

## **INTERTRAPPEAN BEDS FROM MUMBAI (INDIA): THEIR LITHOFACIES, FAUNA, PALEOENVIRONMENT AND PALEOGEOGRAPHIC SIGNIFICANCE**

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The Deccan basalts at Mumbai contain intertrappeans that are different from their counterparts in other localities of peninsular India. The intertrappean beds at Malabar, Worli Hills and Amboli quarry are represented by the microfacies of vitric, lithic tuffs and black carbonaceous shale. The XRD analyses reveals the presence of chlorite-montmorillonite mixed layer clay. The faunal assemblage comprises ostracodes, frogs, turtle skull and shell, crocodilian tooth and eggshell fragments. Ostracodes are mostly deformed, their high density suggesting mass mortality. Frogs, represented by genus *Indobatrachus* are preserved in flat position in black carbonaceous shales without any disarticulation suggesting in-situ burial. Turtle skull and shell material, belonging to *Bothremydidae*(?) and *Pelomedusidae* respectively, have been recorded from intertrappean beds of Mumbai after a gap of nearly a century and half. Ostracode fauna is comparable with that from other intertrappean localities with a Late Cretaceous to Paleocene age. The study indicates alkaline, fresh-water to marshy environment of deposition and diversity of fauna with a unique mode of preservation. The vertebrate elements (*Leptodactylidae* and *Pelomedusidae*) with affinities to fauna from southern hemisphere represent the relics of undivided Gondwanaland. The ostracodes with Laurasiatic affinities suggest that Indian plate had collided with southern Asia while the intertrappean beds were being deposited.