



## ICHNOFOSSILS FROM THE NEOGENE-QUATERNARY SEDIMENTS OF THE PORBANDAR AREA, SAURASHTRA, GUJARAT, INDIA

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### ABSTRACT

The Neogene-Quaternary sediments are exposed in and around Porbandar area, Saurashtra, Gujarat. These sediments are classified into: Gaj Formation (early Miocene), Dwarka Formation (early to middle Miocene), Miliolite Formation (early middle to late Pleistocene) and Chaya Formation (late Pleistocene to late Holocene). Eight ichnofossils are recorded from the Dwarka Formation and the Adatiana Member of the Miliolite Formation. They are: *Granularia* ichnosp., *Ophiomorpha borneensis*, *O. irregulaire*, *O. nodosa*, *Palaeophycus heberti*, *P. tubularis*, *Planolites beverleyensis* and *P. montanus*. Out of the 8 species, 3 ichnospecies, namely, *Ophiomorpha irregulaire*, *O. nodosa* and *Planolites beverleyensis* occur in both the formations whereas 3 ichnospecies, namely, *Granularia* ichnosp., *Palaeophycus heberti* and *P. tubularis* occur exclusively in the Dwarka Formation and 2 ichnospecies *Ophiomorpha borneensis* and *Planolites montanus* occur exclusively in the Adatiana Member of the Miliolite Formation. The ichnospecies from the Dwarka Formation belong to *Skolithos* and *Cruziana* ichnofacies indicating that the Dwarka Formation was deposited in shallow marine water conditions. Dominance of *Ophiomorpha* burrows and their geometric relationship with the country rock clearly indicate that the Adatiana Member of the Miliolite Formation was deposited under near-shore environment.

**Keywords:** Ichnofossils, Dwarka, Miliolite and Chaya Formation, Porbandar, Gujarat