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# Laycock Railway Cutting, Somerset

[ST 678 213]

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## Introduction

Laycock Railway Cutting, on the main Salisbury to Exeter line, lies between the villages of Stowell and Milborne Wick in Somerset, and c. 4 km north of the quarry at Goathill (see GCR site report, this volume). Like the latter site, it exposes the Fuller's Earth Rock Member (Figure 2.40) but only the *Ornithella* Beds at the top of the succession are common to both localities. The cutting is sited beyond the northern limit of the *Linguifera* Bed, of which Goathill is the type locality, and the beds below the *Ornithella* Beds are classified as Milborne Beds. These take their name from nearby Milborne Wick (Buckman, 1918, 1921). From the early descriptions of the c. 300 m-long cutting (Woodward, 1894; White, 1923), it is clear that the whole of the Fuller's Earth Rock Member was once exposed here with a trace of Upper Fuller's Earth Member to the north-east, and up to about a metre of Lower Fuller's Earth Member (*Acuminata* Beds) to the south-west (but see 'Interpretation' below).

## Description

The c. 10 m section given below is based on that reported by Woodward (1894) and White (1923).

	Thickness (m)
<b>Fuller's Earth Formation</b>	
<b><i>Fuller's Earth Rock Member</i></b>	
<i>Ornithella</i> Beds	
Limestone, grey and brown, 'earthy', rubbly on top; crowded with brachiopods ( <i>Ornithella</i> )	2.4–2.7
<i>Milborne Beds</i>	
Limestone, buff-coloured, 'earthy', more massive than above; shelly in places with fossils weathering-out on joint surfaces	2.7–3.0
Marl, dark bluish-grey, with indurated bands of pale bluish-grey 'earthy' limestone; casts of <i>Pleuromya</i> in life position; <i>Pholadomya</i> fairly common	c. 4.6
<b><i>Lower Fuller's Earth Member</i></b>	
<i>Acuminata</i> Beds	
Clay, poorly exposed	seen

Tulitid ammonites (both *Tulites* and *Morrisiceras*) and the echinoid *Collyrites* were also reported.

When Torrens (1966) investigated this site, a major part of the Milborne Beds was well exposed in long faces on both sides of the cutting. However, he did not see the *Ornithella* Beds and concluded that they must have been formerly exposed in a higher part of the cutting, which may not have been seen for nearly 50 years. The following c. 4.6 m section is based on Torrens' (1966) detailed record of part of the Milborne Beds measured on the south side of the cutting. More recently, Bristow *et al.* (1995) reported up to 7 m of exposed beds at this locality but gave no measured section other than a reclassification of Woodward's (1894) record (see 'Interpretation' below).

	Thickness (m)
<b>Fuller's Earth Formation</b>	
<b><i>Fuller's Earth Rock Member</i></b>	

## Milborne Beds

18: Rock in subsoil; <i>Tulites</i> in basal 0.15 m, <i>Morrisiceras</i> above	0.46–0.76
17: Limestone, rubbly; <i>Tulites</i>	0.3–0.46
16: Limestone, marly, softer than above; <i>Tulites</i>	0.15
15: Limestone, rubbly, prominent; <i>Tidites</i> and corals ( <i>Montlivaltia</i> and <i>Diastopora</i> )	0.3–0.46
14: Limestone, marly; brachiopods ( <i>Ornithella</i> and <i>Rhynchonelloidella</i> ); bivalves ( <i>Catinula</i> and <i>Modiolus anatinus</i> Wm Smith); and gastropods ( <i>Globularia?</i> and <i>Pleurotomaria</i> cf. <i>cotswoldensis</i> Cox and Arkell)	0.46
13: Limestone; oppeliid ammonite ( <i>Oxycerites</i> ), <i>Ornithella</i> and <i>Pholadomya lirata</i> (J. Sowerby); <i>Tulites</i> at base	0.15–0.23
12: Marl parting; oppeliid ammonite ( <i>Oxycerites</i> ), <i>Ornithella</i> and <i>Pholadomya lirata</i> (J. Sowerby); <i>Tulites</i> at base	0.05
11: Limestone; oppeliid ammonite ( <i>Oxycerites</i> ), <i>Ornithella</i> and <i>Pholadomya lirata</i> (J. Sowerby); <i>Tulites</i> at base	0.23
10: Limestone, bedded, rather fractured; <i>Ornithella</i> , <i>Catinula</i> and <i>Pholadomya</i> spp.	0.3–0.38
9: Limestone; <i>Tulites</i>	0.23
8: Limestone, bedded, rather fractured; <i>Tulites</i> and nautiloid	0.15
7: Limestone with corals ( <i>Montlivaltia</i> )	0.23
6: Marl parting; <i>Pleuromya cakeiformis</i> (Phillips)	0.03
5: Limestone; <i>Tulites</i> and <i>Pleuromya</i> cf. <i>marginata</i> (Agassiz)	0.25
4: Marl parting, very conspicuous; <i>Pholadomya lirata</i>	0.05
3: Limestone, rather fractured	0.13
2: Limestone	0.3
1: Limestone	seen

