



# SOME ASPECTS OF THE PALAEOECOLOGY AND DISTRIBUTION OF NON-MARINE OSTRACODA FROM UPPER CRETACEOUS INTERTRAPPEAN DEPOSITS AND THE LAMETA FORMATION OF PENINSULAR INDIA

<sup>1</sup>ROBIN WHATLEY\* and <sup>2</sup>SUNIL BAJPAI\*

<sup>1</sup>MICROPALAEONTOLOGY RESEARCH UNIT, DEPARTMENT OF GEOLOGY, UNIVERSITY OF WALES, ABERYSTWYTH, UK

<sup>2</sup>DEPARTMENT OF EARTH SCIENCES, INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE, INDIA

## ABSTRACT

Ninety-two valid or possibly valid ostracod species from the Maastrichtian intertrappeans and the Lameta Formation are listed in the text and are evaluated in terms of their probable ecology. Some of the 24 communities are analysed in detail. Twenty-two of the 24 localities are grouped into 8 areas (Gujarat, SE Rajasthan, Madhya Pradesh, Maharashtra I- Nagpur District, Maharashtra II- Chandrapur District, Andhra Pradesh, Karnataka, Maharashtra III- Bombay). The degree of communality in terms of numbers of species is expressed diagrammatically and is shown to be little influenced by geographical distance. The relationship between palaeoenvironment and distribution is discussed and explanations involving communality of palaeoenvironment are advanced. Relatively few species are very widespread. These seem to be taxa that are rather environmentally tolerant and, with a notable exception, with good dispersal potential. A surprisingly large number of the 92 species (41 or 44%) are confined to a single locality. Two major groups of communities from different areas are evaluated in more detail. In one case it is thought that water chemistry may have been the controlling factor in the observed difference in the populations of three localities, while in the other, a difference in environmental energy levels is invoked. It is hoped that, with the exposition of some of the virtues that Ostracoda enjoy in environmental reconstruction, future workers make greater use of them for this purpose.

**Key words:** Non marine ostracods, Upper Cretaceous Intertrappeans, Lameta Formation, Palaeoecology, Distribution