

SPINOSAURID TEETH VARIATION IN MID-CRETACEOUS ALCÂNTARA FORMATION, MARANHÃO STATE, BRAZIL

MEDEIROS¹, M.A.

¹ Universidade Federal do Maranhão, Depto de Biologia, São Luís – MA.

Mid-Cretaceous rocks are well represented in the northern region of Maranhão State, Northeastern Brazil. Albian deposits crops out in the innermost areas (Grajaú Basin) and Eocenomanian strata of the Alcântara Formation are part of the sequences extensively found in the coastal cliffs of São Luís Basin. There, a vertebrate paleocommunity is well represented in the Laje do Coringa outcrop at Cajual Island, where a bonebed yielded thousands of fossils representative of dinosaurs, crocodiles, testudines and fishes along with petrified plants including conifers and giant ferns. Cretaceous sediments of both Grajaú and São Luís basins share, along more than two hundreds kilometers of outcropping areas, some vertebrate faunal elements (e. g.: carcharodontosaurids and spinosaurids among dinosaurs, and *Asiatoceratodus* among fishes) indicating that the vertebrate community remained similar in some degree along mid-Albian to Eocenomanian times. Informations about mid-Cretaceous fauna of Maranhão State are important to the knowledge of the Gondwanaland paleobiogeographic scenario during the South America - Africa fall apart. Vertebrate fossil debris have continuously been collected from Alcântara Formation as part of a research that aims to reconstruct paleoenvironmental aspects of that region during the Albian and Cenomanian. This work is also justified as an important insight on the Brazilian mid-Cretaceous vertebrate fauna since continental record of this episode is badly represented elsewhere in the Brazilian territory. Exhumation of vertebrate fossil material here described was made by usual techniques of picking and screening. The collected material, hundreds of spinosaurid teeth, was compared with published descriptions and illustrations. Results show remarkable variation in features as size, presence and number of longitudinal sub-facets on the crown surface, sharpness of the carenas and presence of wrinkles at the base of them. Such a degree of morphological diversity can hardly be considered as intraspecific variation and may indicate that more than one species of large size spinosaurids were present in the paleocommunity recorded in the Alcântara Formation. Morphological features here identified that are found in teeth of *Spinosaurus* and *Irritator* suggest that both genera may well have coexisted in northeastern Brazil. Financial support: UFMA, CPHNAMA.