## Interpretation

Laycock Railway Cutting lies near the southern limit of the Milborne Beds but within their historical type area (Buckman, 1918, 1921). As a subdivision of the Fuller's Earth Rock Member, they extend at least as far north as Bath. The lithology of these beds and that of their partial correlative, the Thornford Beds, is described in the Troll Quarry see GCR site report (this volume). Although in their typical development these two units are lithologically distinct, in some cases their differentiation is more subjective (Torrens, 1966). Contrary to all other accounts, Bristow *et al.* (1995) removed Woodward's (1894) and White's (1923) lowest interbedded marl and limestone unit (see first section above) from the Fuller's Earth Rock Member (Milborne Beds) and included it instead with the underlying Lower Fuller's Earth Member (Acuminata Beds), apparently on the basis of *Praeexogyra acuminata* (J. Sowerby) specimens collected from loose material but deduced to have come from the top of this unit (Taylor, 1990).

The tulitid ammonite faunas enable recognition of the Middle Bathonian Subcontractus and Morrisi zones. Arkell (1952) recorded several species of *Tulites* from here, and macroconch *Tulites* and rarer microconchs were recorded by Torrens (1966) from Bed 5 up to the basal part of Bed 18 in the section given above. These are diagnostic of the Subcontractus Zone (see also Troll Quarry GCR site report, this volume). The subsequent appearance of the genus *Morrisiceras* in the lower part of Bed 18 marks the base of the Morrisi Zone. Arkell (1954b) recorded a number of species from here, and Page (1996a) described Laycock Railway Cutting as a formerly rich source of *M. ex gr. morrisi* in Milborne Beds facies. *Tulites* and *Morrisiceras* are mutually exclusive in their stratigraphical ranges and the Subcontractus–Morrisi zonal boundary is therefore readily recognized. Elsewhere (see Goathill, Shepton Montague and Bruton Railway Cutting GCR site reports, this volume), the basal part of the next youngest zone is characterized by large perisphinctid ammonites that occur in the basal part of the *Ornithella* Beds, but no ammonites were reported by the early authors who saw this interval at Laycock Railway Cutting. Although Taylor (1990) reported a *Procerites* amongst ex-situ material in the cutting, this was

inferred to be from the Lower Fuller's Earth Member.

As at Goathill (see GCR site report, this volume), the brachiopods recorded from the *Ornithella* Beds at Laycock Railway Cutting are distinct from those of the underlying beds. They are large forms referred to as *Ornithella ornithocephala* (J. Sowerby) by Richardson (in White, 1923) but almost certainly belonging to the group of *O. bathonica* (Rollier). Those of the Milborne Beds are the small species *Ornithella haydonensis* Muir-Wood as recorded from the correlative Thornford Beds at Goathill (see (Figure 2.37)).

