



Macromorphologic analysis of paleosols in the Campina Verde and Uberaba regions - Minas Gerais, Brazil

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The Bauru Basin is a Cretaceous inner basin with 370.000 square kilometers, situated inside the Parana's Basin and deposited on the basalt of the Serra Geral Formation. The Bauru Basin is characterized by its alluvial fans and different formations of Bauru and Caiuá Group, which according to Fernandes (1992), join to form the Bauru Basin, but according to Barcelos (1984), the Caiuá Formation fits in the same group of Bauru, and doesn't form another group apart. Among the Bauru Group formations (Adamantina, Araçatuba, Uberaba and Marília – Fernandes and Coimbra, 1996), this study focuses on the Marilia Formation, the last to be deposited and therefore, the one that occupies the highest part of the stratigraphic column of the Bauru Group. According to Suguio (1975), the Marilia Formation sedimentation has occurred in a restricted fogging, under torrential regimes of alluvial fans with deposition associated to detrital floors, during the progressive installation of a semi-arid environment, which has provided the carbonate cementing of its detritus and the development of the caliche and calcrete. This formation is divided into three members (Ponte Alta, Serra da Galga and Echaporã), and consists of coarse to conglomeratic sandstones with a large number of paleosols along its entire thickness. These paleosols are the research object of this study, which aims to study their macromorphology and search for information about the paleogeography and the evolution of the landscape of the Campina Verde and Uberaba regions (Minas Gerais - Brazil), when the pedogenesis of these profiles has developed, in other words, during the Upper Cretaceous (Maastrichtian). This study has resulted in descriptions and analyzes of four different outcrops that contribute to the study of paleosols in the region, whose main feature is the abundance of bioturbation, besides the existence of different levels of calcrete, nodules and carbonate cement, what are the clear evidence of lack of water during formation of the soil. Another feature that stands out was the great difference in particle sizes of base rocks between Uberaba and Campina Grande profiles, which tells us the source of these materials was located to the east of both outcrops.