

LOCAL GEOLOGICAL SITES

TENDRING DISTRICT



Wrabness Brickearth Cliffs and Foreshore

Site location: Near Wrabness sluice on the Stour Estuary west of Wrabness.

Grid reference: TM 163 319 to TM 170 322

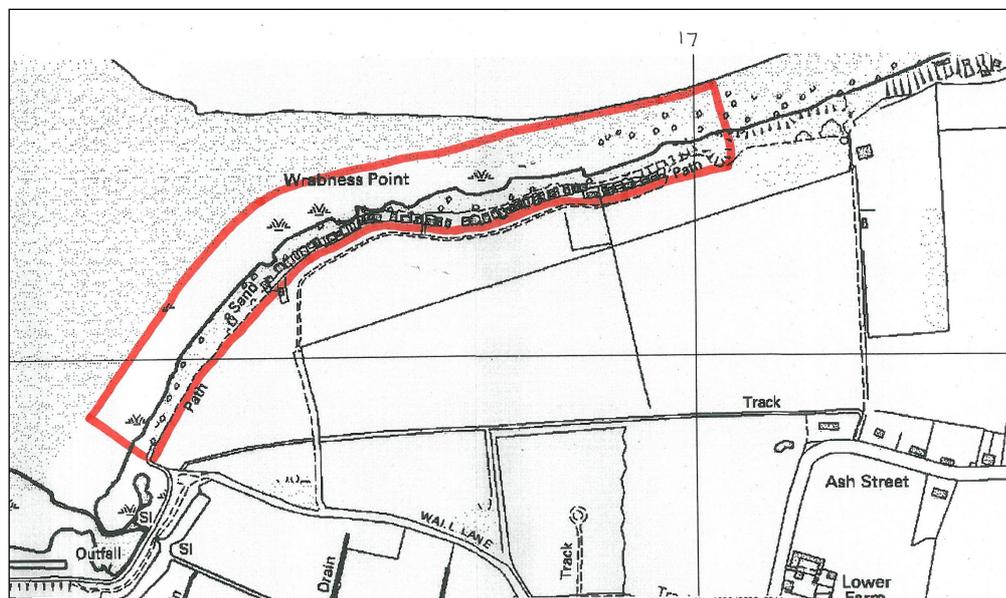
Status: Foreshore accessible at all reasonable times

Summary of the geological interest:

Brickearth dating from an interglacial stage of the Ice Age is exposed in the low cliff and foreshore eastwards from Wrabness sluice to beyond Wrabness Point. The brickearth has yielded bones of elephant and mammoth and has produced these fossils since at least the beginning of the eighteenth century. Fossils have, however, always been difficult to find and are often in a very friable condition requiring great skill to extract and conserve them.

The brickearth is thought to belong to an interglacial stage that corresponds with Marine Isotope Stage 7 (approximately 200,000 years old). The brickearth contains lenses of gravel and fine sand. Some of the brickearth on the foreshore near Wrabness sluice was reported to contain fossil shells.

Also along this section of the coast are terrace gravels from the River Stour which contain rocks derived from the Kesgrave Sands and Gravels (early Thames gravels). On the beach are occasional fossils derived from the Red Crag, which presumably originate from a former capping of basal Red Crag gravel at the top of the London Clay cliffs to the east.



Site Assessment. Local Geological Sites (LoGS) in Essex are assessed using criteria based on DEFRA guidance. An assessment form is used which asks key questions under four value categories: scientific, educational, historical and aesthetic. This site has been assessed and qualifies under these criteria.

Scientific interest and site importance

The brickearth along this section of the Stour Estuary is of scientific interest. At Wrabness the brickearth was originally thought to date from the Ipswichian interglacial stage which is Marine Isotope Stage 5 (120,000 years ago) but it is now thought to belong to the preceding interglacial stage, which corresponds with Marine Isotope Stage 7 (approximately 200,000 years ago). The brickearth contains lenses of gravel and fine sand and on the foreshore near Wrabness sluice it was reported to be shelly, with the bivalve *Corbicula fluminaris* (George 1997).

The earliest record of fossils from here is from 1701 when the Reverend Robert Rich, rector of Wrabness, found at here "diverse bones of an extraordinary bigness" and concluded that they were probably bones of elephants brought over by Emperor Claudius for use in his wars with the Britons. Bones of mammoth and straight-tusked elephant were also found here following a cliff fall in 1906.

The record of fossil discoveries here for over 300 years also make the site of great historical interest. George (1997) provides a well-researched history of the site together with a comprehensive list of references.

Other information

For much of its length the cliff of brickearth is obscured by chalets, which are supported on timber posts.

This Local Geological Site falls within the Stour Estuary SSSI. On the Essex side of the estuary the SSSI has been notified for its biological interest except for one unit, which is immediately east of this site. This unit has been notified for the nationally important exposures of the lowest horizon of the London Clay (now called the Harwich Formation) in the high cliffs towards Stone Point.

The Reverend Robert Rich, rector of Wrabness, who, in 1701, was the first person reported to have found bones here, has a memorial in Wrabness Church and a tomb in the churchyard.

References

GEORGE, W.H. 1997. **An Ipswichian interglacial site at Wrabness, Essex.**
Essex Field Club Newsletter. No. 21. Pages 4-6.



Low cliff of
brickearth at
Wrabness.