# **OFFALY - COUNTY GEOLOGICAL SITE REPORT**

NAME OF SITE Mongan Bog

Other names used for site

IGH THEME IGH7 Quaternary, IGH16 Hydrogeology

TOWNLAND(S) Clonmacnoise, Tullaghbeg, Clonascra, Clonfinlough

NEAREST TOWN/VILLAGE Ballycumber

SIX INCH MAP NUMBER 5

ITM CO-ORDINATES 603300E 730850N (centre of bog)

1:50,000 O.S. SHEET NUMBER 47 GSI BEDROCK 1:100,000 SHEET NO. 12

#### **Outline Site Description**

Mongan Bog comprises an extensive area of peatland extending in a lowlying hollow for approximately 2 kilometres, north to south, just east of Clonmacnoise.

## Geological System/Age and Primary Rock Type

Mongan Bog is situated within an area dominated by bedrock of Lower Carboniferous limestone. The bog peat is Quaternary in age, having formed in marshy conditions as an extensive envelope of the landscape in the area since deglaciation, and mostly approximately 7,000-10,000 years ago.

#### **Main Geological or Geomorphological Interest**

Mongan Bog is unusual in that it is relatively restricted in extent, surrounded almost entirely by the much higher ground of the Clonmacnoise Esker and associated sands and gravels. While today a generally flat and open landscape, the locality of Mongan Bog was covered by bog, marsh, quicksand, and ponds thousands of years ago as the bog formed. At that time the marshy ground would have been surrounded by dense woodlands of birch, willow, hazel and alder. Today, though drained, the bog is relatively intact and only suffers from extensive peat harvesting at its eastern end.

The bog itself comprises partially decomposed vegetation, which gradually sank into marshland within the wide, wet basin. This material accumulated layer upon layer for thousands of years, as the fibrous peat formed and eventually decayed into amorphous organic material over time.

The locality was therefore gradually covered by the rising bogland, which formed a dome-shaped, 'raised' bog. The high bog has a very well-developed micro-topography of hummocks, pools and lawns, with the active core area being particularly wet.

### Site Importance - County Geological Site

As various forms of peat, including intact and drained peat, small pockets of industrially-cutover peat, peat cut by locals, wetlands, and recovering peat are all accessible within a small locality, and as the bog and its amenity value exist due to the geological and hydrogeological processes of peat growth, the locality is recommended as a County Geological Site.

#### Management/promotion issues

Mongan Bog has been designated an SAC, pNHA and SPA (sitecodes 000580 and 004017), and is part owned by *An Taisce*. The geological aspects of the feature could be highlighted more in some of the promotional material on both the bog itself and nearby Clonmacnoise, as the esker and bog complement each other both in terms of genetic processes and geological history, as well as land use and aesthetic value today. Mongan Bog is one of six bogs in Offaly to benefit from being part of the National Parks and Wildlife Service LIFE Active Raised Bog Restoration Project.



The main dome of Mongan Bog, with the green fields of the Clonmacnoise Esker in the distance.



The Bord na Móna railway cutting through the heather-covered bog.



Pools on top of the wet, intact bog dome.



Sphagnum mosses, carnation sedges and heather on the bog dome.

