Biostratigraphy and paleoecology of Qum Formation (Oligo-Miocene) of Kashan area, Iran

Mohammadreza Vaziri¹ & Azam Mahanipour²

¹Geology Department, Faculty of Sciences, Shahid Bahonar University of Kerman, Iran
²College of Geology, Shahid Beheshty University, Tehran, Iran,
amahani2002@yahoo.com

A detail study of Oligo-Miocene outcrops (Qum Formation) at Kashan area has been done and 4 sections at Ghamsar, Vidoj, Maragh and Niasar were logged in detail. Based on benthic foraminiferal analysis, the sections span the middle Oligocene to middle Miocene interval. The unique appearance of Nummulites fichteli in Ghamsar marks the Rupelian-Chattian?/Aquitanian boundary. Presence of Borelis melo curdica, Miogypsina globulus, Miogypsinooides sp., Lepidocyclina (Eulepidina) spp., in Niasar suggests the uppermost part of Qum Formation (Burdigalian). The two other sections, Vidoj and Maragh, comprise the lower Miocene strata (Aquitanian), although the presence of Borelis melo curdica in the lower part of Maragh suggests the age of Burdigalian for this part. The stage boundaries are not well clear from the viewpoint of lithological changes. The paleoecological analysis shows that a shallow, warm and oligotrophic condition has been prevailed during the deposition of the strata.