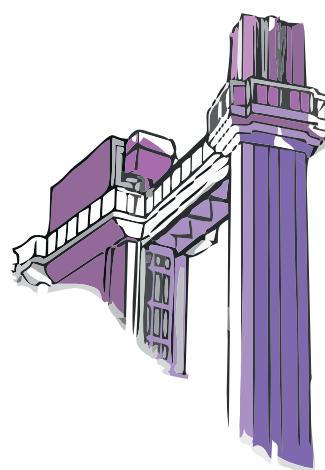


Boletín de la Asociación Latinoamericana de Paleobotánica y Palinología

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XIV IPC
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*Palaeobotany and Palynology:
towards new frontiers*

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**XIV International Palynological Congress
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Pennsylvanian *Ginkgophyllum* of the interglacial taphoflora of Monte Mor, Itararé Group, São Paulo State, Brazil: the earliest of the Paraná Basin

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The ginkgoaleans, typical deciduous gymnosperms of cold temperate climates, have their earliest South American record in the Argentinean Serpukhovian *Nothorhacopteris-Botrychiopsis-Ginkgophyllum* Phytozone (NBG) of the Paganzo and Callingasta-Uspallata basins. In Brazil, their oldest occurrence is in the *Paranocladus-Ginkgophyllum-Brasilodendron* Association (PGB), Kasimovian to Gzhelian (*Crucisaccites monoletus* Palynozone), of the middle part of the Itararé Group, Northeastern Paraná Basin. This Group is a complex association of facies composed of diamictites overlying striated pavements, rhythmites with dropstones at different stratigraphic levels, intercalated by sand bodies and shales deposited in fluvial, deltaic and marine environments under glacial or interglacial phases. The Pre-Glossopterid macroflora from Volpe Ranch, in Monte Mor (SP), is deposited in this context during an interglacial phase and characterizes the PGB Association. It is macrofloristically similar to the Argentine association *Krausecladus-Asterotheca* Phytozone (KA = previous Interval Zone) which overlies the NBG Phytozone. The ginkgoalean plants in the Monte Mor taphoflora are represented by leaf impressions and compressions of *Ginkgophyllum cf. G. diazzi* Archangelsky & Arrondo *emend.* Archangelsky & Leguizamón 1980; *Ginkgophyllum cf. G. kidstonii* (Seward) *emend.* Anderson & Anderson 1985 and (?) *Ginkgophyllum spathulifolia* Anderson & Anderson 1985. The association of *Ginkgophyllum* and Conifers in this taphoflora corresponds to a meso-xerophytic tree community. These remains are very fragmented in the assemblage suggesting allochthonous origin for them. This *Ginkgophyllum* occurrence despite being the oldest in the Paraná Basin is younger to the Argentinean *Florizone NBG* (Serpukhovian) from the Paganzo Basin - Trampeadero, Malanzán, La Rioja, Tupe, Jejenes and Agua Colorada Formations, where it has in common the species *Ginkgophyllum cf. G. diazzi* Archangelsky & Arrondo *emend.* Archangelsky & Leguizamón 1980. But in Monte Mor taphoflora the association of this species with the South African species *Ginkgophyllum cf. G. kidstonii* (Seward) *emend.* Anderson & Anderson 1985 and (?) *Ginkgophyllum spathulifolia* Anderson & Anderson 1985, occurring in the younger Vryheid Formation (Middle Ecca, Lower Permian of the north Karoo Basin) suggests a transitional geographic and stratigraphic position for the PGB Association of Monte Mor. [CNPq 304978/2013-2, MECBO; CNPq-300578/2015-6, PSK].

Keywords: *Paranocladus-Ginkgophyllum-Brasilodendron* Association; Kasimovian to Gzhelian flora.

Georeferencing petrified forests in the eastern margin of the Parnaíba Basin, Lower Permian (Pedra de Fogo Formation)

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Petrified plant-bearing outcrops of lower Permian strata of the Pedra de Fogo Formation located in the eastern margin of the Parnaíba Sedimentary Basin, are still poorly studied and/or known despite of the abundance of these fossiliferous exposures. The Pedra de Fogo Formation is characterized by rocks with predominance of silicified sandstone and siltstone, abundant layers of chert and limestone, and an abundance of fossil plant associations, especially gymnosperm logs, and also microbialites (oolids, pisoids, bacterial mats and stromatolites). This work aimed the prospection and preliminary analysis of outcrops in the aforementioned margin of the basin. Deposits with fossil plants under consideration are located in the municipalities of Teresina, Monsenhor Gil, Nazária and Altos, in Piauí state; and Duque Bacelar and Coelho Neto, in Maranhão state. The outcrops in Teresina and Altos are dominated by assemblages formed mostly by large gymnosperm woods (over 70 specimens), a number of them being found in life-position. Tree-ferns (petrified fronds and stems) were found in Monsenhor Gil and Nazária. In the Duque Bacelar and Coelho