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 rhythmites) with *Cloudina lucianoi* and *Corumbella werneri*. 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*).

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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.

Within the Bocaina dolomites discontinuous stromatolitic bodies associated with intraformational breccias are observed in a band stretching 200 km NNW from Bonito to Corumbá (MS) that marks the limit of the craton on the west with the Paraguai fold belt to the east.

These stromatolites are best exposed in a deposit at least 300 m long and 6 m high, on the right bank of the Rio Paraguai at Porto Morrinhos, near Corumbá. Bulbous stromatolites 3 m across and 1 m high are capped by 1 m of pelitic sediments and these, in turn, by unbranched, straight stromatolites 3-10 cm wide and 2 m high exhibiting convex to planar laminae.

The associated intraformational breccias include granules to blocks of carbonates, chert, and phosphorite dispersed within a carbonate matrix.

The close association of the stromatolites with the intraformational breccias is interpreted as related to sedimentation at the edge of the platform. In this palaeogeographic context, the breccias would have been deposited at the break in slope to the east and the bulk of the carbonates on the platform to the west under more restricted and locally mildly evaporitic conditions. — (*30 de novembro de 1995*).

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ICHNOFOSSILS AND POSSIBLE IMPRESSIONS OF SOFT-BODIED ANIMALS IN THE RAIZAMA FORMATION (ALTO PARAGUAI GROUP, VENDIAN-CAMBRIAN), MATO GROSSO, BRAZIL*

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Ichnofossils are an important tool for identifying the Proterozoic/Phanerozoic limit. We report here the discovery of seven forms of ichnofossils and possible soft-bodied animal impressions in sandstones of the Raizama Formation, basal unit of the Vendian-Cambrian Alto Paraguay Group near Cáceres, Mato Grosso, Brazil.

The specimens of ichnofossils are morphologically simple and few in number but resemble the horizontal locomotion or feeding trails of the ichnogenera *Planolites* (two forms), *Palaeophycus*, and *Cochlichnus*, all beginning in the Vendian; a fourth ichnomorph may represent a resting mark while a fifth, similar to *Lockeia*, known from Ordovician and younger rocks, appears to be the habitation mark of a sessile fusiform animal.

Two dubiofossils, each known from unique specimens, possibly represent molds or impressions of soft-bodied animals. One consists of an oval impression about 2 × 1.5 cm with a minute central depression and four radially arranged tear-shaped depressions; this possibly is the sub-umbellar impression of a medusoid scyphozoan with four gonads. The other specimen is a slightly curved (incomplete) cylinder, about 6 cm long, tapering slightly at the extremities and marked by regular lateral corrugations, possibly representing the mold of an annelid.

The small number of known specimens and the occurrence of several of them within mud-cracked sediments demand that caution be exercised in their analysis. Confirmation of their biological origin would support tentative correlation of at least part of the Alto Paraguai Group with the upper part of the Tucavaca Group (E. Bolivia) which bears Early Cambrian ichnofossils. — (*30 de novembro de 1995*).

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AGES AND TYPOLOGY OF THE BRASILIANO GRANITIC MAGMATISM CLOSE TO THE PROTEROZOIC-PHANEROZOIC BOUNDARY, STATES OF SÃO PAULO AND PARANÁ, SE BRAZIL

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A variety of granitic, dioritic and syenitic rocks were formed during the late- to post-orogenic Brasiliano period in the States of São Paulo, Paraná and vicinities. They belong to the Itu and Serra do Mar provinces, which were generated within a narrow time span [600-580 (± 20) Ma], close to the Neoproterozoic-