
Stidham Farm

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Highlights

Stidham Farm, Saltford, is important as a representative of the middle (50') terrace of the Avon. The site has good examples of cold-stage fluvial sedimentation and is the type-locality of the Stidham Member.

Introduction

At Stidham Farm, the 15 m terrace of the River Avon is underlain by trough cross-bedded gravels of the Stidham Member. The gravels contain abundant clast types not found in the Avon catchment or found only at outcrop downstream. They thus provide important evidence for a glacial advance into the Avon Valley from the west.

The site was first described by Moore (1870), who noted that mammoth remains had been found there and that the gravels were rich in material derived from the Lias (the local bedrock) and the Coal Measures. It was re-described in some detail (as Steedham Farm) by Woodward (1876), who described gravels to the north-east of Stidham Farm and noted their wide range of clast lithologies. He observed that the gravels he described were one of two patches in the area around Stidham Farm. Winwood (1889) listed the site as containing mammoth remains.

Davies and Fry (1929) briefly described gravels from the other outlier, to the west of the farm. The site was mentioned by Palmer (1931), who assigned it to his 50' terrace, but gave no further details. It was revisited in 1984 during the compilation of the Geological Conservation Review and subsequently designated the type-locality of the Stidham Member by Campbell *et al.* (in prep.). The deposits were attributed, on geomorphological grounds, to Oxygen Isotope Stage 8.

Description

Survey of degraded sections at [ST 674 684], on the margins of the old gravel excavations described by Davies and Fry (1929), gives a sequence that is essentially similar to those described by Woodward (1876) and Davies and Fry (1929). A similar though thinner sequence was seen nearby in the edge of the old railway cutting (maximum bed thicknesses in parentheses).

3. Dark yellow-brown, stony clayey silt, disturbed in its upper part by ploughing and containing occasional sherds of nineteenth century pottery. The clasts include brown and red sandstone, flint, Greensand chert and quartzite. (0.3 m)

2. Yellow-brown, planar trough cross-bedded and massively bedded, clast-supported sandy gravel, with occasional scour-fills of coarse sand. The clasts are predominantly Jurassic limestones (micritic and oolitic), with some Carboniferous Limestone, brown and red sandstone, flint, Greensand chert and quartzite. Fossils derived from the Carboniferous Limestone, Lower Has, Upper Has and Greensand were reported by Davies and Fry (1929). A sample taken from one of the scour-fills yielded no fossil material. (1.2 m)

1. Yellow-brown, imbricated, very coarse, silty sandy gravel, with some cobbles and small boulders of micritic (Lias) limestone. The gravels lie on an undulating erosion surface cut in Has mudstones. (0.3 m)

Interpretation

Bed 3 is most probably the result of soil formation on, and plough disturbance of, the underlying gravels. Any limestone pebbles present in this bed have probably been removed by weathering. Bed 2 has the hallmarks of braided sandy gravel, typically laid down in the British Pleistocene during stadial phases (Briggs and Gilbertson, 1980). Bed 1 is a 'lag'

deposit, consisting of large clasts moved a minimal distance by the river during an erosional phase, when all smaller material was carried farther downstream. This bed is the probable source of the mammoth bones found during the nineteenth century. These may have been *in situ*, but in this context are very likely to have been recycled. The deposits at Stidham Farm, therefore make up a typical cold-stage fluvial aggradation. The virtual absence of fossil material from the site is consistent with this interpretation, although the facies present at the site would generally have been unsuitable for the deposition of molluscs (Briggs *et al.*, 1990), since the sediments are coarse-grained and were most probably laid down near the channel centre. Like most Avon Valley gravel localities, erratic lithologies such as flint, Greensand chert and Carboniferous limestones and sandstones are common. They provide important evidence for a previous glacial advance into the Avon catchment from the west.

Conclusion

Gravels of the Stidham Member, underlying the middle (15 m) terrace of the Avon, are preserved at Stidham Farm, Saltford. The site has importance as one of a set safeguarding representatives of the terrace stratigraphy of the Bath Avon. These terrace deposits have critical importance because of their relationship with the ancient glacial deposits of the Bath and Bristol areas. Deposits at the site provide impressive examples of cold-stage fluvial sedimentation and contain a wide variety of erratics.

[References](#)