

DOCUMENTING PALEOCENE-AGE DECCAN INTERTRAPPEAN MOLLUSKS, UTTAR PRADESH, INDIA

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The Deccan intertrappean Papro Locality (InL073) of Lalitpur (District), State of Uttar Pradesh, India, contains the only interpreted Paleocene intertrappean fossil record. Well-preserved specimens of charophytes from a silicified tuff in the Papro section were documented nearly three decades ago. Recent palynomorph studies indicate a Paleocene age for this important section on the eastern fringe of the main Deccan province. Silicified continental mollusks, reported as *Physa* and *Lymnaea*, from lithic units within the Papro section, have been noted but not discussed. This sole Paleocene record is in contrast to the relatively numerous, taxonomically diverse, and morphologically variable molluscan faunules from the end-Cretaceous (upper Maastrichtian) intertrappean beds.

The presently available small Papro micromollusk sample (<3.5 mm) can be compared to similarly sized mollusks from Maastrichtian intertrappean beds. Specimens collected for present studies from Takli Hill Locality (InL004b) of Nagpur, State of Maharashtra, occur in a 10- to 15-cm-thick unit between Traps 1 and 2, which is part of what has locally been referred to as the Takli Formation. The Takli Locality macrofaunule record (InL004) includes *Viviparus normalis*, Genus A *takliensis*, Genus B *rawesi*, Genus C *virapai*, "*Valvata*" *decollata*, and *Platyphysa prinsepii*. The Takli microfaunule (<5 mm) includes *Viviparus?* sp. 2, Genus B *pyramis?*, "*Valvata*" sp. 3, *Lymnaea spina*. In contrast, the Lalitpur microfaunule consists of two taxa: *Viviparus* sp. 1 and *Viviparus?* sp. 2. The previous identifications of *Physa* and *Lymnaea*, which could not be misidentified with *Viviparus*, indicates a Paleocene local fauna of both aquatic architaenioglossans and pulmonates. Potentially, at least some faunal elements crossed the Cretaceous/Paleocene boundary in this region, although better sampling at the Papro Locality is necessary to clarify diversity and taxonomy. Clearly, the Papro paleotaxa had managed to repopulate between basalt flows in a manner similar to temporally brief intertrappean faunules in the Maastrichtian, indicating refugia were relatively close. Although hard to interpret at this time, the indirect impact of volcanic activity on adjacent habit space appears limited in aquatic settings.

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