

RECORD OF MICROBIOTA FROM THE PENGANGA FORMATION (PRE-CAMBRIAN), WARDHA VALLEY

This note records for the first time the presence of microbiota from the Penganga Formation (Precambrian), Wardha Valley. Microbiota has been obtained from a blackish-grey limestone collected from the beds exposed on the bank of Wardha river, S. E. of Usgaon village. For study all necessary precautions has been taken as recommended by PFLUG AND MAITHY (1977) to avoid contamination.

Only one type of microbiota referable to Acritarch was recovered. The form agrees morphologically to *Orygmato-sphaeridium plicatum* Maithy & Shukla (1977) reported from the Suket Shales of Ramapura, Semri Series, Vindhyan Supergroup. Vesicles spherical with irregular folds, 30-150 μm (common 40-70 μm) ; exine thin, surface pitted, pits small and closely arranged, intervening space in between pitted surface shows rugose structure. For SEM study specimens with minimum body folds were chosen. Under SEM the grain showed raised bulging structure in the middle region. The bulging portion is $\pm 3/4$ portion of entire specimen. Surface shows warty structure with occasional depressions (pitted structure). The warty structures are protruded irregularly.

The Penganga Formation of the Wardha Valley have been dated variously. HUGHES (1877) considered them to be Vindhyan in age. KING (1881) considered them to be equivalents of Pakhals. Pascoe (1950) placed them in Purana Group. In the present study, only one type of microbiota has been recorded. Therefore, it is difficult to compare with known diversified microbiota from Dharawars (VENKATACHALA, BHANDARI, CHAUBE & RAWAT, 1973) and Kurnools (SALUJHA & REHMAN, 1972). In view of same a critical assessment on the possible age and correlation of Penganga Formation in Precambrians is difficult at this moment. However, the report is significant, due to its first record of acritarchs from the Penganga beds.

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EXPLANATION OF PLATE—I

Orygmato-sphaeridium plicatum Maithy & Shukla

1-3 photographs in optical microscope showing the exine structure. (Slide no. 5896, Birbal Sahni Institute of Palaeobotany) $\times 500$. 4—A single grain photographed in Cambridge SEM ($\times 750$). 5—A portion of grain enlarged in SEM to exhibit exine pattern ($\times 2500$).