



EARLY PALAEOCENE OSTRACODA FROM THE CRETACEOUS - TERTIARY (K-T) DECCAN INTERTRAPPEAN SEQUENCE AT JHILMILI, DISTRICT CHHINDWARA, CENTRAL INDIA

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ABSTRACT

A taxonomically diverse ostracod fauna was recovered from a unique, recently discovered section of the Deccan intertrappean deposits at Jhilmili in central India (District Chhindwara, Madhya Pradesh), on the eastern fringe of the main Deccan volcanic province. This predominantly freshwater ostracod fauna was found in association with the recently described earliest Paleocene (P1a) planktic foraminifer assemblage that allows a precise link between the marine and terrestrial faunal records in the Deccan volcanic province. The Jhilmili ostracod fauna comprises seventeen species pertaining to twelve genera. Although bulk of the Jhilmili ostracod fauna (17 spp.) represents freshwater, lacustrine taxa, one abundant species (*Neocyprideis raoi*), indicates incursions of brackish/marine water from a nearby seaway. Furthermore, the striking similarity of these Palaeocene-aged freshwater ostracods from Jhilmili to latest Cretaceous (Maastrichtian) faunas known from several widely separated localities across the Deccan province, indicates limited influence of the Deccan volcanism, at least qualitatively, on contemporary freshwater aquatic ecosystems. Finally, the Jhilmili ostracod fauna shows that the extensive endemism encountered among the Indian Maastrichtian freshwater ostracods continued into the early Palaeocene, consistent with geophysical models that suggest an oceanically isolated Indian plate during Maastrichtian-Palaeocene.

Keywords: Ostracoda; Deccan intertrappean; India; Palaeocene; Cretaceous-Tertiary boundary