

Nannofossil biostratigraphy of the upper Campanian–Maastrichtian in NW Bulgaria (SE Europe)

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Two continuous sections (Kladorub and Beloptichene) from the Campanian-Maastrichtian boundary interval in NW Bulgaria (SE Europe) were investigated for their nannofossil content. The studied sediments belong to the Kladorub Formation (upper Campanian–lower Eocene), which is comprised of alternating silty to fine sandy marls and marly limestones that occasionally are interbedded with thin sandstone layers. Previous studies on the Upper Cretaceous portion of the Kladorub Formation have used local zonations, and little information on taxonomic diversity and abundance of the nannofossil assemblages was provided.

The aim of the present study was to conduct a detailed examination of upper Campanian–Maastrichtian calcareous nannofossils in these sections and to assess the applicability of cosmopolitan zonation schemes, particularly Burnett's (1998) Upper Cretaceous zonation, for this stratigraphic interval in Bulgaria. The recovered nannofloras were taxonomically diverse and exhibited moderate to good preservation, which made possible precise taxonomic identifications and biostratigraphic analyses. As a

result, the presence of several previously undocumented, biostratigraphically significant taxa have been recorded. In the Kladorub section, all diagnostic nannofossil events from Burnett's zonation for the upper Campanian–Maastrichtian interval have been recognized. In the Beloptichene section, where the Upper Cretaceous strata are tectonically overlain by lower Paleocene terrigenous sediments, the Kladorub Formation only extends from the upper Campanian to the lower Maastrichtian.

The resulting biostratigraphic framework can now be correlated with previously published local zonation schemes for NW Bulgaria and elsewhere and can serve as a basis for further multidisciplinary studies on the Campanian-Maastrichtian boundary.

References

- Burnett, J.A. 1998. Upper Cretaceous. *In*: P.R. Bown (Ed.), *Calcareous Nannofossil Biostratigraphy*. British Micropalaeontological Society Publication Series. Chapman and Hall/Kluwer Academic Publishers, London: 132–199.