Antalya and Yavuz nappes. Antalya Nappes are represented by Isparta Çay Formation (Early-Middle Triassic stratified chert and plaquette limestone) and rocks in ophiolite melange. In the region, the rock units in Antalya Nappes overlie the carbonate rocks of Beydağları Formation in the southern part of the investigated area tectonically. Besides, the Eocene turbidites known as Yavuz Nappes, form the other important allochthonous unit in the region. The Eocene units belonging to Yavuz Nappes and overlie the Miocene (Aquitanian to Burdigalian) units tectonically.

On the other side, the dikes and subvolcanic domes of trachytic (5,45 ± 0,21 – 5,77 ± 0,22 Ma) and lamproitic (6,75 ± 0,25) composition are located in various points of the study area. These volcanic formations are located in Antalya-Isparta volcanic belt of N-S strike mostly. By a tectonical interpretation of the investigated area, the area was affected by two various compressional tectonic forces, namely N-S and E-W. The time interval from Late Cretaceous to Early Pliocene contains compressional tectonic features in N-S direction dominantly. After Early Pliocene time, the area was affected by compressional tectonic features in E-W direction. These compressional tectonic features affecting the study area and developing after each other and in various directions are the tectonical reasons which led to the formation of the Kışla Dome. On the other side, subvolcanic dikes and domes in the Kışla Dome area reflect a magmatic activity in the same age with the Kışla Dome which is supported by age determinations of volcanic rocks and their equivalent plutonic rocks such as syenite xenolithes (trachyte: 5,77 ± 0.22 Ma and 24.000 ± 2.000 a; Syenite: 4,92 ± 0,9 Ma).

Radiolarian biostratigraphic dating on Middle Triassic basalts in western part of Neotethyan oceanic basins

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Early rifting-related submarine volcanics and related deep-sea sedimentary units, including radiolarites of the Western Tethyan orogenic belt, provide important clues to the geodynamic evolution of the Mesozoic Neotethys. Stratigraphic dating of these rocks is especially difficult due to the absence of stratigraphically useful macrofauna. However, radiolarian micropaleontologic investigation has proven that this group is particularly useful for biostratigraphic dating in such sequences where the deep-sea sedimentary units (i. e. radiolarian cherts, cherty limestones, etc.) are connected with volcanics. Radiolarian-rich sedimentary units are widespread in Neotethyan units ranging in age from Triassic to Cretaceous and geographically from the Iberian to southern Tibet and western Thailand despite the restricted outcrops and limited available biostratigraphical evidence of radiolarites associated with volcanic rocks in Neotethyan oceanic basins. The aim of this study is to present new radiolarian biostratigraphical data from several localities in the northern Pindos and Othrys Mountains, Greece, where radiolarites directly overlie basalts, and from several localities from Bükk-Darnó area in NE Hungary. The radiolarian biostratigraphic dating suggests that the westward propagating Neotethyan rifting started earlier in the Hellenidic domain than in the Circum-Pannonian region. In the former area pelagic sedimentation began in the Late Scythian and oceanic crust was already formed in the Late Scythian?–Anisian time, whereas in the latter region (which was located in the northwest end of the later Neotethys Ocean) pelagic sedimentation began only in the Middle–Late Anisian, but formation of new oceanic crust is not documented before the Ladinian.