



LARGER FORAMINIFERAL AND CALCAREOUS ALGAL FACIES IN THE LAKADONG FORMATION OF THE SOUTH SHILLONG PLATEAU, NE INDIA

A. K. JAUHRI **, P. K. MISRA, S. KISHORE and S. K. SINGH

**GEOLOGY DEPARTMENT AND BOTANY DEPARTMENT, UNIVERSITY OF LUCKNOW, LUCKNOW-226007.
E-mails: akjauhri@rediffmail.com; misrapkm@yahoo.com; shyamk2001@rediffmail.com; sarveshmadwana@rediffmail.com

ABSTRACT

The Lakadong Limestone of the East Khasi Hills of the South Shillong Plateau, N.E. India is a major carbonate unit of the Lakadong Formation of the late Palaeocene to early Eocene age, which is the lowermost constituent formation of the Sylhet Limestone Group. The carbonates of the Lakadong Formation represent the larger foraminiferal-algal build-ups deposited in the progradational cycles of the carbonate platform related to sea-level fluctuations during the Thanetian and the Ilerdian. The foraminifera, calcareous algae and microfacies characters allow to distinguish two facies associations in the carbonate sequence: (i) Facies A characterising the lower 50m part and (ii) Facies B characterising the upper 50m part. The Facies A corresponds to the Thanetian sedimentation cycle in which deposition occurred in a relatively low-energy environment on a shallow subtidal ramp (protected lagoon). The Facies B correlates with the Ilerdian sedimentation cycle during which deposition occurred under low to moderate energy conditions on a relatively deeper mid-uppermost outer ramp, which allowed development of sediment-binding coralline algae and foraminifera such as discoeyclinids and *Ranikothalia*.

Keywords: Sylhet Limestone Group (Palaeocene-Eocene), Lakadong Formation, South Shillong Plateau, NE India, larger foraminiferal-algal facies, depositional environment