

BIOSTRATIGRAPHY OF THE ARARIPE BASIN (NORTHEAST BRAZIL, SOUTH AMERICA) BASED ON MICROFOSSILS.

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Biostratigraphic studies based on ostracodes and palynology decisively contributed to identify the following chronostratigraphic units (Brazilian local stages) in the Araripe basin: Dom João stage (Jurassic? - lowermost Cretaceous?), Rio da Serra stage (Neocomian) and Alagoas stage (Aptian and Albo-aptian). Contrary to what is said in some previous works, the Araripe basin presents a significant hiatus between upper Neocomian and lower Aptian.

The Dom João age is based on ostracod assemblages characteristic of Bisulcocypris pricei biozone; the Rio da Serra age is based on ostracod assemblages characteristic of Cypridea candeensis and Paracypridea brasiliensis biozones; and the Alagoas age is based mostly on palynological assemblages (Sergipea variverrucata and Cicatricosisporites avnimelechi palinozones).

Identified biochronostratigraphic units are coherent with the polycyclical nature of sedimentation in the basin and its updated lithostratigraphic scheme, mutual relations being as follows: Dom João stage: Brejo Santo and Missão Velha Formations; Rio da Serra stage: Abaiara Formation; Alagoas stage (Aptian): Rio da Batateira Formation and Crato Member of the Santana Formation; Alagoas stage (Albo-Aptian): Santana Formation (Ipupi and Romualdo Members) and Arajara Formation.

This study could not propose datings for the Mauriti (=Cariri) and Exu formations - respectively basal and top units of the basin. These are barren in ostracodes and palynomorphs, and their ages remain still indeterminate.