



## MIOCENE DEEP-SEA BENTHIC FORAMINIFERAL BIOSTRATIGRAPHY OF SOUTHEASTERN INDIAN OCEAN

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### ABSTRACT

The Miocene sections at ODP sites 754A (Broken Ridge) and 760A and 761B (Wombat Plateau) in the southeastern Indian Ocean were examined to understand the biostratigraphic significance of benthic foraminifera. Detailed benthic foraminiferal biochronology at each site is used to record the total stratigraphic ranges of taxa. Most of the benthic foraminiferal species recorded in the present study are long ranging and distributed throughout the studied section. However, some of them show their first and last appearances within the studied sections. On the basis of total stratigraphic ranges of significant taxa, seven distinct benthic foraminiferal zones have been proposed. The proposed biozones, in stratigraphic ascending order, are *Uvigerina proboscidea* Interval Zone, *Ehrenbergina praebicornis* Interval Zone, *Gavelinopsis lobatulus* Interval Zone, *Bulimina glomarchallengeri* – *Globocassidulina tumida* Concurrent Range Zone, *Buliminella grata spinosa* Interval Zone, *Uvigerina flintii* Interval Zone and *Bulimina macilenta* Interval Zone. The first appearances of *Uvigerina proboscidea* Schwager, *Ehrenbergina praebicornis* Rai and Srinivasan, *Gavelinopsis lobatulus* (Parr), *Globocassidulina tumida* (Heron-Allen and Earland) and the last appearances of *Bulimina glomarchallengeri* Tjalsma and Lohmann, *Buliminella grata spinosa* Parker and Bermudez, *Uvigerina flintii* Cushman and *Bulimina macilenta* Cushman and Parker are taken as zonal markers to define the zonal boundaries.

**Keywords:** Miocene, Benthic Foraminifera, Biostratigraphy, southeastern Indian Ocean