

A NEW OUTCROP FROM THE CODÓ FORMATION (LOWER CRETACEOUS, PARNAÍBA BASIN), IN THE CENTER-EAST OF MARANHÃO STATE, NORTHEASTERN BRAZIL

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A fossil-rich sedimentary outcrop of the Codó Formation was recently discovered during an earthmoving work in Presidente Dutra municipality, center-east of Maranhão State, northeastern Brazil. The discovery of this limestone fossiliferous stratum was attested during an assessment made by researchers of Centro de Pesquisa de História Natural e Arqueologia do Maranhão (CPHNAMA) and the evaluation of some fossil specimens by researchers of Instituto Federal de Educação (IFMA) and Universidade Federal do Maranhão (UFMA). The Codó Formation has a wide distribution in the Parnaíba Basin, especially in the central-north of the Maranhão territory, cropping out in river banks of the watercourses that drain the sedimentary basin. It is documented in the cities of Brejo, Timbiras, Codó and Barra do Corda. The stratigraphic unit is also seen at the confluence of the Tocantins and Araguaia rivers, near the eastern border of the Amazon rainforest. A diversified biota recorded in the Codó Formation has systematically been studied: molluscs (bivalves and gastropods), crustaceans (shrimps and isopods), fishes and plants (Gnetales, conifers, Nymphaeales, Magnollids and/or basal Eudicots). The fish fauna are the most conspicuous elements in the Codó Formation. These deposits have been correlated to Santana and Riachuelo formations of the Araripe Basin. Sedimentary processes and biostratigraphic observations are very similar in these Lower Cretaceous sedimentary levels. One of the specimens collected in the new site has been attributed to *Dastilbe* sp. based on short, toothless jaws, not extending beyond anterior margin of the orbit, and an expanded opercle (one third of the head length). The dorsal fin opposed to the pelvic one observed in one of the specimens would represent a taphonomic artifact rather than a new character. The exposures of the Codó Formation are predominantly carbonatic, but also include shales and sandstones. In the Brejo municipality, studies on the biota have corroborated previous assumptions of an epicontinental seaway occurring on the equatorial margin of the Brazilian territory during the Aptian. A Tethys Ocean faunal influence has been postulated based on the Codó Formation fossiliferous record. A calm waters lagunar environment with incipient marine influence was probable in the northern region of the Maranhão State during the Early Cretaceous.

Keywords: CODÓ FORMATION, EARLY CRETACEOUS, PARNAÍBA BASIN