LIMERICK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Cappagh Fen**
Other names used for site	Ballyhomock Fen
IGH THEME	**IGH1 Karst, IGH16 Hydrogeology**
TOWNLAND(S)	**Ballyhomock, Ballyhibbin, Callow**
NEAREST TOWN/VILLAGE	**Rathkeale**
SIX INCH MAP NUMBER	**20**
ITM CO-ORDINATES	**537600E 646150N (centre of feature)**
1:50,000 O.S. SHEET NUMBER 64	**GSI BEDROCK 1:100,000 SHEET NO. 17**
GIS CODE LK005	

Outline Site Description
This site comprises a small fen within an area with abundant limestone bedrock outcrop, about 4km northeast of Rathkeale.

Geological System/Age and Primary Rock Type
The majority of the bedrock around the site, including at the edge of the feature, is pure, well-bedded Mississippian (Lower Carboniferous) Waulsortian limestone, but the low-lying fen locality is underlain by dark, impure, muddy limestone of the Rathkeale Formation. The fen feature itself is post-glacial, formed in the last 11,000 years.

Main Geological or Geomorphological Interest
The landscape surrounding Cappagh 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 prominent limestone crag in the centre of the fen area. The basin is confined by slopes on the east, north and part of the south but is more open to the west and southeast. 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. There are occasional erratic rocks of pure limestone around the base of the fen, some of which have begun to form mushroom stones. The crags of bedrock outcrop along the eastern side of the fen, as well that as forming the central 'island', are particularly impressive.

The two discrete lakes in the north of the fen are useful bird habitats while the central 'island' 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 fen site proper comprises extensive reed beds, largely *phragmites*, with *Cladium* closer to the edges or in drier areas. There is a clearer succession towards the edge of the fen from reed bed to freshwater marsh to wet grassland, though in recent years there is a tendency for the wet marshes to become discontinuous and confined to specific locations.

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, at least from a landscape perspective. The fen is already a pNHA and SAC (Site 001429) for biodiversity reasons.

Management/promotion issues
This is a site that can be visited easily, just by driving along the roads that traverse it. The fen lies in an area of relatively intensive sheep farming, with overgrazing and heavy poaching common features. However, agricultural inputs are relatively low, with few intensive cattle farms. Thus, the most obvious issues would be the potential drainage of the land forming the fen.

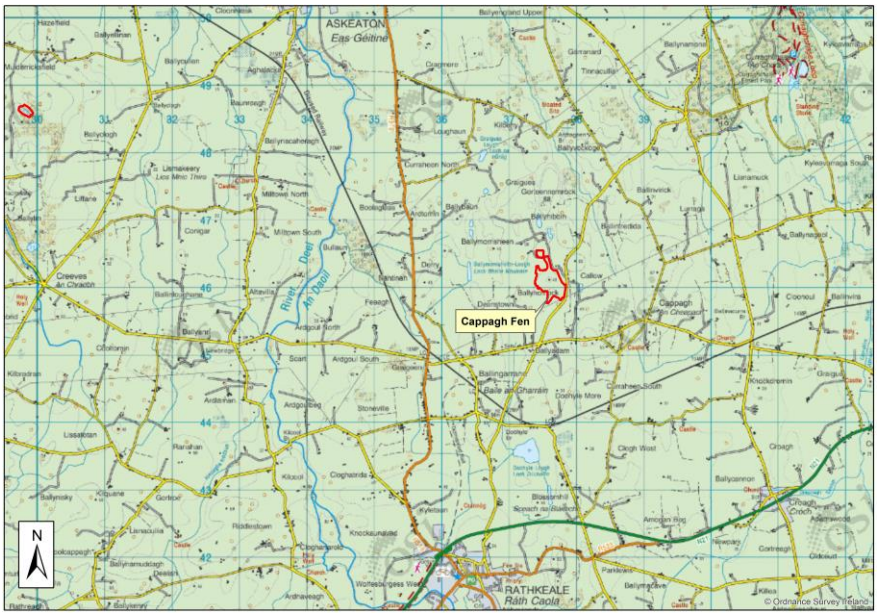
Meehan et al., 2021. Geological Survey Ireland.

