

asiáticas possuem registros plio/pleistocênicos e recentes, enquanto a norte-americana, somente registro fóssil. O material do Brasil trata-se de uma nova espécie tendo em vista suas características particulares de contorno e ornamentação, além de detalhes internos, tornando-o distinto de qualquer outra espécie do gênero. Esta mesma espécie de *Robustaurila* foi registrada também na Baía de Sepetiba, Rio de Janeiro. O presente projeto, ainda em andamento, pretende descrever e ilustrar a nova espécie, bem como identificar os demais táxons em nível específico. Com base no levantamento completo da composição desta ostracofauna será possível também propor hipóteses de cunho zoo- e paleozoo geográfico. [CNPq 120525/2012-7]

## NEOPROTEROZOIC "TUBESTONES" ASSOCIATED WITH MICROBIALITES IN THE SOUTHERN PARAGUAY FOLD BELT: MARINOAN CAP CARBONATES?

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The Neoproterozoic was a time of singular biological and geological events, including the Marinoan Glaciation (End-Cryogenian, 635 Ma), globally recognized by deposits of diamictites overlain by cap carbonates bearing a highly unusual, apparently temporally restricted association of sedimentary structures. A typical structure, "tubestones", are now known from the southern Paraguay Belt (SW Brazil), in outcrops at Morraria do Sul (Serra da Bodoquena) and limited exposures at Forte Coimbra (Pantanal), Mato Grosso do Sul. In both outcrops, vertical tubular structures (1.5 to 3 cm across and tens of cm long) disrupt stratiform stromatolitic lamination of alternating peloid-rich and spar-rich laminae. As in stromatolitic tubestones of the Noonday Dolomite, Death Valley, USA, tubes at Morraria do Sul exhibit concave lamination, but at Forte Coimbra they are filled by homogeneous micrite, as in the microbialitic tubestone of the Mirassol D'Oeste Formation (Araras Group, Mato Grosso), in the northern Paraguay Belt. Stable isotope analyses yielded  $\delta^{13}\text{C}$  values of -1 to -7‰ and  $\delta^{18}\text{O}_{\text{V-PDB}}$  values of -3 to -7‰, typical of post-Marinoan cap carbonates. More negative  $\delta^{13}\text{C}$  values correspond to sediment within the tubes. The tubes possibly originated by escape of fluids related to decomposition of microbial mats or by microbial growth. Although both occurrences were originally assigned to the Bocaina Formation (Corumbá Group, latest Ediacaran), their sedimentary and isotopic features suggest that this is incorrect, a suggestion corroborated by recent radiometric dating placing the Bocaina Formation much closer to the end than to the beginning of the Ediacaran period. The tubestones' pink color resembles that of carbonates associated with the putatively glaciogenic Puga Formation, described from an isolated outcrop between Fort Coimbra and Corumbá. However, the glacial origin of the Puga Formation in the southern Paraguay Belt has been questioned, but not in the north, where it is overlain by the tubestone-bearing Mirassol D'Oeste Formation, an unquestionable post-Marinoan cap carbonate. Although not proof of *glacial* conditions in the south, the tubestone-microbialite facies suggest that *post-glacial* conditions at least were, indeed, present there. [FAPESP (10/02677-0) to P.C. Boggiani (IGc-USP); scholarships from FAPESP (EMS), CAPES (GRR, LPCM) and CNPq (PCB)]