

# Holway Hill Quarry, Dorset

[ST 638 211]

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## Introduction

The GCR site known as 'Holway Hill Quarry' comprises an old quarry face that now marks the southern boundary of the grounds of a residential property, c. 1.5 km south of the village of Corton Denham, on the lane to Sherborne, Dorset. It shows a relatively thick development of Aalenian strata, compared with some other sections in the Sherborne area, and has been designated as the type section of the Corton Denham Member of the Inferior Oolite Formation (Parsons, 1980a). It includes two local marker beds — the Ringens Bed and the Brebissoni Bed — which take their names from species of brachiopod.

## Description

The section at Holway Hill Quarry was first described by Buckman (1893a), later by Richardson (1916a), and subsequently cited by Kellaway and Wilson (1941) and Wilson *et al.* (1958). The maximum thickness of strata recorded in the quarry is 4.3 m (Buckman, 1893a). The following record of the section, through just under 3 m of strata, is based on that lodged in English Nature files. The lithostratigraphical classification follows Parsons (1980a) and Bristow *et al.* (1995).

	Thickness (m)
<b>Inferior Oolite Formation</b>	
<b>Corton Denham Member</b>	
5: <i>Ringens Bed</i> : Biosparite, hard, brown, blue-hearted; profuse <i>Homoeorhynchia ringens</i> (von Buch)	seen to 0.48
4: Marl and limestone, soft, rubbly; weathered and conspicuous in quarry face	0.18
3: <i>Brebissoni Bed</i> : Limestone, sandy, weakly nodular, hard, brown, shelly, bioclastic; moderately burrowed with small, ramifying burrows; ammonites, mainly as distorted internal moulds of body chambers including <i>Brasilia</i> , common towards impersistent brown marl at base	0.76–0.90
2: Limestone, sandy, hard, brown, in several massive courses; intensely burrowed with large diameter, sub-vertical to vertical burrows filled with orange sandy material; thin marl at base	0.70–0.76
1: Biosparite, hard, blue-hearted weathering brown, shelly	seen to 0.50

## Interpretation

The Ringens Bed, at the top of the section at Holway Hill Quarry, was first noted by Buckman (1893a) and is named after the rhynchonellid brachiopod *Homoeorhynchia ringens* (von Buch) (Figure 2.38). It overlies the Brebissoni Bed — a modification of Richardson's (1916a) *Pseudoglossothyris brebissoni* [*Deslongchamps*] Bed — named after a species of terebratulid brachiopod (Parsons; 1980a). The section thus shows the stratigraphical relationship between these two beds, which have generally not been seen together in other local sections (see Louse Hill Quarry and Halfway House Cutting and Quarry GCR site reports, this volume).

The Corton Denham Member, of which this is the type section, was proposed by Parsons (1980a) (as Corton Denham Beds) for the 'grey beds' of Richardson (1932), originally described near the village of Corton Denham; the village is itself sited on the underlying Bridport Sand Formation of the (Lower Jurassic) Lias Group (Bristow *et al.*, 1995). The member is not now well exposed but has been recovered in cored boreholes. According to Bristow *et al.* (1995), it comprises a lower division of pale-grey, burrowed and bioturbated limestones with sandy, calcareous mudstone partings, and an upper division of olive-grey, calcareous mudstones with only thin interbedded limestones. Extensive burrowing and irregular bed boundaries give the limestones a pseudo-nodular fabric. The base of the member and junction with the Bridport Sand Formation is marked by a progressive downward increase in the amount of matrix sand in the limestones.

Ammonites of the genus *Brasililia* indicate that the strata at this site belong to the Aalenian Bradfordensis Zone, although Bed 1 may be of the next oldest Murchisonae Zone (Parsons, 1980a). Additional faunal, mainly bivalve, records were reported by Richardson (1916a).

## Conclusions

The section at Holway Hill Quarry exposes two faunal marker horizons — the Ringens Bed and the Brebissoni Bed — which are important for local and regional classification and correlation of the Inferior Oolite Formation. It also provides a type section for the Corton Denham Member of the latter formation. Ammonites indicate the Aalenian Stage, which is more fully developed here than at other localities in this area. The site is thus an important one for regional classification and correlation of some of the oldest Middle Jurassic strata.

## References



(Figure 2.38) *Homoeorhynchia ringens* (von Buch) as illustrated by Davidson (1878). The specimen on which these figures are based in fact came from Halfway House Cutting and Quarry (see GCR site report, this volume). The specimen is shown at natural size.)