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On the Occurrence of the Scimitar-Toothed Cat, *Homotherium latidens* (Carnivora; Felidae), at Kents Cavern, England.

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Abstract.

Teeth of *Homotherium latidens* recovered from late Pleistocene sediments, Kents Cavern, England have long been the source of controversy. *H. latidens* is conspicuously absent from other late Pleistocene cave deposits in Britain, and is widely thought to have been extirpated from the region during the isotope stage 10 glacial period. Here we present high spatial resolution analyses of fluorine and uranium uptake profiles in teeth of three species from the same cave. The *H. latidens* tooth is clearly distinguished from the unambiguously provenanced Late Pleistocene hyaena and Middle Pleistocene cave bear teeth. These results are consistent with the theory that the *H. latidens* teeth originated at an exogenous location, were probably transported to Kents Cavern as Palaeolithic trade goods, and were buried in Kents Cavern in Palaeolithic times.

Key Words: Quaternary, cave, palaeontology, fluorine, uranium, Palaeolithic.

1. Introduction.

Kents[1] Cavern, located on the southwest coast of England in a suburb of the town of Torquay (50.4677 N, 3.5028 W, Fig. 1), is arguably Britain's most significant "bone cave', yielding a record of humans and biota extending back to the mid-Pleistocene. The earliest excavations were begun by T. Northmore in 1824, and then taken up by the Rev. J. MacEnery in November 1825 (Kennard, 1945). Subsequently, very large scale excavations by William Pengelly were conducted over a 15 year period

[1] We follow the traditional spelling, "Kents", rather than the more grammatically correct "Kent's".