Trace Fossils in the Cariri Formation, Araripe Plateau, Ceará, NE, Brazil

[1]ALBUQUERQUE, P.R.F. de, [1]SALES, A.M.F., [2]ANDRADE, J.A.F.G.de. [1]Instituto de Geociências, USP. Caixa Postal 11348, 05422-970, São Paulo, SP. Programa de Pós-Graduação em Geologia Sedimentar. paulorfa@usp.br, feitosa@usp.br. [2]Centro de Pesquisas Paleontológicas da Chapada do Araripe – CPCA/DNPM, 10°DS. Praça da Sé, 105. 63100-000, Crato, CE.

The Cariri Formation is made up of cross-bedded, coarse quartz sandstones, frequently cemented by silica. Many authors consider this unit as unfossiliferous but dinosaur footprints supposedly from this formation were reported in 1995 and now we describe invertebrate trace fossils which opens a new perspective in the paleontological research in the Araripe Plateau. Northwest of Missão Velha occurs an outcrop 80 m long, 50 m wide, and 15 m high of the Cariri Formation showing intense silicification. At the top of this exposure a 6-cm thick level of medium to coarse, very silicified, yellow sandstone crops out over a 30 m^2 area. The top of this level consists of finer brown sandstone with ichnofossils. A 270 cm^2 sample exhibited two kinds of trace fossils with concave epirelief: 1) 51 isolated or forked, smoothly curved traces, 10-15 mm long, 1-5 mm wide and 1-3 mm deep, occasionally crossing or intercepting each other; 2) 4 straight traces 30-60 mm long, 7-12 mm wide and 2-5 mm deep, isolated or in contact with the first trace. Both ichnofossils are probably dislocation traces (repichnia) of "worms", and resemble members of the ichnogenera *Planolites* and *Palaeophycus*. Weathering has removed practically all but faint signs of the original fillings of these traces impeding more precise identification. Despite this discovery, however, the age of the Cariri Formation remains uncertain, somewhere between the Precambrian age of the basement and the Cretaceous age of overlaying rocks.