

Larger Foraminifera and the biostratigraphy of the Brazilian Cenozoic carbonatic platforms

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Oil wells drilled by PETROBRAS in all Brazilian marginal basins (Cassiporé Basin, in the north to Santos Basin, in the south) have recovered thick Cenozoic carbonate deposits accumulated in lagoonal to neritic settings.

The biogenic elements of these carbonate complexes are constituted dominantly by larger foraminifera and calcareous algae. The foraminifera are represented by the families, Acervulinidae, Amphisteginidae, Asterocyclinidae, Asterigerinidae, Discocyclinidae, Lepidocyclinidae, Miogypsinidae, Nummulitidae, Planorbulinidae, Rotaliidae and Soritidae. The assemblages contain scarce microbentic calcareous and planktonic foraminifera, micromolluscs and ostracoda. The scarcity and/or absence of planktonic foraminifera, pollen and calcareous nannoplankton hinders the precise biostratigraphic studies of this shallow carbonate sequences. In these settings the biostratigraphic potential and resolution offered by the larger foraminifera was investigated.

In the studied Brazilian basins was observed an expressively homogeneous stratigraphic distribution in some groups of Cenozoic larger foraminifera. This regular distribution permitted to propose a biostratigraphic framework, applicable with success in all basins, based mainly on local last occurrences of some key genera. More detailed frameworks were carried out in some basins of the Brazilian equatorial margin, based mainly on species ranges. These ones are comparable to biozones previously established by larger foraminifera in other Atlantic areas.