

3. Discussion and Conclusions

The post – Cretaceous transgression during Early Tertiary resulted in the deposition of the Niniyur Formation which is not only lithologically different from the underlying Kallamedu Formation (Upper Maastrichtian) but also paleontologically distinguishable. The Lower Tertiary sediments of Niniyur Formation recorded well preserved Planktic foraminiferal species viz *Globoanamalina pseudomenardii* (Bolli), *G. chapmani* (Parr), *Eoglobigerina spiralis* (Bolli), *A. mckannai* (White), *Morozovella praecursoria* (Morozova), *M. conicotruncata* (Subbotina) and *M. cf. trinidadensis* (Bolli). This assemblage stand out as important from the biostratigraphic and paleogeographic perspective. The occurrence of *Eoglobigerina spiralis* (Bolli), *Morozovella praecursoria* (Morozova), and *M. cf. trinidadensis* (Bolli) indicates Lower Paleocene age for the Adanakurchchi Limestone Member. *A. mckannai* (White), recorded from the Shelly Limestone Member confirms the middle to lower part of Upper Paleocene age (P3-P4) for the Shelly Limestone. *Globoanamalina pseudomenardii* (Bolli), *G. chapmani* (Parr), recorded from the Argillaceous Gritty nodular limestone member are of Upper Paleocene assemblage belonging to (P4 and P5 Zones) age.

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