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One of the notable features of the Oligocene oceans was the appearance in Tethys of American lineages of larger benthic foraminifera, including the miogypsinids. They were reef-forming, and became very widespread and diverse, and so they play an important role in defining the Late Paleogene and Early Neogene biostratigraphy of the carbonates of the Mediterranean and the Indo-Pacific Tethyan sub-provinces. Until now, however, it has not been possible to develop an effective global view of the evolution of the miogypsinids, as the descriptions of specimens from Africa were rudimentary, and the stratigraphic ranges of genera of Tethyan forms appear to be highly dependent on palaeography. Our recent work, however, now enables a first systematic and biostratigraphic comparison of the miogypsinids from the Tethyan sub-provinces of the Mediterranean-West Africa and the Indo-Pacific, and can show for the first time that South Africa forms a new distinct bio-province. We infer that sea level, tectonic and climatic changes determined and constrained in turn the palaeogeographic distribution, evolution and eventual extinctions of the miogypsinid. The global sea level regressions in the Early Oligocene facilitated the trans-Atlantic migration of Neorotalia and miogypsinids from the Americas. This eastward migration followed two, distinct, unidirectional dispersals. One dispersal route was to the south towards South Africa, where a distinct phylogenetic lineage, similar to their American ancestors, was found in the Burdigalian. They became extinct together with their American ancestors, at the end of the Burdigalian; a time that coincided with a major global transgressions, circulation changes on closure of Panama and the major eruption of the Columbia River Flood basalts. The other route was to the north, through the Tethyan Mediterranean corridor. Our observations indicate that during the Chattian and Aquitanian significant miogypsinid forms evolved in the Mediterranean from the morphologically distinct Tethyan Neorotalia and migrated, within a few million years of their first appearance, eastward into the Indo-Pacific, where the tropical conditions and varied habitats enabled further local, less widespread forms to develop and diversify. The tectonically driven closure of the seaway between the Mediterranean and the Indo-Pacific in the Burdigalian, coupled with the other global events at this stage, triggered a crisis for the Mediterranean miogypsinids, which after a brief transgression and short-lived influx of Indo-Pacific fauna, led by their eventual extinction in the Langhian. Miogypsinids survived in the Indo-Pacific into the Serravallian, but progressive global cooling finally resulted in their total extinction from their last refuge at the end of this stage.