

First Report of Cretaceous Calcareous Nanofossils from the Ophiolite Associated Pelagic Sediments of Middle Andaman

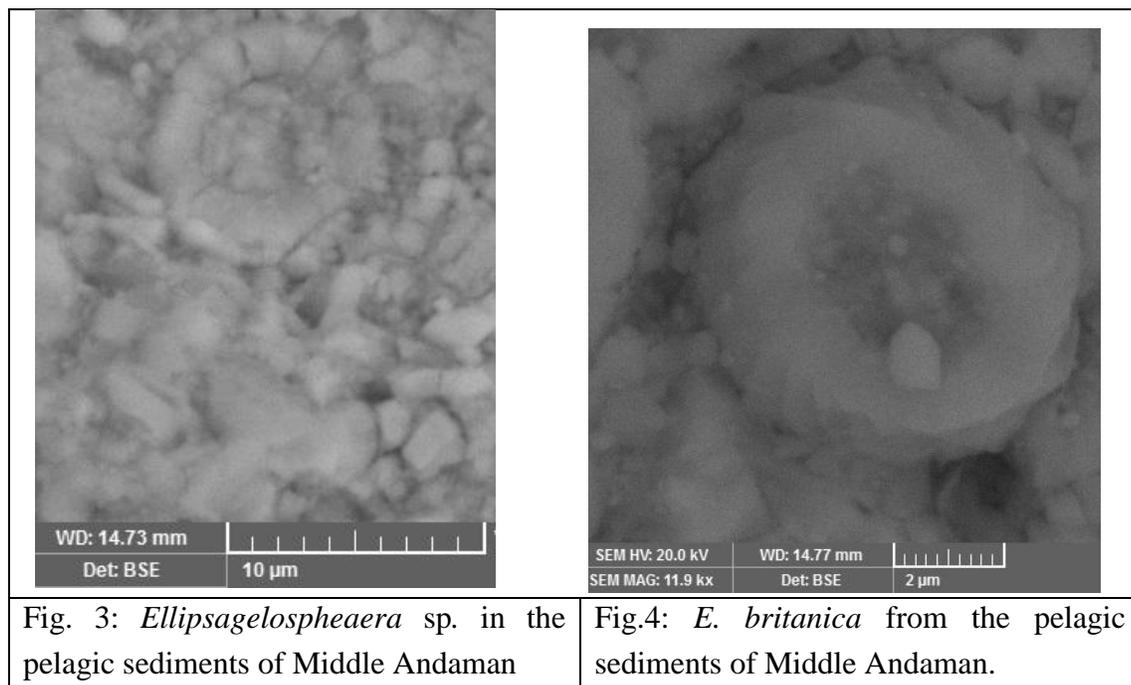
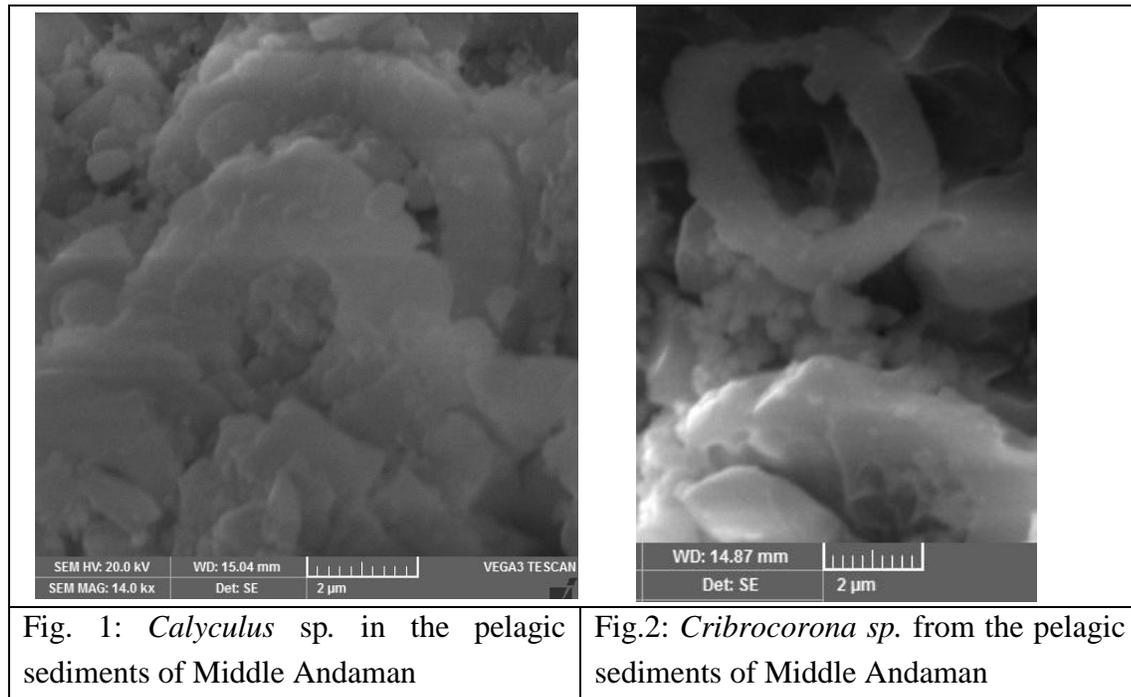
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An investigation on the pelagic sediments, associated with ophiolites, collected during the research project work, undertaken by Palaeontology Division, ER titled “Study of pelagic sediments associated with Ophiolites sequence of Andaman Islands” has brought out presence of rich assemblage of calcareous nanofossils along with radiolaria and planktonic foraminifera. Presence of radiolaria and planktonic foraminifera of Campanian -Maastrichtian affinity are reported from this pelagic sediment since long. However, the present study records calcareous nanofossil assemblage from the ophiolite associated pelagic sediments of Andaman Islands for the first time.

