

MAGNETOSTRATIGRAPHY AND SUSCEPTIBILITY VALUES IN LA JUANITA, ENTRE RÍOS, REPÚBLICA ARGENTINA

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A Pleistocene-Holocene sedimentary sequence is studied in the locality of La Juanita in the SW of Entre Ríos. Younger Holocene and upper Pleistocene loess and paleosols are laying discordantly on a greenish lacustrine facies belonging to La Juanita Formation which is laying on the intensively weathered silts of the Alvear Formation. Representative paleomagnetic samples were collected from each of the exposed layers with a distance of 20 to 30 cm between sampling levels. Paleomagnetic samples for alternate field demagnetization were collected in plastic boxes and samples for thermal demagnetization in hydrobronze cylinders. Mass susceptibility measurements were performed in the laboratory and field susceptibility measurements were carried out with a MS2 susceptometer. The magnetostratigraphic record obtained suggests a late Brunhes magnetic age for the upper 4,5 meters, integrated by the recent soil, the youngest loess and two superimposed Bt paleosols. There exists a chronostratigraphic gap between the base of the oldest Bt layer and the upper La Juanita Formation sampling levels which coincides with the polarity change Brunhes/Matuyama. Susceptibility values are five times higher in the youngest Holocene sediments than in sediments belonging to La Juanita and Alvear Formations. Intensive weathering affecting the last two Formations seems to have caused dissolution of magnetic minerals. The Bt interbedded layers of paleosols show intermediate values between La Juanita-Alvear Formations and the Youngest loess.