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# Wood Green

[SO 6952 1658]–[SO 6935 1671]

## Introduction

Wood Green is situated about 1 km WSW of Blaisdon village, Gloucestershire, near the southern end of the Silurian inlier of May Hill in the southern Welsh Borderland (Figure 5.50). The site consists of a roadside quarry, an old railway cutting and a stream section. It has a complete sequence of the Ludlow Series and the early part of the Pridoli Series of the inlier and is a locally important reference section for the stratigraphical units it contains.

The May Hill Inlier was mapped by Lawson, who detailed the stratigraphy and palaeontology of Wood Green and later wrote a field excursion guide to the area (1955, 1967, 1982). In connection with mapping in the vicinity of Tewkesbury, the British Geological Survey presented a summary of the Silurian stratigraphy of the inlier (Worssam *et al.*, 1989). Murchison (1839), Phillips (1848) and Gardiner (1920, 1927, 1934, 1937) provided earlier accounts of the geology of the region. Aspects of the microflora (Dorning, 1981b) and faunas of Leintwardine age (Cherns, 1988) of Wood Green have also been documented. The Ludlow Series of May Hill contains unconformities but in general is easily correlated with the international standard sequence (Holland *et al.*, 1963; Cocks *et al.*, 1971, 1992).

## Description

Mudstones and siltstones dominate the six stratigraphical units of the Ludlow of the May Hill Inlier, which lacks the (Aymestry) limestone so characteristic of the upper Gorstian of many Welsh Borderland Silurian sequences. All six units, established using a combination of macrofaunal and lithological criteria (Lawson, 1955), are present at Wood Green, where they strike due north and dip 60°–65° to the west (Figure 5.50). Lawson (1955) noted that the Lower Flaxley Beds (c. 35 m thick) were visible only in the banks of the small stream at the southern end of the locality; the Upper Flaxley Beds (c. 17 m) and the succeeding Lower and Upper Blaisdon and Lower Longhope beds (collectively totalling c. 15 m) and the Upper Longhope Beds (c. 17 m) were seen in the roadside quarry and were also intermittently and in some cases better exposed in the nearby railway cutting. The latter section also originally displayed the overlying Ludlow Bone Bed (Strickland, 1853), a division that was also once visible at the bend in the stream section (Lawson, 1955, fig. 1, locality C).

The Lower Flaxley Beds consist of fossil-rich, olive calcareous siltstones with occasional thin, impure carbonate bands. *Dicoelosia biloba*, *Skenidioides lewisi*, *Aegiria grayi*, *Howellella elegans*, *Atrypa reticularis* and other small brachiopods are common, as is the trilobite *Dalmanites*. Corals and molluscs are much less abundant and graptolites are very scarce. In the thinner, more silty, Upper Flaxley Beds brachiopods are generally larger (strophomenids such as *Strophonella* are normally abundant), corals are more common (e.g. *Favosites*, *Heliolites* and *Halysites*) and molluscs are quite scarce. The characteristics of the succeeding Blaisdon and Longhope beds are as given in the description of the nearby Longhope Hill GCR site, to which must be added Cherns' (1988) data on lower Ludfordian faunas from Wood Green, including the record of the biozonal graptolite *Saetograptus leintwardinensis*. The Wood Green sequence has also yielded diverse palynomorph assemblages and is the type locality for several acritarch species (Dorning, 1981b).

The Ludlow sequence at May Hill contains several stratigraphical breaks in which much of the Gorstian Stage and parts of the Ludfordian Stage are missing (Lawson, 1955, 1982; Worssam *et al.*, 1989; Cocks *et al.*, 1992). The Lower Flaxley Beds, which succeed the Much Wenlock Limestone Formation without a discernible break, are considered to be of earliest Gorstian age (*Neodiversograptus nilssoni* Biozone). The unconformably overlying Upper Flaxley Beds (late Gorstian: *Pristiograptus tumescens* Biozone) are correlated with the Lower, and the basal part of the Upper Bringewood formations of Shropshire. The Lower and Upper Blaisdon beds and Lower Longhope Beds are collectively correlated with the type Leintwardine Group of Ludfordian *Saetograptus leintwardinensis* Biozone age. The Upper Longhope Beds rest with minor unconformity on the Lower Longhope Beds and are correlatives of the late Ludfordian type Whitcliffe Group.

