

(mainly pectinids) filter-feeding forms together with elements of the filter-feeding, byssate semi-infauna and shallow infauna. Locally, in low oxygen and organic-rich environments, little diversified faunas mostly of infaunal shallow-burrowing, detritivorous taxa dominate. The transgressive phase seems to have favoured migration of cosmopolitan genera (middle part of the Itararé Subgroup; Rio Bonito and Palermo Formations) into the Paraná Basin. These assemblages are mostly composed of semi-infaunal shallow-burrowing, filter-feeding, and semi-infaunal byssate elements, but epifaunal filter-feeding shells may locally form large populations. It seems that improved environmental conditions during the transgressive phase facilitated the development of epifaunal taxa, normally more sensitive (stenoeious) to variations in the habitat. An opposite pattern is shown by assemblages of the regressive phase (Passa Dois Goup), which is characterized by high environmental stress, adaptative intrabasinally.

NOTA DE S. MEZZALIRA: Embora os autores não façam referência explícita ao Estado de São Paulo, o trabalho abrange em caráter geral e indistintamente os estados do Paraná e de São Paulo.

262 SIMÕES, M.G.; ROCHA-CAMPOS, A.C. & ANELLI, L.E. 1998. Paleocology and evolution of Permian bivalve faunas (Paraná Basin) in Brazil. *In*: P.A. Johnston; J.W. Haggart (eds.) Bivalves. AN EON OF EVOLUTION PALEOBIOLOGICAL STUDIES HONORING NORMAN D. NEWELL. 1ª edição, Calgary, Canadá, University of Calgary Press, p. 443-452.
IGCE-UNESP/Botucatu

*Late Paleozoic marine invertebrate assemblages (Tubarão and Passa Dois groups) in the Paraná Basin are dominated by bivalves. These evolved in an epicontinental sea with a complex geological and ecological history associated with a major transgressive/regressive cycle. Tubarão Group assemblages (transgressive phase) are more diverse, with bivalves, subordinate brachiopods, gastropods, echinoderms, and rare arenaceous forams. In the Tubarão Group, the Rio do Sul Formation assemblages (Rio da Areia, Baitaca) show a high proportion of epifaunal filter-feeders (mainly pectinids), together with some byssate semi- and shallow infauna. Locally, in an organic-rich substrate (Passinho assemblage), infaunal, deposit-feeding taxa dominate. Assemblages in the overlying Rio Bonito and Passinho

formations are mostly composed of infaunal filter-feeding and semi-infaunal byssate elements, but epifaunal shells dominate locally. A contrasting pattern is shown by Passa Dois Group assemblages (regressive phase), which are dominated by infaunal, shallow-, intermediate-, and deep-burrowing, filter-feeding bivalves associated with rare byssate epifauna. As a whole, these bivalves are thought to have evolved *in situ* from ancestors present in the Tubarão Group and in other late Paleozoic marine sequences in South America. Their evolution may have resulted from environment restriction and interruption in larval dispersal, leading to allopatric speciation. Rare elements, however, show wide distribution in the Paraná Basin suggesting dispersal of planktotrophic larvae during a short-lived flooding episode within the predominantly regressive cycle.

NOTA DE S. MEZZALIRA: As assembléias de bivalves destacadas no texto são as de Capivari, Itaporanga e Hortolândia (Estado de São Paulo), Rio da Areia, Baitaca, Passinho e Mafra (região sul do Brasil), referíveis ao Subgrupo Itararé; as de Taió (região sul do Brasil) da Formação Rio Bonito e as de São Sepé (região sul do Brasil) da Formação Palermo. Todas estas citações pertencem ao Grupo Tubarão. Do Grupo Passa Dois são referidas a da Formação Irati, do Estado do Paraná; a de *Leinzia froesi*, da Formação Serra Alta, do Estado do Paraná; as de *Pinzonella illusa* e *P. neotropica*, das formações Terezina/Corumbataí, do Estado de São Paulo; a de *Leinzia similis* e a de *Paleomutella ? platinensis*, da Formação Rio do Rasto, do Estado do Paraná.

263 SIMÕES, M.G.; TORELLO, F. de F.; KOWALEWSKI, M.; KLEIN, C.; MELLO, L.H.C. de & GHILARDI, R.P. 1998. Are the obrution deposits the most precise and best resolved beds in event stratigraphy? Some Paleozoic examples from the Paraná Basin, Brazil. *In*: CONGRESSO BRASILEIRO DE GEOLOGIA, 40, SBG, 1998, Belo Horizonte, MG, *Anais*, p. 444. PCV/SP

*Obrution beds, accumulated through high energy events, contain assemblages of intact, benthic organisms typically preserved *in situ*. The beds are usually interpreted as well resolved fossil concentrations (with time-averaging of hours to days) that provide faithful records of original benthic communities. Microstratigraphic, sedimentologic and taphonomic