

THE PERMIAN AGE OF THE PASSA DOIS GROUP (PARANÁ BASIN, SOUTHERN BRAZIL) RE-AFFIRMED

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The Passa Dois Group of the Paraná Basin subdivides into the Irati, Serra Alta, Teresina and Rio do Rasto Formations. These units record the transition from a probably Sakmarian/Artinskian large shallow restricted sea to a Tatarian drying lake and a climatic shift towards increasingly arid conditions. Recently much younger ages, based in part on palynostratigraphy, were published for this interval and assumed the top of the Passa Dois Group to be Late Triassic. We therefore find it necessary to reinforce that many fossil plants, leaf and conchostracans and tetrapods of the Rio do Rasto Formation indicate a pre-Triassic age, as already described in previous papers. Further evidence is now provided by the correlation between the lower Rio do Rasto Formation (Serrinha Member) and the Gai-As Formation in Namibia on the basis of lacustrine bivalves such as *Leinzia similis*. Ages of 265 ± 2.5 Ma were determined by SHRIMP-dating of zircon separates from fallout tuff beds interlayered with the top part of the Gai-As Formation. Similar ages were revealed by radiometric dating of tuffs around the *Cistecephalus* zone of the Karoo Basin in South Africa, a biozone traditionally related to the middle Tatarian and a correlative of a tetrapod-bearing unit in the Brazilian Rio do Rasto Formation. There only remains some age uncertainty for the uppermost part of this unit because of scarce paleontological data and a lack of surface outcrops. Detailed new palynological investigations in the Paraná Basin and re-examination of rare other problematic fossils (also in Namibia) are expected to reduce this age discrepancies in the near future.