Wealden mammal sites

In 1881 the first Wealden mammal fossil from southern England was discovered, a tooth from 'Old Roar Quarry' near Hastings, which was found by Mr Charles Dawson and was later named *Plagiaulax dawsoni,* but in reality the specimen is indeterminate (see Clemens, 1963). A second tooth was described initially as being of a multituberculate mammal, despite its strong similarity to a rodent incisor (Lydekker, 1893). However, recent analysis of this material suggests that the tooth came from a Tertiary rodent (Clemens, 1963). In 1911 P. Teilhard de Chardin and F. Pelletier found three more teeth from the Hastings area; two belong to the multituberculate *Loxaulax* and the third tooth is indeterminate. The matrix in which they are embedded indicates that they have come from the Cliff End Bone Bed.

Further work in the 1960s marked the Weald as a significant area for Cretaceous mammals. Tighe Farm produced a number of terrestrial and aquatic vertebrates, including the dryolestid *Melanodon bodsoni* (Clemens and Lees, 1971). The Paddockhurst Park Bone Bed, near Turner's Hill, West Sussex, exposed a section of Grinstead Clay. The shelly limestone matrix (Taylor, 1963) contained a range of hybodont shark, bony fish, reptile and mammal teeth (Patterson, 1966; Clemens and Lees, 1971).

In summary, these Early Cretaceous mammal sites are:

WEST SUSSEX: Paddockhurst Park ([TQ 32 34]; therian premolar *?Aegialodon dawsoni, Spalacotherium taylori, ?Loxaulax valdensis;* Valanginian Grinstead Clay Formation; Clemens, 1963; Clemens and Lees, 1971).

EAST SUSSEX: Cliff End ([TQ 886 127]; Valanginian Wadhurst Clay Formation, Cliff End Bone Bed; Clemens and Lees, 1971). Tighe Farm ([TQ 936 266]; Valanginian Wadhurst Clay Formation, Telham Bone Bed, *Melanodon hodsoni;* Clemens and Lees, 1971; *Spalacotherium* sp.; Gill, 2004).

ISLE OF WIGHT: south-west coast, midway between Compton Grange Chine and Hanover Point ([SZ 377 840]; *Loxaulax;* Barremian Wessex Formation; Butler and Ford, 1977).

Of these sites, one is selected as a GCR site for fossil mammals:

Cliff End, East Sussex [TQ 886 127]. Early Cretaceous (Valanginian) Wadhurst Clay Formation, Cliff End Bone Bed.

References