



## Revision of the lower Permian bivalves from the Río Bonito Formation, Paraná Basin, Río Grande do Sul, Brazil

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Taxonomy of mollusks in lower Permian rocks of southern Brazil is relatively well established for the state of Santa Catarina, where they carry a diversified community of bivalves dominated by Pectinidae (*Heteropecten catharinae* Reed) accompanied by Trigoniidae (*Schizodus occidentalis* Reed), Pholadomyidae, Myoconchidae (*Stutchburia brasiliensis* Reed), Sanguinolitidae?, Crassatellidae (*Oriocrassatella itajaiensis* Rocha Campos), gastropods, brachiopods and echinoderms. However, in Río Grande do Sul only two forms of this group were previously known, *Aviculopecten cambahyensis* Martins and *Stutchburia* sp. New field collections were made in order to attempt testing diversity and taphonomic constrains in these more southern areas. Additionally, samples stored at UNISINOS Museum and collected also at Río Grande do Sul were studied. A total of 313 samples containing right and left valves were tabulated, measured and described. Analysis revealed the dominance -as in Santa Catarina- of disarticulated valves of pectinids (674 forms), represented by dominant *A. cambahyensis*, *Stutchburia* sp. (28 valves), and species of two genera not previously described for this region, i.e., *Schizodus* sp. (7 valves) and *Oriocrassatella* sp. (one form). The pectinids are dispersed throughout all the eleven meters thick pelitic succession with wavy lamination, but all other elements appear only in the uppermost three meters, accompanied by rare fragments of plants and suggesting an upward shallowing sequence. The basal and upper beds including broad cross-stratified sandstones suggest a deltaic context in a shallow nearshore environment. The lower diversity observed in the southern areas of the basin, where the absence of more typical marine forms is noteworthy, suggests the existence of more stressing conditions possibly linked to colder waters and a consequent low salinity.

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