

delphix (NN1) and *Sphenolithus disbelemnus* (NN2) while the species of *Dictyococcites bisectus* is absent. At the same time the level of reworked species is high.

Stratigraphy and Larger Foraminifera of the Eocene Shallow-Marine and Olistostromal Units of the Southern part of Thrace Basin, NW Turkey

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The Eocene marine sequence in the southern part of the Thrace Basin (NW Turkey) involves a variety of platform and deep-marine olistostromal units, the stratigraphies of which have been highly debated in the past. A detailed analysis of larger foraminifera in these either foraminifera or foraminifera-coral-coraline algae-dominated platform and associated comparatively deeper-marine units permits us to establish a high-resolution biostratigraphy in the context of shallow benthic zonation (with SBZ Zones) of Tethyan Paleogene. The oldest Zone (SBZ 5 corresponding to the basal Ypresian) was observed only in olistoliths. An old erosional remnant of a transgressive shallow marine to basinal sequence (Dişbudak sequence; late Ypresian-? middle Eocene) was recognised below the the regionally most widespread carbonate platform unit, Soğucak Formation. The Dişbudak sequence, previously considered to belong to the Soğucak Formation and formally introduced recently, contains the foraminifera, such as orthophragmines, nummulitids and alveolinids in its shallow-marine package referred to SBZ 10 (late Ypresian). The Soğucak Formation, which oftenly exhibits patchy reef developments, contains a rich and diverse assemblages of orthophragmines (*Discocyclina*, *Orbitoclypeus* and *Asterocyclina*), nummulitids (reticulate and other *Nummulites*, *Assilina*, *Operculina*, *Heterostegina* and *Spiroclypeus*), and other benthic taxa (*Silvestriella*, *Pellatispira*, *Chapmanina*, *Orbitolina*, *Linderina*, *Gyroidinella*, *Fabiania*, *Halkyardia*, *Eoannularia*, *Sphaerogypsina*, *Asterigerina*, *Planorbulina* and *Peneroplis*). Their assemblages, referred to SBZ 15/16, 17, 18, 19 and 20 Zones, provide a precise tool for recording the history for marine events having resulted in the deposition of Soğucak Formation during mainly four periods. The spatial distribution of them, recorded as Late Lutetian, Early Bartonian, Late Bartonian and Priabonian, within the present paleogeography, suggest a marine inundation from W-SW to E-NE. The Çengelli flysch sequence overlying the Soğucak Formation in a limited area to the east of Gelibolu peninsula, contains the benthic foraminifera mainly in the limestone olistoliths, mostly derived from the Soğucak Formation, and also in the turbiditic levels. The assemblages in the olistoliths reveal the existence of various shallow-marine limestone sequences ranging in age between (late) Bartonian and early Priabonian.

An Investigation of Biogeochemical Anomalies for Li and Sr in the Kırka (Eskişehir -Turkey) Borate Mining Area

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Biogeochemistry was founded by V.I. Vernadsky in the 1926. But a few journals were able to report all of the important developments in biogeochemistry in the 1950's. Recently,