



## Talk Abstract

### **An unusual new neosauropod dinosaur from the Lower Cretaceous Hastings Beds Group of East Sussex, England**

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BMNH R2095 is a well-preserved partial mid-to-posterior dorsal vertebra from the Berriasian-Valanginian Hastings Beds Group of Ecclesbourne Glen, East Sussex, England. It was briefly described by Lydekker in 1893, but its importance was not then realised and it has subsequently been ignored.

This specimen's concave cotyle, large lateral pneumatic fossae, complex system of bony laminae and camerate internal structure show that it represents a neosauropod dinosaur. However, it differs from all other sauropods in the form of its neural arch, which is taller than the centrum, covers the entire dorsal surface of the centrum, slopes forward at approximately 22° relative to the vertical, and has its posterior border coincident with that of the cotyle. Also unique is the featureless lateral side of the arch, devoid of laminae; and the asymmetric neural canal, small and round posteriorly but large and teardrop-shaped anteriorly, containing arched supporting laminae.

The specimen cannot be referred to any existing sauropod genus, and represents a new genus and possibly a new “family”. Other sauropod remains from the Hastings Beds Group represent Titanosauria and Diplodocidae; R2095 brings to three the number of sauropod “families” represented in this group.

The specimen is 200mm long and 165mm in cotyle diameter, compared with 276mm and 292mm for corresponding vertebrae in *Diplodocus carnegii* CM 84. This suggests a rather small sauropod, perhaps 72% as long and 23% as heavy as *Diplodocus* (19m, 2800 kg).