The local equivalent of the basal Pfrido Ludlow Bone Bed Member of Shropshire is the phosphatized pebble bed (25 mm thick) containing thelodonts and brachiopod fragments. At Wood Green it is overlain by about 3 m of grey sandy siltstones — the Clifford's Mesne Sandstone (Figure 5.50) — which have yielded a restricted fauna of inarticulate brachiopods, bivalves, ostracods and eurypterid and plant remains. Locally there follows a considerable thickness of red marls of the mid- and late Pridoli age Raglan Marl Group.

## Interpretation

The Silurian deposits at May Hill seemingly accumulated on a marked topographical high (Holland and Lawson, 1963; Charns, 1988; (Figure 5.47)) of the Midland Platform and in the south-eastern part of the Welsh Basin (see Siveter *et al.*, 1989, figs 10, 11; Bassett *et al.*, 1992, figs S4a, S4b, S5a, S5b). The Ludlow Series in the May Hill Inlier (40–80 m) is much thicker than the very attenuated Ludlow sequence at the adjacent Gorsley Inlier but is substantially thinner than the Ludlow at the Malverns and Woolhope Welsh Borderland areas to the north (Lawson, 1955). The several gaps in the Ludlow sedimentary sequence at May Hill denote local non-deposition and, or, relative uplift.

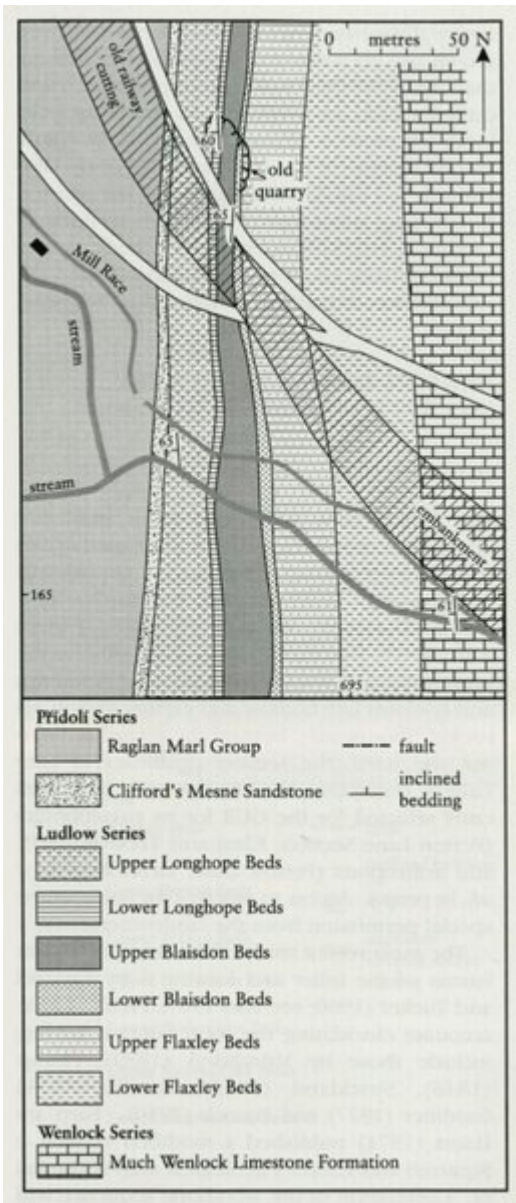
The fossil-rich, Ludlow strata of Wood Green reflect sedimentation on a shallow marine shelf. Faunal and lithological changes in the latest Ludlow to early Pridoli indicate changes in sea level and sea chemistry. They represent the gradual onset of shallower, perhaps reduced salinity conditions, thus heralding the non-marine red bed deposition which signifies the final, latest Silurian–Devonian demise of the Welsh Basin (see, for example, Bassett *et al.*, 1982).

Both Wood Green and, 2 km to the north, Longhope Hill exemplify the shelf facies of the Ludlow Series and are the only GCR sites in the May Hill Inlier. Other sites in nearby inliers that also contain a Ludlow–Pridoli series boundary sequence include Tites Point at Tortworth, Brook House at Usk and Linton Quarry at Gorsley.

