## Middle Jurassic mammal sites

Fossil mammal sites of Middle Jurassic age are rare globally, although Great Britain has five well-documented sites of this age. Localities such as Stonesfield Slate Mines in Oxfordshire have been producing mammal fossils since the 19th century. Others, for example Kirtlington Old Cement Works, Oxfordshire, and Loch Scavaig, Skye, are more recent discoveries that have proved valuable sources of fossil materials and consequently have greatly increased our understanding of the evolutionary relationships of early mammals.

Most of Britain's Middle Jurassic mammal sites are limited to the sediments associated with the Bathonian marine regression, which were deposited under lagoonal, deltaic and swamp conditions (Evans and Milner, 1994). British Middle Jurassic mammal sites are listed below, county by county, based on published records.

DORSET: Watton Cliff (also known as 'West Cliff'), near West Bay (Bridport Harbour) [SY 451 908]–[SY 453 907]; haramiyidan tooth and tritylodontid tooth; Forest Marble Formation; Ensom, 1977; Clemens *et al.*, 1979; Evans and Milner, 1994); see GCR site report below. In the vicinity of Bothenhampton (the tritylodontid *Stereognathus;* Forest Marble Formation: Ensom *et al.*, 1994).

GLOUCESTERSHIRE: Hornsleasow Quarry (also known as 'Snowshill Quarry'), near Cheltenham [SP 131 322]; three orders of mammals, Docodonta, Eupantotheria and Multituberculata; clay lens in the Chipping Norton Limestone Formation; Metcalf *et al.*, 1992). Tarlton Clay Pit, near Cirencester ([SO 970 001]; one mammalian incisor, two fragments of molars, representing a docodontid and a triconodontid; Forest Marble Formation; Evans and Milner, 1994). Ready Token, near Cirencester ([SP 100 050]; one indeterminate mammalian incisor; Wychwood Beds, Forest Marble Formation; Evans and Milner, 1994).

OXFORDSHIRE: Wood eaton, near Oxford ([SP 534 122]; possible mammalian incisor; Hampen Marly Formation; Clemens *et al.*, 1979; Evans and Milner, 1994). Stonesfield Slate Mines, west of Woodstock ([SP 387 171]; *Amphilestes, Phascolotherium, Amphitherium;* Stonesfield Slate; Clemens *et al.*, 1979; Butler and Clemens, 2001); see GCR site report below. Kirtlington Old Cement Works ([SP 494 199]; see GCR site report for list; Freeman, 1979; Evans and Milner, 1994; Sigogneau-Russell, 2003a,b).

INNER HEBRIDES: Loch Scavaig, Skye and Lochalsh ([NG 519 165]; *Borealestes* and an unnamed 'pantothere'; Kilmaluag Formation; Evans and Milner, 1994; Waldman and Evans, 1994); see GCR site report below.

Of these, four are selected as GCR sites for fossil mammals:

- Stonesfield Slate Mines, Oxfordshire [SP 387 171]. Middle Jurassic (middle Bathonian) Stonesfield Slate facies, Taynton Limestone Formation.
- <u>Kirtlington Old Cement Works, Kirtlington, Oxfordshire</u> [SP 494 199]. Middle Jurassic (late Bathonian) White Limestone Formation to lower Cornbrash Formation.
- 3. Loch Scavaig, Skye and Lochalsh [NG 519 165]. Middle Jurassic (late Bathonian) Kilmaluag Formation.
- 4. Watton Cliff, Dorset [SY 453 908]. Middle Jurassic (late Bathonian) Forest Marble Formation.

## References