

# Taxonomic note – New Cretaceous nannofossil taxa from the onshore Cauvery Basin, south-eastern India

## Sudeep Kanungo\*

University of Utah, Energy & Geoscience Institute (EGI), 423 Wakara Way, Suite 300, Salt Lake City, Utah 84108, USA & University of Utah, Department of Geology and Geophysics, Salt Lake City, Utah 84112, USA; skanungo@egi.utah.edu

## Paul Bown

Department of Earth Sciences, University College London, Gower Street, London WC1E 6BT, UK; p.bown@ucl.ac.uk

## Andy Gale

School of Earth & Environmental Sciences, University of Portsmouth, Burnaby Road, Portsmouth PO1 3QL, UK; andy.gale@port.ac.uk

Manuscript received 15th December, 2020; revised manuscript accepted 16th December, 2020

**Keywords** Albian, Cenomanian, Turonian, taxonomy, Cauvery Basin, India, Gondwana

### 1. Introduction

In a recently published study on the Cretaceous (Albian–Turonian) biostratigraphy of the Cauvery Basin, SE India, we described four new calcareous nannofossil species from the broadly cosmopolitan assemblages (Kanungo et al., 2021). The four species are *Calculites karaiensis*, *Loxolithus bicyclus*, *Manivitella fibrosa* and *Tranolithus simplex*. Here, we provide the holotype, paratype and a few additional images of the new taxa (Plate 1).

samples and Tanzania Drilling Project Sites 5, 9 and 15. *Journal of Nannoplankton Research*, **29**(1): 39–65.

### 2. Taxonomic clarification

The new species *Tranolithus simplex* (Plate 1, figs 5–10) is distinguished from *Zeugrhabdotus simplex* Lees, 2007 by its overall appearance in the light microscope, which is closer to that of other *Tranolithus* species (e.g. *T. gabalus*, *T. orionatus*) and the distinctive central perforation in its transverse bar that is very likely a spine base.

### 3. Taxonomic list

*Calculites karaiensis* Kanungo et al., 2021

*Loxolithus bicyclus* Kanungo et al., 2021

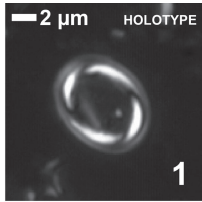
*Manivitella fibrosa* Kanungo et al., 2021

*Tranolithus simplex* Kanungo et al., 2021

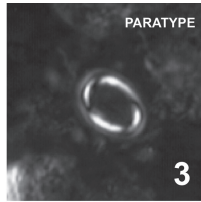
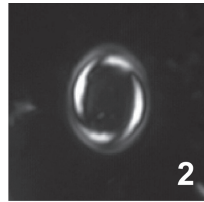
### References

- Kanungo, S., Bown, P. & Gale, A. 2021. Cretaceous (Albian–Turonian) calcareous nannofossil biostratigraphy of the onshore Cauvery Basin, southeastern India. *Cretaceous Research*, **118**. <https://doi.org/10.1016/j.cretres.2020.104644>
- Lees, J.A. 2007. New and rarely reported calcareous nannofossils from the Late Cretaceous of coastal Tanzania: Outcrop

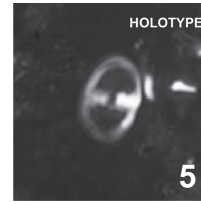
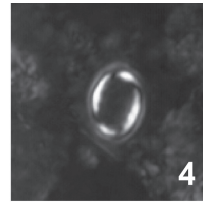
# Plate 1



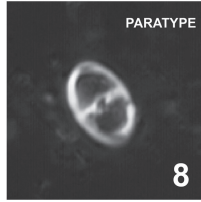
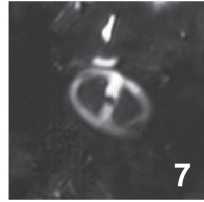
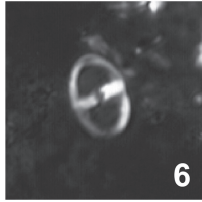
*Loxolithus bicyclus*  
sample GM101



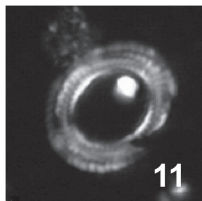
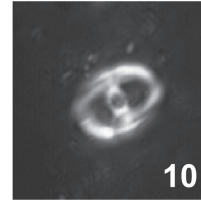
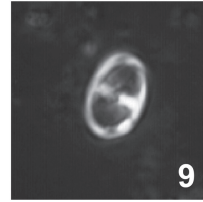
*L. bicyclus*  
sample GM101



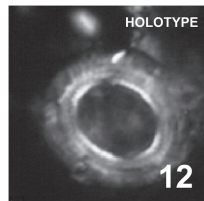
*Tranolithus simplex*  
sample KA373



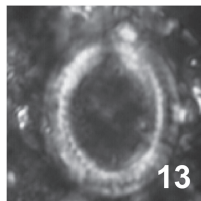
*T. simplex*  
sample GM37



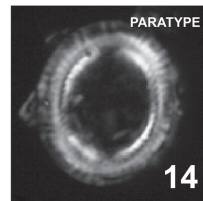
*Manivitella fibrosa*  
sample KA274



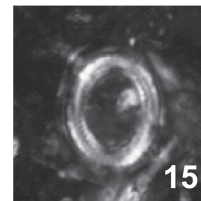
*M. fibrosa*  
sample KA278.5



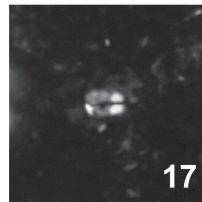
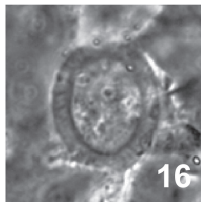
*M. fibrosa*  
sample GM65



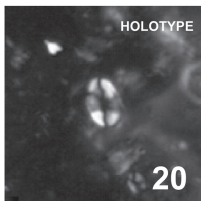
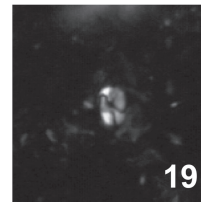
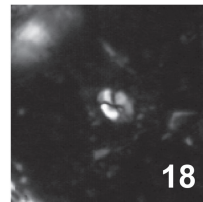
*M. fibrosa*  
sample KA391



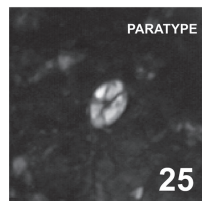
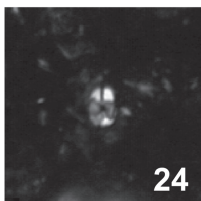
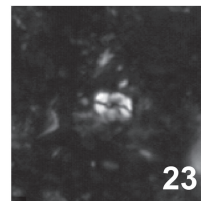
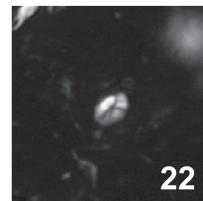
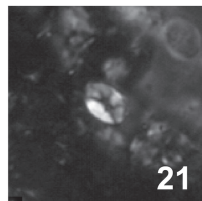
*M. fibrosa*  
sample KA292



*Calculites karaiensis*  
sample KA459.3



*C. karaiensis*  
sample KA459.3



*C. karaiensis*  
sample KA459.3

