

expansion and decline of the Ediacaran fauna and the later explosion of life in the Cambrian. This situation has been linked to changes in the composition of seawater and the installation of extensive carbonate platforms around the planet.

The Corumbá Group (Neoproterozoic-Cambrian) exhibits many of the same stratigraphic relationships as do other Neoproterozoic sequences of this age such as those in Namibia and South Africa (Damara Group), East Greenland and Svalbard (Polarisbreen Group), central Europe (Domo Extremeño Group), western Canada (Windermere Supergroup) and northern Siberia.

In Brazil, the Varangian glaciation was responsible for the Puga Formation and the iron-formation of the Jacadigo Group in the Urucum Massif. Resting on these glacial sediments, there are pink dolomites with tepee structures that mark the beginning of a significant transgression (Bocaina Formation) with more vigorous oceanic circulation and upwelling responsible for phosphogenetic processes.

A regressive event eroded the Bocaina platform and formed a slope breccia which contains clasts of limestone, chert and phosphorite. The subsequent transgression resulted in deposition of the Tamengo Formation (limestones and limestone-black shale rhythmities) with *Cloudina lucianoi* and *Corumbella weneri*. Increasing delta ^{13}C values, from negative to positive, are observed upwards in this unit, which may correlate with the Positive Ediacaran Excursion. — (30 de novembro de 1995).

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POSSIBLE ICHNOFOSSILS IN THE TERMINAL PROTEROZOIC CORUMBÁ GROUP, SERRA DA BODOQUENA, MATO GROSSO DO SUL, BRAZIL*

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Metazoan fossils suggestive of a latest Proterozoic age very close to the Cambrian limit are known from the

Corumbá Group near Corumbá, extreme western Mato Grosso do Sul, (MS) Brazil. Till now, no fossils attributable to invertebrates had ever been reported from this group in the Serra da Bodoquena, some 200 km SSE of Corumbá. We recently discovered possible ichnofossils associated with stromatolites, oncoids, and phosphatized microfossils from the Bocaina Formation, basal unit of the Corumbá Group, north of Bonito, MS.

The traces occur evenly distributed over both top and bottom halves of a single bedding plane exposure in a hand sample of dololutite. They consist of short, straight to rarely curved traces, 1-6 mm long and 0.4-0.9 mm across, parallel to lamination. The curvature of several traces and the intersection of others are suggestive of trails made by tiny worm-like animals. If this interpretation is correct, then those objects represent the oldest evidence of animal life in the Corumbá Group and in Brazil as well. However, until this hypothesis can be confirmed, it must be invoked cautiously in view of the small amount of material available for study. — (30 de novembro de 1995).

*Research partially funded by FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo).

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STROMATOLITIC REEFS OF THE BOCAINA FORMATION (CORUMBÁ GROUP – NEOPROTEROZOIC – CAMBRIAN) MATO GROSSO DO SUL, BRAZIL

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The Bocaina Formation, the essentially dolomitic basal unit of the Corumbá Group (Neoproterozoic-Cambrian), rests conformably upon glaciogenic sediments (e.g. Puga Formation) attributed to the Varanger glaciation. Pink dolomites with tepee structures locally mark this contact.