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# Deepwood

[SO 4595 7352]

## Introduction

This locality is a section of middle Ludlow rocks along Raddle Brook, a minor, northerly flowing tributary of the River Teme in Shropshire. The site is in woodland about 830 m south of Deepwood (Figure 5.6) on Bringewood Chase, and is about 5 km west of Ludlow.

The locality occurs in the type area of the Ludlow Series and is on the northern limb of the Ludlow Anticline. The stratigraphy of this region was established in modern terms by Holland *et al.* (1959, 1963) and has subsequently been summarized in a variety of papers, correlation charts and field guides (e.g. Cocks *et al.*, 1971, 1992; Lawson, 1977b; Lawson and White, 1989; Siveter *et al.*, 1989; Jenkinson, 1991).

Deepwood is the official basal boundary stratotype section for the Upper Bringewood Formation (Holland *et al.*, 1963, locality 131). Currently the section is very poorly exposed.

## Description

As detailed by Holland *et al.* (1963) the stream exposes Lower and Upper Bringewood formations, dipping at about 26° north. The base of the upper unit is mapped at a distinct change in slope in the stream profile and formerly the unit itself was exposed for about 100 m north of that point. To the south of that point, upstream for about 7 m, the lower unit was exposed in a broader, flatter part of the stream bed. Above (i.e. to the south of) the latter stretch, a 1.1 m high cliff exposed the top part of the Lower Bringewood Formation. Beds of the latter unit were also exposed just to the west of the small cliff, at and immediately above a small waterfall.

The Lower Bringewood beds here are thickly flaggy to massive calcareous siltstones with some limestone lenses and nodules. Fossils are common and include brachiopods such as *Atrypa reticularis*, *Howellella elegans*, *Isorthis orbicularis* and *Sphaerirhynchia wilsoni* as well as gastropods, bryozoans, crinoids, ostracods and trilobite fragments. By contrast the Upper Bringewood strata are hard, flaggy limestones, recorded as bedding plane exposures in the stream. Fossils include solitary and compound corals such as *Favosites*, many brachiopod species including *Kirkidium knightii*, together with gastropods, crinoids and trilobites.

