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Deep-sea benthic foraminifera of Campos Basin, SE Brazil: Distribution, taxonomy and response to climatic and eustatic variations in the late Quaternary

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Deep-sea benthic foraminifera are particularly suitable for paleoecological and paleoceanographic investigation because they are cosmopolitan in distribution, occur commonly in marine sediments and have a high preservation potential. Numerous investigations have dealt with the effects of different environmental parameters on the benthic foraminiferal assemblages in an effort to explain their distribution patterns and ecological preferences. Nevertheless, a thorough study of modern assemblages is necessary to acquire a better understanding of the factors influencing the distribution of deep-sea benthic foraminifera, especially from poorly investigated regions such as the western South Atlantic Ocean.

This study presents the distribution patterns of deep-sea benthic foraminifera assemblages in the late Quaternary, recovered from piston cores #CAM257 (22°26'42"S. 38°56'17"W) and #CAM275 (22°33'48"S, 39°11'44"W) drilled in the lower continental slope of Campos Basin, in the southeastern Brazilian continental margin. Detailed geochemical studies ($\ddot{a}^{18}O$) carried out on *Orbulina universa* and *Cibicidoides wuellerstorfi* tests throughout the studied section allow inferences on ecological preferences relative to climatic and environmental conditions. The recorded main changes of foraminiferal distribution patterns are related to local and global climatic and eustatic variations during the late Quaternary (~150 Ka), as well as the paleoenvironmental imprint of glacial and interglacial intervals in the studied section