

DUN LAOGHAIRE - RATHDOWN – COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Ballybetagh Bog
OTHER NAME(S)	
IGH THEME	IGH 7 Quaternary
TOWNLAND(S)	Ballybetagh
NEAREST TOWN/VILLAGE	Shankill
SIX INCH MAP NUMBER	26
ITM CO-ORDINATES	720050E 720475N (centre of central portion of bog)
1:50,000 O.S. SHEET NUMBER	50, 56 GSI BEDROCK 1:100,000 SHEET NO: 16

Outline Site Description

Three sections of bog within the same narrow valley.

Geological System/Age and Primary Rock Type

The bogs at Ballybetagh are post-glacial to recent in age, covering around 12,500 years.

Main Geological or Geomorphological Interest

Ballybetagh Bog, comprising three distinct areas of 'fen' or 'marsh', is internationally renowned as a classical site of Irish Quaternary studies and as a significant locality for the study of the extinct Giant Irish Deer (*Megaloceros giganteus*). The long history of research on the Giant Irish Deer and its environment at this site, is due to the relative abundance of skeletal remains, as first excavated for a Famine relief project in 1847. Bones of Giant Irish Deer from the site have been dated at 10,600 BP.

The bogs lie at the head of the glaciofluvially-incised Glencullen Valley, just over 1 km west of the Scalp, and each is approximately 300m by 140m in area. The narrow valley floor, which was cut by a glacial meltwater (spillway), holds a relatively thick sequence of late glacial lake deposits and overlying fen (peat) growth. This provides a key international 'late-glacial to recent' stratigraphical section that is of major importance for the European chronology of the period.

Accelerator-mass spectrometer (AMS) ages indicate that the late glacial sediments cover the period from 12,540 to 10,070 years BP. The pollen and macrofossil plant records have been tied into absolute dating techniques and show that post glacial vegetation of Ireland began about 12,600 years BP.

Site Importance - County Geological Site; recommended for Geological NHA

This is an important site that, despite some drainage in modern times, retains much scope for future research work and is not just a historical site with no potential for either new or baseline comparison studies. It has been recommended as a geological NHA to National Parks and Wildlife Service (NPWS) by the Geological Survey of Ireland (GSI). It is now a proposed Natural Heritage Area (pNHA – Site Code 1202).

Management/promotion issues

The bog areas should not be further disturbed at surface by drainage or farming operations. The site is private farmland and there is no access without permission from the landowner.



The middle of the three bog areas is just right of centre in the image.



Looking northeast to the northern bog in a narrow valley.
Right: Looking north along the valley floor.



