

DINOSAUR AND TURTLES FROM THE TURONIAN OF IEMBE, ANGOLA

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The late Turonian fossil locality of Iembe, Angola (Tábi community, municipality of Ambriz, Bengo Province) preserves a vertebrate fauna that includes osteichthyes, chondrichthyes, mosasaurs, and plesiosaurs. The last collection of fossil vertebrates in this area was carried out in 1960 by Miguel Telles Antunes, who performed an extensive and systematic survey of the Cretaceous and Cenozoic fossil vertebrate fauna of Angola, reporting the results in Antunes (1961). This was followed by a monographic treatment in Antunes (1964) which included the description of two new mosasaurs: *Angolasaurus bocagei* and *Tylosaurus iembeensis*. More recent field work conducted in 2005 and 2006 (Jacobs et al. 2006) yielded a partial sauropod dinosaur and a eucryptodiran turtle, in addition to new specimens of mosasaurs and plesiosaurs.

The sauropod remains include the scapula, humerus, radius and the metatarsals I, III, and IV of the right forelimb. This Angolan sauropod does not bear Titanosauria synapomorphies, such as a prominent olecranon process of the ulna or the ulna and radius being extremely robust, and as such is classified as a non-titanosaur neosauropod. This discovery is the first dinosaur from Angola and is one of the very few sauropod occurrences in sub-Saharan Africa collected with good chronologic controls. The marginal marine sediments yielding the specimen are reported to be late Turonian in age and thus document a non-titanosaurian sauropod in sub-Saharan Africa at a time thought to be dominated by titanosaurian forms.

The eucryptodiran chelonian represents the oldest turtle from Angola and the oldest Cryptodira in Africa. Phylogenetic analysis reveals the Angolan specimen as the sister taxon of *Sandownia* from the Aptian of Isle of Wight, UK. All occurrences of basal eucryptodires are from the paleogeographical northern hemisphere, where the group appears to have originated. Thus this specimen represents one of the first marine amniote lineages to have invaded the South Atlantic after the separation of Africa and South America.

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Jacobs, L.L.; Mateus, O.; Polcyn, M.J.; Schulp, A.S.; Antunes, M.T.; Morais, M.L. & Tavares, T. 2006. The occurrence and geological setting of Cretaceous dinosaurs, mosasaurs, plesiosaurs, and turtles from Angola. *Journal of the Paleontological Society of Korea*, 22: 91-110.