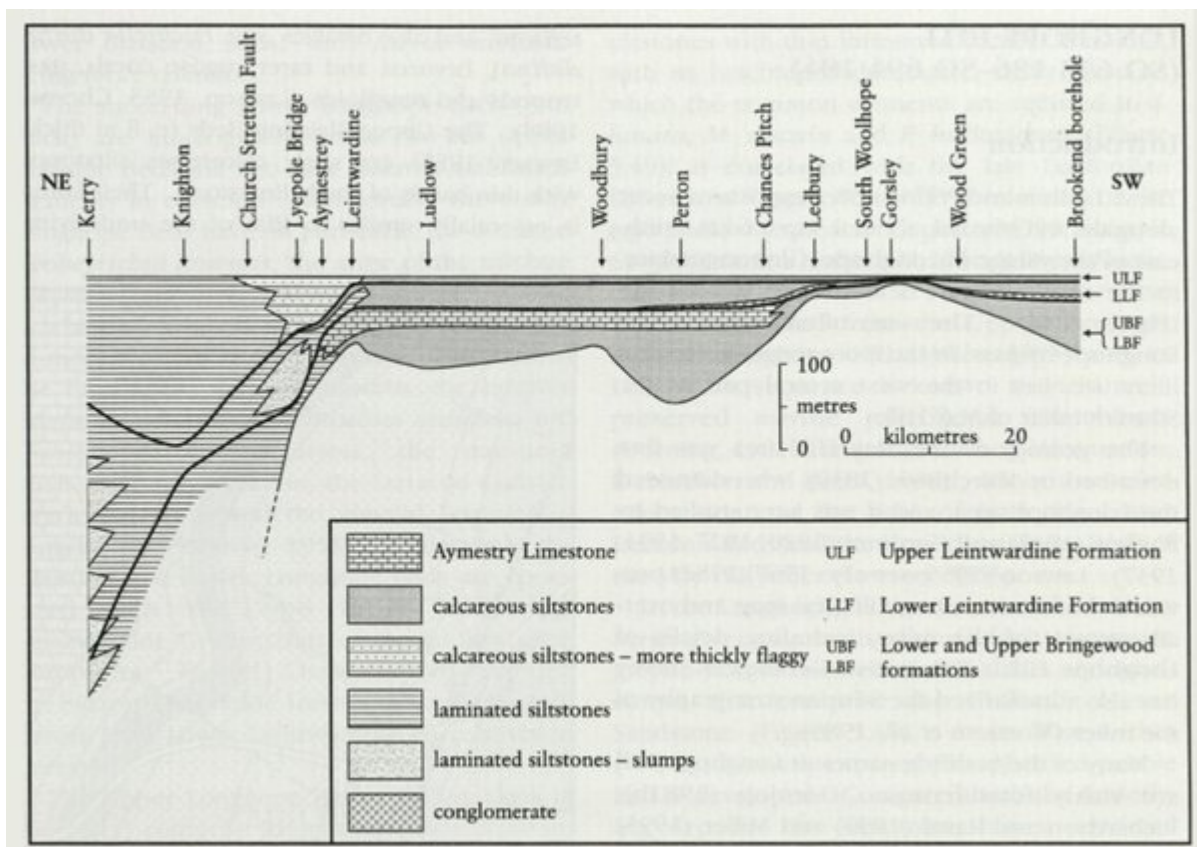
## Conclusions

Though accessibility to these fossil-rich sections is now diminished, because they are in part overgrown and permission for access is often denied, they maintain their scientific importance, especially for research purposes. As one of the chief localities used to characterize all of the stratigraphical units of the Ludlow Series of the May Hill Inlier, it has fundamental, local importance. It contains the original standard sections of Lawson's (1955) Upper Flaxley Beds, Lower Blaisdon Beds and Upper Blaisdon Beds. The site also has a Ludlow–Pridoli series boundary section.

## [References](#)



(Figure 5.50) The geology of the Wood Green area, Gloucestershire (after Lawson, 1955).



(Figure 5.47) The concept of the 'Gorsley topographical high' of the Welsh Basin, as illustrated in the facies and thickness variations of the Leintwardine Group (early Ludfordian Stage) in a general south-west to north-east transect from the region of the Brookend Borehole, Gloucestershire, to Kerry, Powys (after Cherns, 1988).