

combined with postcranial data from a conspecific specimen (*R. thorntoni*) to construct the first full body skeletal reconstruction of this genus.

Diversity of sauropod dinosaurs from the Lower Cretaceous Wealden Supergroup of southern England

Michael P. Taylor

School of Earth and Environmental Sciences, University of Portsmouth, Portsmouth, UK

The Lower Cretaceous Wealden Supergroup of southern England has yielded many fragmentary specimens of sauropod dinosaurs. Wealden sauropod taxonomy is convoluted, with most genera erected on nondiagnostic specimens and most specimens having been referred at various times to many different genera.

To investigate the relationships of Wealden sauropods, I performed a cladistic analysis at the specimen level. I added seven new taxa to the matrix of Harris (2006), six based on dorsal vertebrae and one on appendicular material.

These specimens could be scored for an average of 16.6 characters, only 5% of the total of 331, and for this reason an initial analysis including all seven specimens was uninformative: all but one of the new taxa were in a polytomy at the base of Neosauropoda.

I then performed seven separate analyses, each including just one of the Wealden specimens. In these analyses, the specimens were recovered as representatives of many different groups: Diplodocinae, basal Flagellicaudata, Brachiosauridae, Titanosauria and basal Somphospondyli.

In a third approach, based on Reduced Consensus, the analysis containing all seven new taxa was subjected to seven separate sets of *a posteriori* deletions, each removing all but one of the new taxa. The positions of many of new taxa changed dramatically from the separate analyses: for example, one new taxon jumped from Somphospondyli to Diplodocimorpha while another moved in the opposite direction from Diplodocinae to Macronaria. Only one specimen remained secure under all these analyses: "*Pelorosaurus*" *becklesi* was consistently affirmed as a basal titanosaur, sister to *Malawisaurus*.

These results underscore the care that must be taken in analyzing fragmentary specimens, and show that initial results must not be taken at face value. Resolution will be improved by the addition to the matrix of further characters of the dorsal vertebrae. The presence of an unequivocal titanosaur in the Wealden is noteworthy.