



Preliminary results on the vertebrate fauna of the Solimões Formation (upper Miocene), southwestern Amazonia, Acre, Brazil

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The Paleontology teams at the Universidade Federal do Acre (UFAC) and the Universidade de Brasília (UnB) worked together in order to increase macro and micropaleontological knowledge of the late Miocene rocks exposed at Niterói (10°08'30"S-67°48'46,3"W), on the right margin of the Acre river about 25km from the city of Rio Branco. The wide range of vertebrate fossils found during the latest expedition carried out on August 2009, are hosted at the Laboratório de Paleontologia (UFAC) and the Laboratório de Micropaleontologia (UnB). They consist of two mandible fragments (left and right) with retroarticular processes preserved, in addition to a nearly complete dorsal vertebrae and a piece of the axis identified as *Purussaurus brasiliensis* Barbosa Rodrigues. There is also material of non-identified crocodylians, including vertebrae, osteoderms, teeth, mandibles, carpal bones and a nearly complete radius. The presence of Testudine can be inferred by broken shells. Fish are represented by a fragmented cranium and vertebrae. Ground sloth remains include an astragalus and a sternum. A few possible coprolites were also found. Preliminary results confirm the diversity of vertebrate fossils from the late Miocene outcrops of the Solimões Formation and their association with water bodies. It is noticeable that gypsite aggregation occurs attached to the material collected. This indicates a high salinity sedimentary environment. However, the taxonomic groups found at the Niterói site belong to continental waters and there are no marine vertebrate fossils recorded at this locality to present, strengthening the idea that no marine transgression occurred at that time. Eight million years ago, Acre region was probably a hypersaline lagoon, very similar to the extant Pantanal of Mato Grosso, Brazil. Data still being analyzed and micropaleontological studies currently under way could possibly confirm or disprove the hypersaline lagoon hypothesis.

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