

to represent the same taxon as KUVP 1024 and confirms Bell's (1993) identification of the Kansas specimen as *Ectenosaurus*. Further, the Texas specimen supports Bell's (1993) suggestion that KUVP 1024 may be a new species.

A PHYLOGENETIC ANALYSIS OF FHSM VP-13910; AN UPDATE ON THE MOSASAUR FORMERLY AND INFORMALLY IDENTIFIED AS *PLATECARPUS PLANIFRONS*

POLCYN, Michael, Department of Geological Sciences, Southern Methodist University, Dallas, TX, 75275, and EVERHART, Michael J., Sternberg Museum of Natural History, Fort Hays State University, Hays, Kansas 67601, USA.

Mosasaur remains discovered in 1997 and currently in the collections of the Sternberg Museum has been informally referred to as *Platecarpus planifrons* since 1998. The well-preserved specimen included a complete but disarticulated skull, vertebrae and ribs, and was collected from the Smoky Hill Chalk (lower Santonian) of Gove County, Kansas. Closer examination of the specimen and comparison with the type material of *P. planifrons* and other plioplatecarpine mosasaurs, however, does not support the earlier identification. The specimen was recently included in a phylogenetic analysis of plioplatecarpine mosasaurs. The results of this analysis suggests that FHSM VP-13910 is the sister taxon to a clade comprised of (*Angolasaurus* (*Platecarpus* + *Plioplatecarpus*)) and *Ectenosaurus* is the sister taxon of that clade. FHSM VP-13910 presents a unique mosaic of derived and plesiomorphic characters. In addition, the specimen also displays a number of autapomorphies defying referral to any known genus of mosasaur, and thus represents a new taxon within Plioplatecarpinae.

MORPHOLOGY AND SYSTEMATIC POSITION OF *ANGOLASAUROS BOCAGEI* AND THE EVOLUTION OF THE BRAINCASE IN PLIOPLATECARPINE MOSASAURS

POLCYN, Michael J., Department of Geological Sciences, Southern Methodist University, Dallas, TX, 75275, USA, JACOBS, Louis L., Department of Geological Sciences, Southern Methodist University, Dallas, TX, USA, 75275, SCHULP, Anne S., Natuurhistorisch Museum Maastricht, Maastricht, The Netherlands, MATEUS, Octávio, Museu da Lourinhã, Lourinhã, Portugal.

Recent field work in Angola has led to the discovery of new specimens of the Turonian mosasaur *Angolasaurus bocagei* providing new details of the anatomy of this taxon and allowing reassessment of its phylogenetic position. One of the new specimens was encased in a well-cemented sandstone and preserved in a fashion similar to the type specimen, but is significantly less crushed than the type. A second unprepared specimen includes an articulated skull and partial postcrania in a poorly-cemented sandstone matrix, and promises to be the best representative of this taxon known to date. The type specimen and one of the new specimens were CT scanned to study previously unavailable details of the internal surfaces and the skull and braincase. Additionally a series of braincase CT scans of Turonian through Campanian plioplatecarpine mosasaurs was performed for comparison and assessment of characters such as basilar artery path. Phylogenetic analysis supports a sister-taxon relationship to the clade *Platecarpus* + *Plioplatecarpus* but indicates that the ascription of *Angolasaurus bocagei* to the genus *Platecarpus* is unjustified.