DISTAL TEPHRA LAYERS IN LATE CENOZOIC SEQUENCES FROM BUENOS AIRES PROVINCE, ARGENTINA

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Tephrostratigraphic studies in Late Cenozoic sedimentary sequences have carried out in the Pampa Interserrana Region. The volcanic ash layers were deposited in different geomorphologic environments and sedimentary units. They ages varies from Plio-Pleistocene to late Pleistocene/Holocene. The lower contact of tephra layers is sharp while the upper, due to bioturbation, is diffuse. The thickness varies between 0,07 m to 1,00 m, they are friable to weakly consolidated and their color range from white to light olive-gray. They show massive, sinsedimentary and tractional structures with lenticular geometry indicating a wet environment deposition.The small amount of detritic material suggests little removilitation. The ash layers are composed of well-sorted coarse silts with unimodal distribution, leptokurtic and positive skewness implying weighting toward the fine grains. These parameters match with a minimum 900 km distance from the Andean volcanic arc. The tephras are classified as vitroclastic with 90 % shards. The glass shards are platy, bubble-wall junction, and well-vesiculated equant to irregularly-shaped. Comagmatic sanidine, quartz, apatite, plagioclase, ortho and clinopyroxenes, hornblende, biotite, zircon and Fe-Ti oxides, were found. The major chemical elements show that the glass are hydrated, mostly high-silica, subaluminous rhyolitic and trachydacitic in composition. Tephras are useful as a tool for Cenozoic correlation and as an environmental indicator in the Pampas Region. The thickness in some layers probably was the consequence of local accumulation after a tephra fallout. The main cause for almost all the thin tephra layers to disappear would have been erosion and bioturbation.