
Hare Farm Lane, Brede, East Sussex

[TQ 8314 1844]

Highlights

Hare Farm Lane, Brede is the best site for the Brede Bone Bed. It has produced specimens of dinosaurs and crocodylians, and there is potential for future significant discoveries.

Introduction

The Brede Bone Bed, another of the bone beds within the Wadhurst Clay (Figure 8.2), (Figure 8.3), is most readily accessible in Hare Farm Lane, Brede, and this site has yielded the most complete fauna (Allen, 1949). Literature recording the reptile fauna is limited to Lydekker (1890) and Allen (1949, 1976), but the diversity could be greatly enhanced by re-excavation of this lane-side cutting.

Description

The Brede Bone Bed has been described in some detail at the Hare Farm Lane locality (Allen, 1949, pp. 276–9): 'The bone bed comprises thin lenticles of buff sand up to 2 feet long, 1 foot wide and 2 inches thick... The lenticles cut across the current-bedding of the surrounding siltstones and shales, and on top are bevelled off to a common level... Rootlets from the overlying soil-bed pass through the bone-bed... The buff sand constituting the bone-bed... is non-pebbly, rather argillaceous and poorly sorted, and always contains bivalve casts (including *Neomiodon medius*). The detritus includes quartz and glauconite, mixed with large quantities of comminuted scales, teeth and bone varying in size from finest powders to fragments over two inches long...' It lies in the basal Wadhurst Clay (Valanginian) between the Top Ashdown Pebble Bed and the Brede *Equisetum lyelli* Soil Bed. Lake and Shephard-Thorn (1987, p. 29) note that the Brede Bone Bed may reflect localized concentrations of material, and is probably not laterally correlatable over long distances like the Cliff End/Telham Bone Bed.

Fauna

Allen (1949, p. 278) listed the fauna of the Bone Bed as molluscs (*Neomiodon*, *Vtviparus*), fishes (*Lepidotus*, *Hybodus*) and reptiles ('chelonian fragments, crocodylian teeth, bone'). A few specimens labelled 'Brede' are preserved in the BMNH and HASTM. These may or may not have come from Hare Farm Lane.

Archosauria: Crocodylia: Neosuchia

Goniopholis crassidens Owen, 1842 BMNHR3373

Suchosaurus sp. BMNHR4415

Archosauria: Dinosauria: Ornithischia:

Iguanodontidae

Iguanodon fittoni Lydekker, 1888 BMNHR1627

Iguanodon sp. HASTMEJB3

Interpretation

The turtle remains noted by Allen (1949) have not been further described. *Goniopholis* is represented by a partial mandible and *Suchosaurus* by a tooth: these were aquatic genera. *Goniopholis* had a long-snouted skull up to 0.7 m long.

Iguanodon, one of the commonest Wealden reptiles and the commonest dinosaur, is represented by a phalanx (*Iguanodon* sp.) and a partial skeleton (ascribed to *I. dawsoni* by Lydekker, 1890b). This specimen, consisting of a partial pelvis, several dorsal and caudal vertebrae, a partial hindlimb and other elements, apparently differed from other species of *Iguanodon* on the basis of characters of the pelvis in particular. D.B. Norman (pers. comm., 1983) considers that BMNH R1627 belongs to *I. fittoni* and differs from *I. dawsoni*, two species accepted provisionally by Norman and Weishampel (1990) as valid (see Hastings report).

Comparison with other localities

The Brede Bone Bed was noted by Allen (1949, p. 276) at St Leonards-on-Sea ([TQ 7982 0885]; ?Cliff End Bone Bed, Lake and Shephard-Thorn, 1987, p. 39), Stubb Lane, Brede ([TQ 8217 1853]; Lake and Shephard-Thorn, 1987, p. 37), Ludley Hill, Beckley [TQ 85 21], and possibly also Oxenbridge Hill, Iden (?[TQ 92 25]). Allen (1949, p. 280) noted a bone bed supposedly equivalent to the Telham Bone Bed at Reyson's Farm [TQ 832 192]