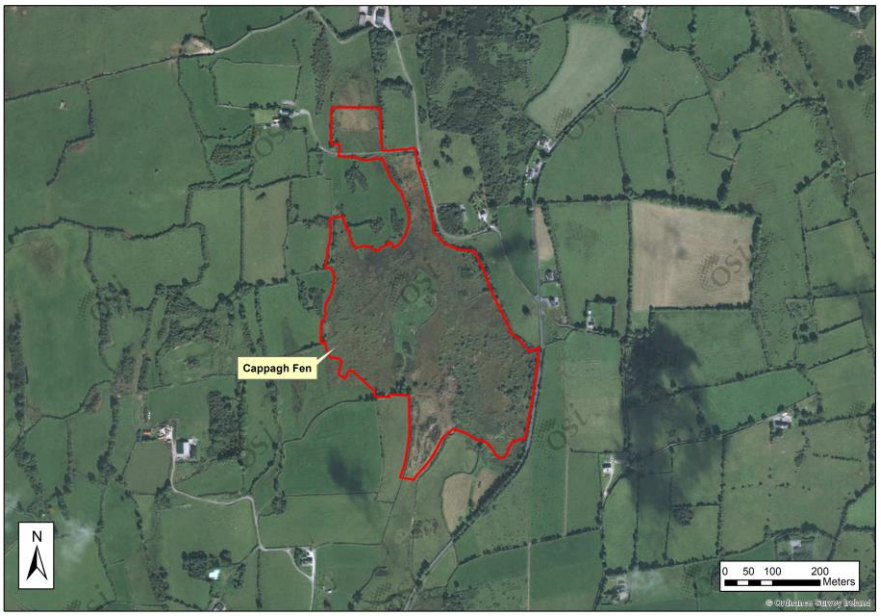
The basin hosting Cappagh Fen, viewed from the east.

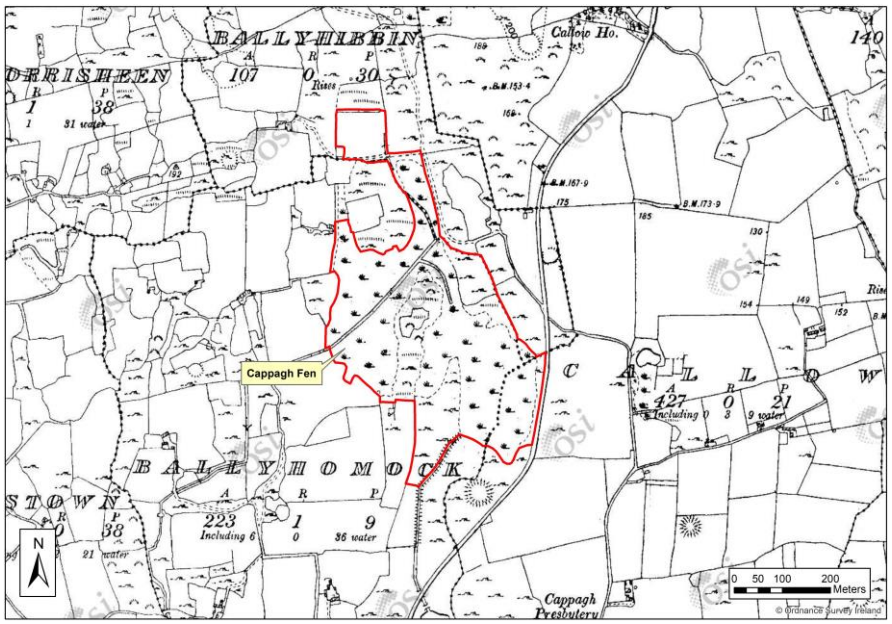
Some of the drained rush-dominated grassland at the north of the feature.

A mushroom stone, at the northern end of the fen area.

Limestone crag at the eastern end of Cappagh Fen.







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