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FIRST PALYNOLOGICAL AND PALEOBOTANICAL RECORDS OF THE UPPERMOST RIO BONITO FORMATION (LOWER PERMIAN, PARANÁ BASIN) IN ALFREDO WAGNER, SANTA CATARINA STATE, SOUTHERN BRAZIL

M. Rischbieter¹, R. Neregato², M.M. di Pasquo³, R. Iannuzzi² and R. Alvarenga^{2*}

¹Presbyterian College. 106 Lassiter Hall, Clinton, SC 29325, United States. miker@presby.edu

²Universidade Federal do Rio Grande do Sul. Av. Bento Gonçalves 9500, CEP 91501-970, Porto Alegre, Rio Grande do Sul, Brazil. rodrigoneregato@hotmail.com; roberto.iannuzzi@ufrgs.br; renatalvarenga@yahoo.com.br

³Laboratorio de Palinoestratigrafía y Paleobotánica, Centro de Investigaciones Científicas y Transferencia de Tecnología (CONICET-Entre Ríos-UADER). Materi y España s/n, E3105BWA, Diamante, Diamante, Entre Ríos, Argentina. medipa@cicytp.org.ar

This contribution deals with the paleofloristic and palynologic analysis of the Siderópolis Member of the Rio Bonito Formation at Alfredo Wagner. Materials were obtained from the upper part of this unit, composed of sandstones, shales and coals, interpreted as a coastal environment, formed by fluvio-deltaic-estuarine and shallow marine platform. The paleobotanical assemblage comprises organs and fragmentary plants, including two types of lycophyte stems, whorls of sphenophyllaleans, fern fronds, glossopterid and cordaitalean leaves, fructifications, seeds and possible bracts. Following standard methodologies, this investigation revealed a rich and well preserved microflora, with trilete spores comprising 51% of the assemblage representing 17 genera and 26 species, and pollen grains comprising 49% of the assemblage representing 15 genera and 25 species. Based on some diagnostic megaflora taxa (*Sphenophyllum* cf. *S. brasiliensis*, *Pecopteris pedrasica*, *Glossopteris* spp., *Cornucarpus patagonicus*, *Samaropsis* cf. *S. mendesii*, *Cheirophyllum* sp.) and the microfloral assemblage (*Horriditriletes curvibaculosus*, *Gondisporites serrulatus*, *Murospora bicingulata*, *Lophotriletes pseudoaculeatus*, *Protohaploxylinus rugatus*, *Vittatina costabilis*), the Siderópolis Member at Alfredo Wagner is biostratigraphically assigned to the Sakmarian–Artinskian and correlated to the basal *Glossopteris-Brasilodendron* floral stage and to the *Protohaploxylinus goraiensis* Subzone of the *Vittatina costabilis* Zone as proposed previously for the Paraná Basin. Curiously, the megaflora presents a mixture of taxa previously restricted to the underlying Itararé Group with other typically recovered in the Rio Bonito Formation, as well as taxa usually found in assemblages located to the north and to the south of the basin.

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