

The anatomy and relationships of *Eucamerotus foxi* (Dinosauria, Sauropoda) from the Early Cretaceous of England

Amy Campbell^{1*}, Paul Upchurch¹, Phillip Mannion²

¹ Department of Earth Sciences, University College London, UK

² Department of Earth Sciences and Engineering, Imperial College London, UK

*Corresponding author: amy.campbell.10@ucl.ac.uk

Eucamerotus foxi is a macronarian sauropod from the Wessex Formation (Early Cretaceous, Barremian) of the Isle of Wight. It is represented by NHMUK R2522, a partial dorsal neural arch, and differs from other known sauropods by the presence of a stout robust prezygaparapophyseal lamina (PRPL) which bifurcates distally. NHMUK R90 are a pair of dorsal vertebrae also from the Wessex Formation which have been designated as paratypes of *E. foxi*. Both NHMUK R2522 and NHMUK R90 have traditionally been regarded as either basal titanosauriformes or of brachiosaurid affinities. Here, phylogenetic analysis using the Lusotitan Standard Discrete Matrix recovered NHMUK R90 as a non-titanosaurian somphospondylan nested in a clade made up of ((*Tastavinsaurus* (*Chubutisaurus*, *Angolatitan*, NHMUK R90)) though Bremer support for this group was low. Analyses recovered *E. foxi* as a neosauropod of uncertain affinities with little resolution throughout the tree. NHMUK R90 is recognised as being distinct from *E. foxi* based on the lack of a robust distally bifurcated PRPL and is likely representative of a new sauropod taxon. *E. foxi* is here retained as a valid species of basal macronarian.