

Conchostracan genus *Gabonestheria* and the South American–African ligature

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During August 1978, I carried out fieldwork in the outcrop belt of the Rio do Rasto Formation (Upper Permian), Brazil, aided by colleagues from the Federal University of Paraná, Curitiba. Reported here are our main results obtained at the São Pascoal locality, about 365 kilometers southwest of Curitiba.

A new fossil conchostracan species of the genus *Gabonestheria*, not previously recorded in South America, was found in successive vertical collections (figures 1 and 2), from the red shale facies at São Pascoal, along with *Cyzicus* sp. The significance of this find resides in the closeness of the new species to *Gabonestheria gabonensis* (Marlière) from Gabon, Equatorial Africa; Marlière's species occurs in the upper Lower Permian. The data suggest an Equatorial African origin for the Brazilian gabonestheriids. This is further supported by the general acceptance of a South America–Africa ligature into the Cretaceous (Emery et al, 1975).



Figure 1. Conchostracan-bearing bed, Rio do Rasto Formation at São Pascoal, Brazil. Gabonestheriids occur in (from older to younger) beds 3 through 7A. Professor Azevedo (left) and a graduate student who aided the author in the field are from the Federal University of Paraná.



Figure 2. Conchostracan *Gabonestheria* n. sp., bed 3. Length: 2.3 millimeters.

It is useful to also consider another aspect of the Rio do Rasto conchostracan-bearing beds. The São Pascoal gabonestheriids occur in the lower Rio do Rasto, while at the Poço Preto locality (north Santa Catarina), the middle Rio do Rasto is exposed along a railroad. Among other conchostracans, *Leaia pruvosti* Reed occurs here (Mendes, 1954; Reed, 1929). This leaiid was shown to be a correlate of leaiids in the Mount Glossopteris Formation, Mercer Ridge, Ohio Range, Antarctica (Tasch, 1967). Accordingly, for two different subdivisions of the Rio do Rasto Formation, we now have evidence of conchostracan dispersal to and/or between other Gondwana continents: Africa–Brazil (lower Rio do Rasto time); Brazil–Antarctica (middle Rio do Rasto time).

This project has been supported by National Science Foundation grant DPP 79-09015.

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