FIRST RECORD OF A LOWER PALEOZOIC MACROINVERTEBRATE FAUNA DOMINATED BY CRINOIDS IN THE SERRA GRANDE GROUP (PARNAÍBA BASIN, NORTHERN BRAZIL): A PRELIMINARY DISCUSSION

DIAS-DA-SILVA, S.[1]; GAMA-JÚNIOR, J.M.[2]; ABREU, N.C.G.[3]

[1] Docente do Curso de Biologia da Universidade Federal do Tocantins; sergiosilva@uft.edu.br
[2] Acadêmico do Curso de Geografia da Universidade Federal do Tocantins; mendes.gama@bol.com.br
[3] Acadêmica do Curso de Biologia da Universidade Federal do Tocantins; ncbio@uft.edu.br

The crinoids are the only pelmatozoan echinoderms that survived until present days, ranging from the Ordovician to Holocene. They become diversified during the Lower Carboniferous, being the best represented echinoderms in the fossil record, mainly during Paleozoic times. By that time, they were widespread in Pangea and are amongst the most frequently encountered macroinvertebrates in marine deposits. Crinoids are usually preserved as fragments, corresponding to parts of stems. In Brazil, Paleozoic crinoids were previously recorded in the Itararé Subgroup (Carboniferous of Paraná Basin) and Itaituba Formation (Upper Carboniferous of Amazonas Basin). Also, *Botryocrinus doubleti* Clark is recorded from the Devonian of Paraná Basin; the genus *Erisocrinus* from the Upper Carboniferous of Amazonas Basin; the genera *Exaesyodiscus*, *Laudonomphalus* and *Monstrocrinus* from the Devonian of Amazonas Basin. We present here the first record of crinoids to the Serra Grande Group (Silurian of Parnaíba Basin) in the state of Tocantins, Brazil. Their occurrence is characterized mainly by scattered isolated stem discs and also by partially semi articulated stems. Roots and cirri that serve as a means of attachment to the sea bed are also present. Neither calyx nor arms were recorded so far. The fragmentary nature of this material and the early stage of the present study render taxonomic identification uncertain, so the material here presented is, at this moment, assigned as Crinoidea undetermined. A second macroinvertebrate group occurs associated with this crinoid assemblage, namely bivalve mollusks also of uncertain taxonomic identification. Nevertheless, they are extremely rare when compared with the abundant crinoids. This poorly diversified fauna is compatible with cold circumpolar palaeoclimates proposed for South American Gondwana during Silurian times. However, taphonomic bias also might have hidden other taxa that were not preserved in this depositional environment. Further efforts in prospection are needed in order to find more complete material that could help to understand the taxonomy, paleobiology and paleobiogeographic affinities of this interesting macroinvertebrate palaeocommunity from South American Gondwana.