

## ***Micula prinsii*: a latest Maastrichtian marker - its record from low-latitude northeast India, Meghalaya**

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A significant calcareous nannofossil assemblage was recorded from the latest Maastrichtian at a roadside section near Syndai village, Meghalaya. Twenty-one samples were studied from shales and sandy shales that had some calcareous intervals, but only ten samples were found to be productive. The assemblage recorded from the productive samples was indicative of the *Micula prinsii* Zone. The assemblage was mainly represented by *Arkhangelskiella cymbiformis*, *Braarudosphaera bigelowii*, *Calculites obscurus*, *Chiastozygus litterarius*, *Cretarhabdus conicus*, *Cribrosphaerella ehrenbergii*, *Cyclagelosphaera margerelii*, *Cylindralithus sculptus*, *Eiffellithus sp.*, *Eiffellithus turriseiffelii*, *Microrhabdulus undosus*, *Micula concava*, *M. murus*, *M. praemurus*, *M. premolisilvae*, *M. prinsii*, *M. staurophora*, *M. swastika*, *Prediscosphaera cretacea*, *Quadrum gartneri*, *Radiolithus planus*, *Retecapsa ficula*, *Scrippsiella* test fragments, *Thoracosphaera* spp., *Watznaueria barneisiae*, and *W. ovata*.

*Micula prinsii* Perch-Nielsen is the latest Maastrichtian marker all over the globe. It has been recorded from both deep-sea sections and shelf areas. It is the most evolved form of the genus *Micula* and became extinct just before the K/T boundary. The *Micula prinsii* Zone occurs from the first occurrence of *Micula prinsii* to the last occurrence

of unreworkeed, non-survivor Cretaceous taxa, and it correlates well with the CC26b Zone of Perch Nielsen and the UC 20d<sup>TP</sup> Zone of Burnett.

Previous records of calcareous nannofossils from late Maastrichtian and Cretaceous-Tertiary boundary sections indicated a doubtful presence of *Micula prinsii* from Indian sections. There are only two published papers that reported the actual presence of *Micula prinsii* in India. Garg & Jain (1995) recorded this species from the well-known Um Sohryngkew section from Meghalaya, northeast India, and the other record is from the Ariyalur Formation, Vridhhachalam, South India (Rai *et al.*, 2013). Therefore, the presence of *Micula prinsii* in latest Cretaceous sections in northeastern India, which were found in this study, is of significant value.

### **References**

- Garg, R. & Jain, K.P. 1995. Significance of the terminal Cretaceous calcareous nannofossil marker *Micula prinsii* at the Cretaceous-Tertiary boundary in the Um Sohryngkew section, Meghalaya, India. *Current Science*, **69**(12): 1012–1017.
- Rai, J., Malarkodi, N. & Singh, A. 2013. Terminal Maastrichtian age calcareous nannofossils preceding K/T mass extinction from Ariyalur Formation, Vridhhachalam area, South India. *Special Publication Geological Society of India*, **1**: 1–15.