

**Exploring the Possibility of Paleocene-Eocene Thermal Maxima (PETM) events across the Paleogene succession in the Jaisalmer basin, Rajasthan, Western India.**

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The Paleogene, comprising the early part of Cenozoic Era, was the most dynamic period in the Earth's history with profound changes in the biosphere and geosphere. Close to the boundary between the Paleocene and Eocene epochs, approximately 55.5 Ma ago a distinct phase of global warming occurred, which has been called the **Paleocene–Eocene thermal maximum** (PETM) (Berggren et al. 1992) . The PETM has become a focal point of considerable geosciences research because it probably provides the best past analog by which one can understand impacts of present global warming and of massive carbon input to the ocean and atmosphere. The early Eocene hyperthermals sections have been recorded mostly from few high- latitude deep ocean sites and from terrestrial environment also but there is scarcity of shallow marine PETM section. The present investigated limestone was deposited in shallow marine environment at Paleocene-Eocene boundary in the Khuiala Formation of Jaisalmer basin, India. It shows remarkable similarity in respect of lithology and fossil content with other shallow marine limestones throughout the world where PETM signature has been reported. In view of that detail geochemical and isotopic study has been underway and it would be fruitful.

[1]Berggren et al. (1992) towards a revised Paleogene geochronology. Princeton University Press, Princeton, pp 29–45.