

Relict tertiary sediments in Paty do Alferes Country, Mountainous Region of the State of Rio de Janeiro, Brazil

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This work was developed in the Ubá watershed, tributary of the Paraíba do Sul river, between latitudes of 22°16' and 22°30' S and longitudes of 43°16' and 43°30' WGr. One of the objectives was to identify geological substrata and their influence on soil development. In Brazil, the Tertiary sediments have been reported to occur on coastal plains alongside the sea shore or on inland sedimentary basins and they have narrow relationships with the geneses of Xantic Haplustox and/or Hapludox soil classes. The studied area has a mountainous physiography and these soils are, generally, distributed on both nearly level summits and moderately sloping shoulders of rolling topography. It is the first time "Serra do Mar" mountains that are reported very well preserved features of Tertiary sediments on mountainous landscape at two specific sites with 800 meters of elevation. They are small outcrops of 10 meters thick sandy clay texture layers pale in color associated with pebbles. At present the Fama sedimentary site occurs as quoin-like on a backslope over Pre-Cambrian gneisses and the Palmares sedimentary sequence site is over a diabase. We point out that these two outcrops constitute relict remnants of Tertiary sedimentation landscape over Pre-Cambrian rocks and they show an important approach about the sedimentation regime that the area had been submitted. This brings about important meanings and evidences on the studies of up lift of the whole mountainous chain after the sedimentation period.