DORSET LOCAL GEOLOGICAL SITES SURVEY

Site number G SY49/11

Site name Shute's Lane, Symondsbury

Summary description

Jurassic, Middle Lias Thorncombe Sands and Middle to Upper Lias Junction Bed (Beacon Limestone).
The Junction Bed (Beacon Limestone) is intermittently exposed in the sides of the lane leading north-west out of the village. The lane crosses a fault approximately 500 m from the church. On the downthrow (southern) side of the fault the Upper Lias Bridport Sands form Colmers Hill. On the northern side the Middle Lias Thorncombe Sands are magnificently exposed in the sunken lane west of Rainshill cottage. These sands are iron-stained various shades of orange and include two rows of large rounded calcareous siltstone doggers.

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The underlying geology is exposed along the nearby cliffs between Eype and Burton Bradstock and consists of a sequence of clays, sandstones and thin limestones of Lower and Middle Jurassic age. However, inland, the distribution of the rocks is complicated by faults. Between Quarry Hill, Chideock and Bridport two east-west trending faults have allowed a huge block of rocks to subside and this is why the landscape here is so different to the Marshwood Vale to the north. The southern fault runs south of Symondsbury across the southern face of Chideock Quarry Hill and roughly on the line of the main road; the northern one crosses Shute's Lane and Broad Oak road, leaving Symondsbury village in the downslip part of the "graben". The rock exposures along the sides of a group of sunken lanes running away from the village have been designated as Regionally Important Geological Sites (RIGS) because they cut through the different sands of the Middle and Upper Lias, as well as through the Beacon Limestone (Junction Bed).

To the north west of Symondsbury village weathered and overgrown exposures of Beacon Limestone can be found in the banks of Shut's Lane, at first about knee height. At the base of the section reworked and bored Marlston Rock Bed pebbles are incorporated in an oolitic, ironshot micrite. The Toarcian part (Beacon Limestone) is a pinkish micrite with light cream micrite inclusions. In this section an encrusted *Hildoceras bifrons* was found, and other ammonites could be seen lying at all angles and coated in limonite.

The lane follows the dip slope of the rock. Near the brow of the hill only clay is visible. This is the Down Cliff Clay. As the slope levels out and the steep sides disappear, the lane crosses the fault, and the view through the hedge to the south is of Colmer's Hill. The conical hill originally had a capping of limestone to protect it, as Allington, Sloe and Chideock Quarry Hills have, but now it only has Bridport Sands above the clay.

On the right hand side of the lane the fields fall away into a gully cut into the soft Middle Lias sands, while the lane briefly follows the line of the northern fault. In the deep holloway after the cottage are two rows of rounded doggers (hard concretions of calcite-cemented sand) within the sandstone. These are the Middle Lias Thorncombe Sands.