The pelagic sediments of middle Andaman have yielded both the coccoliths and nannoliths along with the algal spores and cysts. In most of the cases central disc of the coccoliths are not preserved. Nanofossil taxa identified are *Calyculus* sp. (Fig. 1); *Cribracorona* sp. (Fig. 2); *Ellipsagelosphaera* sp. (Fig. 3); *Ellipsagelosphaera britanica* (Fig. 4); *Tartolithus caistorensis* (Fig. 5). The nanofossils occur as nanofossil ooze (Fig. 6, 7& 8) along with calcareous claystone, calcareous chert sequence in Betapur section, Bakultala Section of Middle Andaman.

The nanofossil assemblage corroborate the age of Campanian - Maastrichtian as inferred from the associated radiolaria and planktonic foraminifera. Presence of calcareous nanofossil ooze indicates very deep marine environment far from the influence of clastic sediment supply. Detailed taxonomic studies of the forms would be valuable information for regional and global correlation of the cretaceous sediments and also in understanding palaeogeography.

SEM images of nanofossils recorded from pelagic sediments of Middle Andaman Island



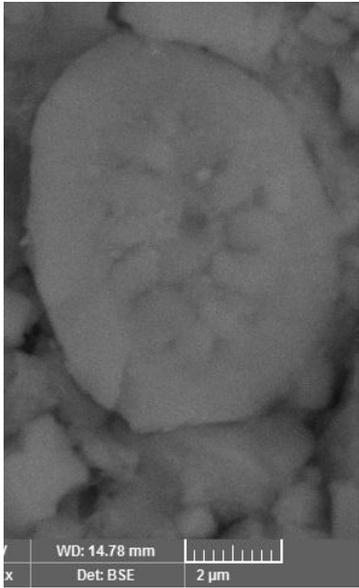


Fig. 5: *T. caistorensis* from the pelagic sediments of Middle Andaman

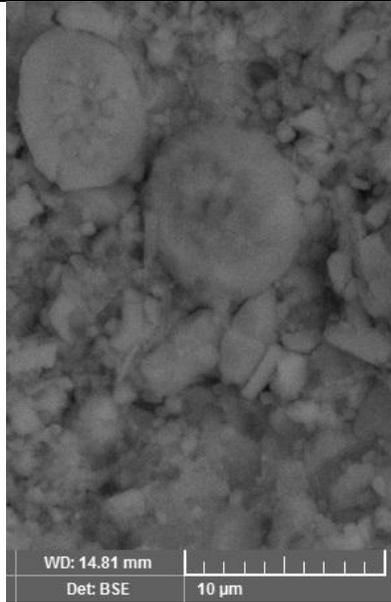


Fig.6: Nature of preservation of coccoliths in the pelagic sediments of Middle Andaman

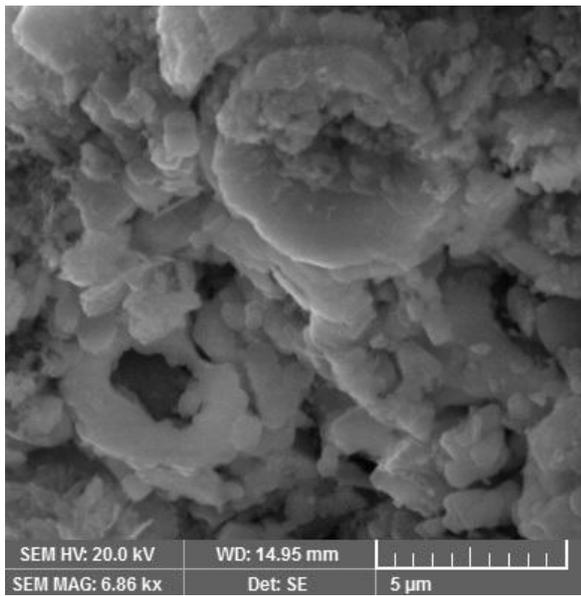


Fig. 7: Nannoliths in the pelagic sediments of Middle Andaman



Fig.8: Coccoliths ooze in the pelagic sediments of Middle Andaman.

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