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Palynostratigraphy of the Pando X-1 Borehole between 1038 m and 729 m depth, northern Bolivia. María de las Mercedes di Pasquo CONICET-UBA, Argentina, *medipa@gl.fcen.uba.ar*

The palynostratigraphic analysis of thirteen core samples obtained from the 1038 m to 729 m depth of the Pando X-1 Borehole (11°36'07" S, 67°56'45" W), northern Bolivia, is documented for the first time. Broadly, the three assemblages defined, are composed of abundant and diverse spores and/or pollen grains and microplankton species, fairly well preserved, light yellow to light brown in colour. Pyritization is also recognized in many samples.

The palynoassemblage 1 (P1), composed of three samples between 1035-1038 m to 972-975 m, yielded several diagnostic species of the Mag Zone (Late Viséan) Melo and Loboziak (2003). Among them, *Schopfipollenitesellipsoides* appears in the upper BAFC-PI 1522 level while *Foveosporites pellucidus*

Cordylosporites magnidictyus and many species of *Verrucosisporites*, *Cristatisporites Vallatisporites*, *Punctatisporites* and *Leiotriletes* are recorded from the lowest one BAFC-PI 1524. Palynoassemblages 2 and 3 (P2, P3) are obtained from ten samples between 867-729 m depth. They yielded 48 species of which six are spores and among the pollen grains, 21 are monosaccate and 19 bisaccate (11 striate species) and scarce scolecodonts and microforams are also present.

The P2 (867 m to 756 m depth) is dominated by amorphous organic matter and few monosaccate pollen grains and spores. The P3 (741 m to 729 m depth) is recognized on the basis of the appearance of diverse striate pollen grains; tracheids and brown and charcoal phytoclasts are dominant while spores, scolecodonts and microforams are less frequent.

Many of the species recognized are known from Pennsylvanian and Permian palynofloras elsewhere in Gondwana and Euramerica. Nevertheless, exclusive species of the Pennsylvanian microfloras from South America are *Cristatisporites spinosus*, *Apiculiretusispora alonsoi*, *Apiculatasporites parviapiculatus*, *Costatacycclus crenatus*, *Limitisporites scitululus*, *Lunatisporites onerosus* and *Lahirites segmentatus* (e.g., Playford and Dino, 2000 a, b; Césari and Gutierrez, 2001; di Pasquo, 2003). A close comparison with the Amazon Basin supports a Bashkirian-Moscovian age for this assemblage (see Playford and Dino, 2000 b), which is more or less in agreement with the Bashkirian age attributed to this interval by Mamet and Isaacson (1997) based on calcareous microfossils. The Permian range of *Florinites eremus*, *Cannanoropollissingrauliensis*, *Striatopodocarpites solitus*, *S. antiquus*, *S. gondwanensis* and *Protohaploxypinus bharadwajii* registered in the P3 are here extended to the Pennsylvanian.