# **TIPPERARY - COUNTY GEOLOGICAL SITE REPORT**

NAME OF SITE		Littleton Bog	
Other names used for site		Templetuohy Bog, Derryhogan Bog, Der	ryvilla Bog
IGH THEME		IGH7 Quaternary, IGH14 Fluvial and Lacustrine	
		Geomorphology, IGH16 Hydrogeology	
TOWNLAND(S)		Derryhogan, Newhill, Noard, Leigh, Longfordpass	
		South	
NEAREST TOWN/VILLAGE		Littleton	
SIX INCH MAP NUMBER		42, 43, 48	
ITM CO-ORDINATES		621500E 654500N (centre of bog)	
1:50,000 O.S. SHEET NUMBER	66, 67	GSI BEDROCK 1:100,000 SHEET NO.	18

## **Outline Site Description**

Littleton Bog comprises an extensive area of peatland in a wide and extensive flat plain to the northwest of the Slieve Ardagh Hills, approximately 2 -3 kilometres east of Littleton. The bog contains one of the largest extant areas of cutover bog surface in all of the Irish Midlands, and is also the most negotiable bog in all of Tipperary, traversed by a dense road and track network.

#### Geological System/Age and Primary Rock Type

Littleton 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

While today a generally flat and open landscape, the locality of Littleton Bog was covered by bog, marsh, quicksand, and ponds thousands of years ago as the bog formed. The site today comprises the remnants of a high, domed, raised bog that includes extensive areas of cutover bog, and only a minute proportion of the bog area is relatively intact.

The bog itself comprises partially decomposed vegetation, which sank into marshland within the wide, wet basin. This material was laid 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. Other features of peat interest are included within the site boundary, such as intact and drained peat, peat cut by locals, wetlands, and recovering peat.

Littleton Bog has been exploited since the 1950s by Bórd na Móna, and a number of important archaeological finds have been made, including a number of wooden trackways and a wooden weaving sword. A borehole completed through the peat in Leigh Townland in 1954 showed that the peat was over 7 m thick, and was sealed by a layer of peat formed after 1700 AD. The pollen counted from the peat in this core provided a continuous record of the vegetation of the vicinity since the end of the last Ice Age. This is the only place in Ireland such a continuous record has been found, meaning that the post-glacial stage in Ireland, since the last Ice Age, is termed the 'Littletonian Warm Stage'.

### Site Importance - County Geological Site; may be recommended for Geological NHA

As Littleton bog exists due to the geological and hydrogeological process of peat growth, the locality is ranked as a County Geological Site, and may also be designated as a Geological NHA owing to the importance of the vegetation record held within the pollen in the peat.

#### Management/promotion issues

Damaging activities associated with land use across Littleton Bog include drainage throughout the site and associated loss of habitat and damage to the hydrological status of the site. A signboard in Littleton Village, describing the borehole drilled nearby in 1954, and its importance, would be a worthy addition to the locality.



Littleton Bog, at Leigh, where the scientifically-important borehole was drilled in 1954.



Some of the extensive network of rail trackways through Littleton Bog.



Recently-footed stacks of turf at Leigh.



Much of the heritage of Littleton village is associated with the bog.