## Interpretation

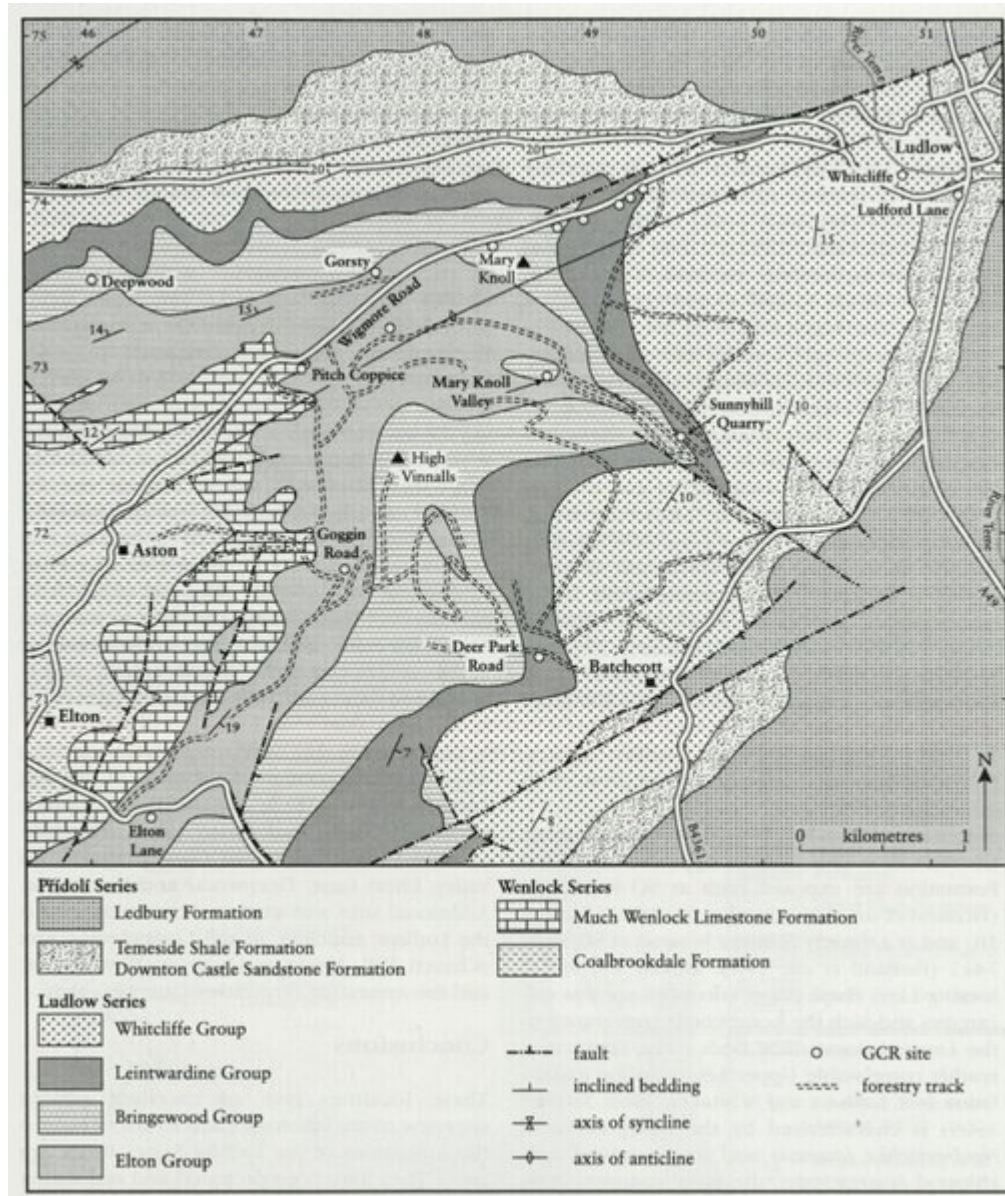
The rocks here represent relatively shallow water sediments formed on the eastern margin (the Midland Platform) of the Welsh Basin (Siveter *et al.*, 1989, fig. 10; Bassett *et al.*, 1992, fig. S4b). During mid-Ludlow times Deepwood was positioned on the distal part of an inner shelf region that extended eastwards to Ludlow and beyond to the west Midlands area (Watkins and Aithie, 1980). Immediately to the west of the Deepwood site was a higher energy barrier zone of the shelf edge itself, as seen locally for example at the GCR sites at View Edge near Craven Arms to the north-west, Mocktree Quarries and Bow Bridge near Leintwardine to the west and Aymestrey Quarries in the southern part of the Ludlow Anticline. Sunnyhill, Deer Park Road and Goggin Road in the nearby Mortimer Forest area of the Ludlow Anticline are, in addition to Deepwood, other local GCR sites that have Bringewood carbonates of a back-barrier, shelf aspect.

The Deepwood section is now much degraded. Deer Park Road presents an alternative basal boundary reference section for the Upper Bringewood Formation (Lawson and White, 1989).

## Conclusions

This fossiliferous section has national importance in stratigraphy in defining the base of a unit of the type Ludlow Series, namely the Upper Bringewood Formation. At the time when it was originally described (Holland *et al.*, 1963) it was considered to be a key locality, hence its formal stratigraphical and GCR status. However, though technically still the stratotype, its importance and utility has waned as other, much better exposed, more extensive and accessible Upper Bringewood sections have come to light within the Ludlow Anticline.

## References



(Figure 5.6) Map of the geology south-west of Ludlow, showing GCR sites along the Wigmore Road and elsewhere in the eastern part of the Ludlow Anticline (after Holland *et al.*, 1963; Lawson, 1977; Lawson and White, 1989).