

## TRIDIMENSIONAL OSTRACODA ASSEMBLAGE FROM VILA MARIA FORMATION, ORDOVICIAN/SILURIAN, PARANÁ BASIN BRAZIL

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The Rio Ivaí Group is attributed to the Upper Ordovician / Silurian interval, composed of three formations: Alto Garças, Iapó and Vila Maria. The Vila Maria Formation is composed of black shales at its base and sandstone at its top. The black shales have the most important fossil record of the Lower Paleozoic of the Paraná Basin. Little attention was given to the stratigraphic distribution, as well as the correlation studies of the fossil record on this formation so far. *Satiellina paranaensis* Adorno & Salas, 2016 and *Conchoprimitia brasiliensis* Adorno & Salas, 2016, are ostracod species that occur at the parastratotype section of the Vila Maria Formation, in the village stream, Bom Jardim de Goiás, State of Goiás, Central Brazil. These two species belong to genera that are restricted to the Ordovician, in all of the Gondwana basins (Africa, Europe and the Middle East). The present work records occurrences of four ostracod specimens in three additional species: *Hapabollia* *H. harparum*, Gen. 1 et sp. 1 and Gen. 2 et sp. 2. These new occurrences were recovered from Vila Maria Formation at Fazenda Três Barras, Bom Jardim de Goiás, 7 km distant from the parastratotype section of the Vila Maria Formation. Carapaces of this ostracod assemblage are all replaced by pyrite. Carapaces are complete, with both valves articulated and closed. They are well preserved, but some specimens show partial dissolution and deformation. In addition to these ostracods assemblages, it was possible to recover brachiopods, molluscs, palynomorphs, pyritized coprolites and other fossils. As final remarks, it is observed an increment of biodiversity among ostracod species recovered from Vila Maria Formation. This indicates that the outcrops at Fazenda Três Barras are very important for paleontological and geochronological studies. Mizusaki *et al.* (2002), related this section to Early Silurian. Nonetheless, when considering previous data on ostracods (Adôrno *et al.*, 2016), *Satiellina paranaensis* and *Conchoprimitia*, both suggest a late Ordovician age. The preliminary taxonomic study herein presented is under development and could bring new data to evaluate the biodiversity and dating of the Vila Maria Formation. New data can clarify the possibility of this section yielding the Ordovician/Silurian limits in South America.