

## **New Research in Foraminiferal Biostratigraphy, Western Sirt Basin, Libya**

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Late Cretaceous and early Paleocene rocks in the western Sirt Basin have been the subject of micropaleontological research by the authors. Essentially, the focus of the research was two fold; (1) to provide the most precise biostratigraphy and correlation of the basin-fill, and (2) to contribute data for a comprehensive reconstruction of the basin bathymetry. Both of these aspects have been addressed in the western Sirt Basin study with the following main conclusions: (1) Upper Cretaceous rocks exposed on the western margin of the WSB represent the *Globotruncana aegyptiaca* and *Gansserina gansseri* foraminiferal Zones and are Upper Campanian and Lower Maastrichtian in age vs. a Maastrichtian age determined by other workers, (2) the latest Maastrichtian along the western margin of the Sirt Basin is represented by shallow marine to non-marine facies of the Lower Tar Member (i.e. the Socna Bed and its correlatives). These deposits contain no planktonic foraminifers and are characterized by breaks in sedimentation, (3) in contrast to surface rocks, the Upper Cretaceous strata in the subsurface show continuous sedimentation across the K/T boundary (evidenced by *Abathomphalus mayaroensis*) and contain a rich assemblage of pelagic foraminifers, and (4) the vertical succession of foraminiferal assemblages and facies within the Upper Cretaceous is consistent with the global regression curve at the end of the Cretaceous Period and, therefore, does not have to be explained in terms of local tectonically driven changes of the sea level, as previously thought.