

A review of Cenozoic calcareous nannofossil biostratigraphic studies in the Hellenic territory (Greece): achievements and limitations

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In the marginal Mediterranean basin, the fragmentation of the geological record, together with a strong diachroneity in zonal boundary events and/or the absence or extreme rareness of primary marker species, does not allow easy application of the standard nannofossil zonations. Therefore, regional zonal schemes were developed (e.g., Theodoridis, 1984; Rio *et al.*, 1990; Fornaciari & Rio 1996; Fornaciari *et al.*, 1996).

In this study, an extensive dataset was constructed from investigated locations in the Hellenic territory (flysch, molassic, and post-alpine heavily terrigenous deposits) and available published Cenozoic calcareous nannofossil biostratigraphic results. The aim was to standardize the available data and provide realistic biochronologic estimates, based on the magnetobiochronology of Berggren *et al.* (1995) and the more recent astrobiochronological approaches of Lourens *et al.* (2004), Raffi *et al.* (2006), and Backman *et al.* (2012). In addition, a series of new locations with their unpublished calcareous nannofossil biostratigraphic determinations was incorporated into the biostratigraphic dataset, in order to provide a useful framework for biostratigraphic correlations in the eastern Mediterranean area (e.g., Triantaphyllou, 2013). Thus, a better understanding of the spatiotemporal impact on calcareous nannofossil biostratigraphic assignments from different geological-geotectonic origin deposits in the Hellenic territory was achieved, and the relative limiting factors could be described.

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