed of limestone at or just below the ground surface, but the floor of the fen is flat. The fen itself is a small to medium-sized wetland site characterised by a number of small lakes surrounded by fen vegetation, which is dominated by saw sedge (*Cladium mariscus*) and the common reed (*Phragmites australis*).

Ballymorrisheen Fen has a branched geometry with several separate 'fingers' extending out in to the surrounding landscape. It forms part of a wider network of small lakes and their associated fen habitats, which include Cappagh Fen just a little further southeast. The most significant geological feature is the occurrence of large cliff-like rocky limestone outcrops, which often act as a backdrop to these fen and lake habitats. The mechanisms of groundwater movement in and around the fen have not been studied in any detail.

The dominant habitats include open water, fen and reedbeds, the latter making up a major portion of the site. The reeds are mainly *Phragmites australis* while reed marsh (*Typha sp.*) comprises a smaller portion of the site. Scrub habitats make up the bulk of non-aquatic habitats, with whitethorn (*Crataegus monogyna*) the most common flora. There are less common occurrences of gorse (*Ulex europaqus*), willow (*Salix sp.*), ash (*Fraxinus excelsior*) and hazel (*Carylus avellana*).

Site Importance – County Geological Site

This fen is worthy of recognition as a County Geological Site owing to the local-scale geomorphological diversity present 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, at least from a landscape perspective. Because of its lakes and smaller pools, which vary considerably in size and depth, this area contains a wider range of habitats than the other fens nearby, *e.g.* Cappagh Fen, and thus is of greater hydrogeological interest. The fen is already a pNHA and SAC (Site 001425) for biodiversity reasons.

Management/promotion issues

The site is isolated and remote from most roads, which adds to its protection. The fen lies among a belt of relatively intensive cattle and sheep farming, with overgrazing and heavy poaching common features. Thus, the most obvious issues would be potential drainage of the land forming the fen, and fertiliser application potentially altering its hydrochemistry.



The southwestern edge of the basins hosting Ballymorrisheen Fen, viewed from the north.



A view from the centre of the fen area, across rushes and reeds, towards flanking bedrock crags.



Meehan et al., 2021. Geological Survey Ireland.