

ADVANCES ON THE CARBONIFEROUS PARANÁ BASIN PALYNOSTRATIGRAPHY
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Palynology has been the most important tool in the biostratigraphy of the Upper Palaeozoic of the Paraná Basin, involving the Tubarão and Passa Dois groups. These units are related to different sedimentary processes, associated to a transgressive (Upper Carboniferous to Lower Permian) and a regressive (Lower to Upper Permian) phases. According to the traditional palynological scheme, Carboniferous strata were considered to be restricted to the Stephanian C in age, corresponding to the informal G interval. The inaccurate systematic treatment and local chronostratigraphical establishment, which resulted from the absence of a standard chronostratigraphical column index fossil, have attributed an imprecise character to this zonation. Recent researches have revealed older Carboniferous palynological assemblages in the northern portion of the Paraná basin. The evidences are from the Northeastern Paraná and Southern São Paulo states, based on surface and subsurface samples of the Itararé Subgroup (base of the Tubarão Group), unit related to the Gondwana late Palaeozoic glaciation. At least, two Carboniferous palynozones are suggested for the Paraná Basin. The most important species recorded in these Carboniferous strata are: *Anapiculatisporites argentinensis*, *Foveosporites hortonensis*, *Granulatisporites varigranifer*, *Raistrickia densa*, *R. rotunda*, *R. paganciana*, *Stenozonotriletes clarus*, *S. perforatus*, *Cristatisporites inordinatus*, *C. menendezii*, *C. spinosus*, *Ahrensisporites cristatus* and *Psomospora detecta*. *Potonieisporites*, *Plicatipollenites*, *Cannanoropollis* and *Caheniasaccites* are the most common genera of monosaccate pollen grains. Striated ones like *Protohaploxypinus* and *Striomonosaccites* are rare. These taxa are very common in Argentinean and Australian Carboniferous assemblages.