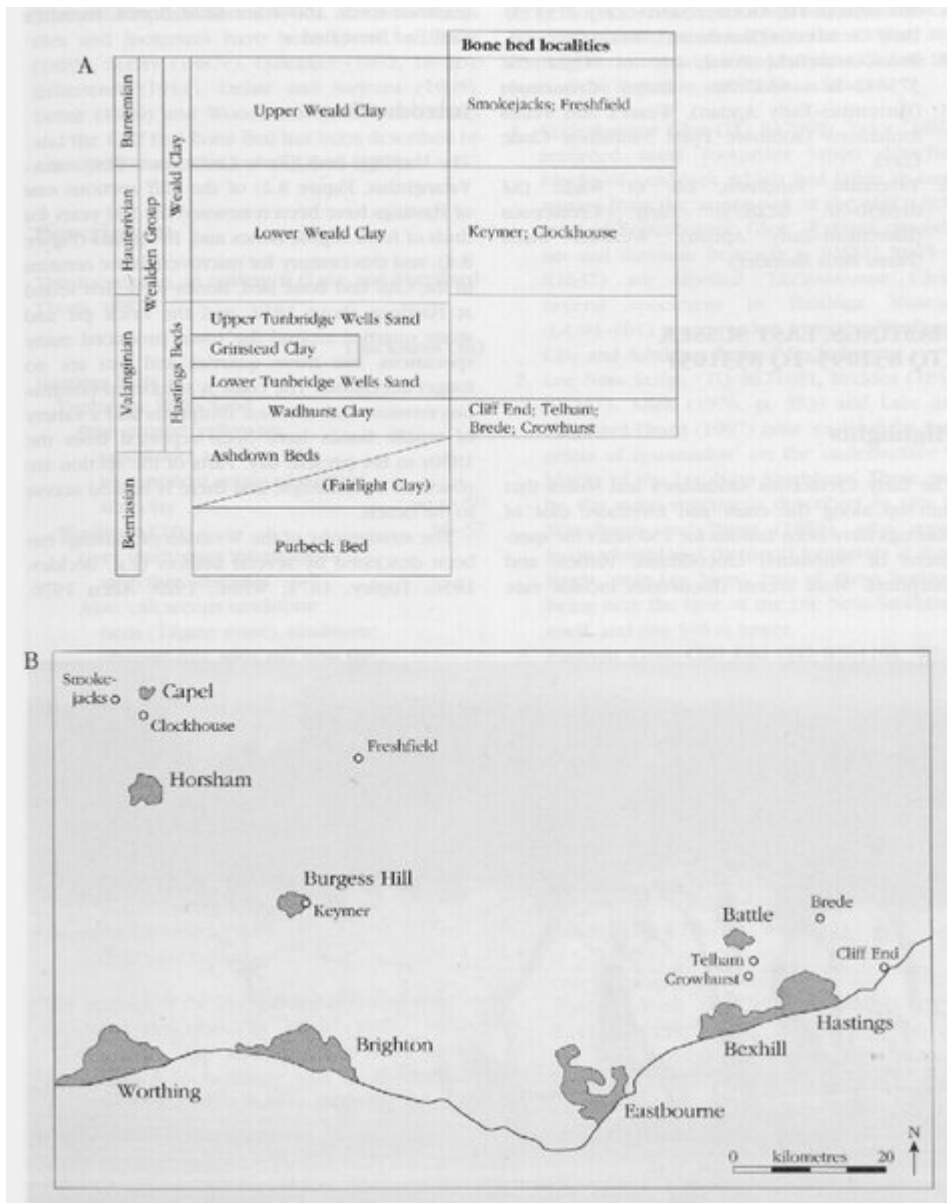
Conclusions

Hare Farm Lane is the type locality of the Brede Bone Bed. The fauna reported to date is small. Earlier dinosaur finds from Brede, including a good specimen of *Iguanodon fittoni*, point to the potential of this site and that it is a key Wealden bone bed site, hence its conservation value.

[References](#)

| System | Stage | Ma | Wessex and Isle of Wight | Weald | |
|-------------------|--------------|------------------|--|---|------------------|
| Palaeogene | Danian | | | Absent | |
| | | 65 | | | |
| Cretaceous | Late | Maastrichtian | | | |
| | | | 72 | | |
| | | Senonian | Campanian | | Upper Chalk |
| | | | Santonian | 83 | |
| | | | Coniacian | 86 | |
| | | Turonian | 88 | Chalk Rock | |
| | | 91 | Middle Chalk | | |
| | Cenomanian | | Melbourn Rock Plenus Marls Grey Chalk Chalk Marl Glaucconitic Marl | | |
| | | 95 | Upper Greensand | Gault | |
| | Albian | | | | |
| | | 107 | Lower Greensand | | |
| | Early | Neocomian | Barremian | Vectis Formation | Upper Weald Clay |
| | | | Hauterivian | ? | Lower Weald Clay |
| Valanginian | | | Wessex Formation | Upper Tunbridge Wells Sands Grinstead Clay Lower Tunbridge Wells Sands Wadhurst Clay | |
| | | 120 | Ashdown Beds | Upper | |
| Berriasian | | 128 | Purbeck Beds | Upper Middle Lower | |
| | | 135 | Portland Beds | ? | |
| Jurassic | Portlandian | | Portland Beds | Portland Beds | |

(Figure 8.2) Summary of Cretaceous stratigraphy, showing global stage nomenclature and some major southern British formations. Based on Harland et al. (1990).



(Figure 8.3) The Wealden of the Weald. (A) Summary stratigraphic succession, showing the relative temporal position of the bone beds; (B) map of some key Wealden reptile sites. Courtesy of E. Cook.