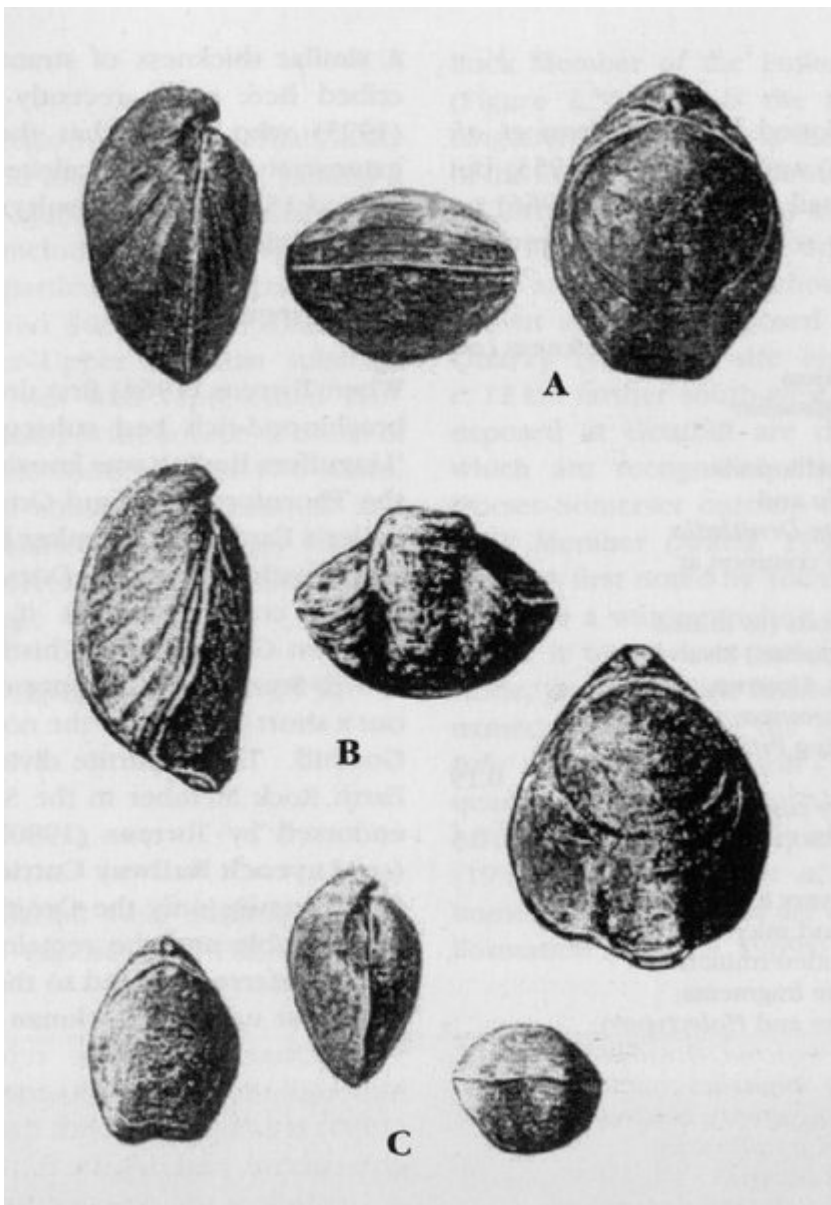
## Conclusions

Laycock Railway Cutting is one of several localities in the south Somerset–north Dorset area that exposes the Fuller's Earth Rock Member but it is the only one where the member has been seen in its entirety. It includes an ammonitiferous development of the Milborne Beds in their historical type area; the ammonites indicate the Middle Bathonian Subcontractus and Morrissi zones. A little farther south, the Milborne Beds are replaced by the Thornford Beds and Linguifera Bed (see Goathill GCR site report, this volume). The site is thus an important one for regional classification and correlation of the Fuller's Earth Rock Member within the Bathonian succession of Wessex.

## [References](#)



(Figure 2.40) Fuller's Earth Formation exposed on the south side of Laycock Railway Cutting. (Photo: British Geological Survey, No. A15155; reproduced with the permission of the Director, British Geological Survey, © NERC, 1990.)



(Figure 2.37) (A) *Ornithella bathonica* (Rollier), lectotype from the Fuller's Earth Rock Member, near Bath; (B) *'Terebratula' linguifera* Davidson, Fuller's Earth Rock Member, Haydon, Dorset; (C) *Ornithella haydonensis* Muir-Wood; holotype from the Fuller's Earth Rock Member, Haydon, Dorset. (Reproduced respectively from Muir-Wood, 1936, pl. 5, figs 7a–c; pl. 3, figs 12a–c; and pl. 5, figs 1a–c; courtesy of the Palaeontographical Society) All specimens are shown at natural size.)