A new diplodocoid sauropod dinosaur from the Upper Jurassic Morrison Formation of Montana, USA

Jerald D. Harris and Peter Dodson

A partial skeleton of a new sauropod dinosaur from the Upper Jurassic Morrison Formation (?Tithonian) of Montana is described. *Suuwassea emilieae* gen. et sp. nov. is diagnosed by numerous cranial, axial, and appendicular autapomorphies. The holotype consists of a premaxilla, partial maxilla, quadrate, braincase with partial skull roof, several partial and complete cranial and middle cervical, cranial dorsal, and caudal vertebrae, ribs, complete scapulocoracoid, humerus, partial tibia, complete fibula, calcaneus, and partial pes. It displays numerous synapomorphies of the Diplodocoidea, including characters of both the Diplodocidae (*Apatosaurus* + (*Diplodocus* + *Barosaurus*)) and Dicraeosauridae (*Dicraeosaurus* + *Amargasaurus*). Preliminary phylogenetic analysis indicates that *Suuwassea* is a diplodocoid more derived than rebbachisaurids but in a trichotomy with both the Diplodocidae and Dicraeosauridae. *Suuwassea* represents the first well-supported, North American, non-diplodocid representative of the Diplodocoidea and provides new insight into the origins of both the Diplodocidae and Dicraeosauridae.

Key words: Dinosauria, Diplodocoidea, Diplodocidae, Dicraeosauridae, paleobiogeography, phylogeny, Morrison Forma– tion, Jurassic.

Jerald D. Harris [jdharris@sas.upenn.edu], Department of Earth and
Environmental Science, University of Pennsylvania, 240 S. 33rd St.,
Philadelphia, PA 19104–6316, USA; Peter Dodson [dodsonp@vet.upenn.edu], School of Veterinary
Medicine, University of Pennsylvania, 3800 Spruce St., Philadelphia, PA 19104–6045, USA.