

Calcareous nannofossil events in the pre-evaporitic Messinian

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During the Messinian (7.2 to 5.3 Ma) the Mediterranean area experienced fast and deep climatic and eustatic structural changes. The stratigraphic framework for this interval is relatively well constrained and the beginning of the Messinian salinity crisis dated at 5.97 Ma determine a duration of at least 1.2 Ma for the pre-evaporitic Messinian that is object of this study. Several sites (Faneromeni, Pissouri, Polemi Fanantello borehole, Lemme, Pollenzo, Govone, Moncalvo; Wade and Bown, 2006; Kouwenhoven et al 2006, Morigi et al 2007, Lozar et al 2010, Dela Pierre et al 2011) show similar calcareous nannofossil record behavior, with several *Sphenolithus* spp. peaks recognised at different quotes in each of the sections. Aim of the present work is to compare the calcareous nannofossil data achieved in the above mentioned sections: interestingly, the occurrence of strongly oligotypic assemblages related to high salinity and unstable environments, appear to correlate precisely among the investigated sites and occur immediately before the onset of the Messinian salinity crisis, then offering the possibility to use them as bioevents for regional correlation.

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