

## LATE MIDDLE TO EARLY LATE TRIASSIC RADIOLARIAN FAUNAS FROM THE IZMIR-ANKARA SUTURE BELT IN WESTERN TURKEY: REMARKS ON THE EVOLUTION OF THE NEOTETHYAN IZMIR-ANKARA OCEAN

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Izmir-Ankara Suture Belt (IASB) in north Turkey comprises the remnants of Neotethyan Izmir-Ankara Ocean (GONCUOĞLU, 2000) and is an almost 200 km wide E-W trending belt between the Sakarya Composite Terrane in the north (GONCUOĞLU et al., 1996) and the Tauride-Anatolide Platform (TAP) in the south. Within the suture belt several tectonic units of three different main tectonic settings were recognized as thrust sheets above the units of the TAP:

1. Northern and uppermost one including more or less complete successions of the IAO lithosphere.
2. Median one with tectonic mélanges of the subduction-accretionary complex of IAO, comprising blocks of ophiolites, fore-and back-arc volcanics, radiolarian cherts, pelagic limestones and blueschists,
3. The southern and lower one belonging to the Maastrichtian –Early Paleocene flysch complex (Bornova Flysch Zone) with olistoliths and olistostromes of the former two settings and the TAP margin successions. It was formed in a peripheral foreland basin on the northern edge on the TAP, in front of the southward advancing nappes (GONCUOĞLU et al., 2006b).

The olistoliths within the melange, especially volcanics associated with sediments provide evidence for the geological evolution of the TAP continent margin as the well as the initial stages of the rifting and opening of Izmir-Ankara oceanic sea-way. Our long-lasting study along the IASB has shown that the oldest radiolarian sediments associated with volcanism are not older than Triassic. From the Bornova Flysch Zone to the NW of Manisa W Turkey) five different Triassic radiolarian assemblages have been derived from the blocks in the IASB (Tekin et al., 2006). Four of assemblages have been obtained from isolated blocks mainly composed of a radiolarian cherts- mudstones alternation. Their ages are: Late Ladinian, coinciding the *Muelleritortis cochleata* zone; early Carnian, coinciding the *Tritortis kretaensis* Zone; late Early Carnian, coinciding the “unnamed radiolarian zone” between *Tritortis kretaensis* and *Tetraporobrachia haeckeli* zones and early Middle Carnian, coinciding the lower part of *Tetraporobrachia haeckeli* zone established by KOZUR & MOSTLER (1994, 1996) and KOZUR (2003).

One continuous section (Komurcu Measured Section) with an alternation of chert and mudstone was recognized in a mega- block further NW. Diverse radiolarian faunas were obtained from this section that ranges from late Ladinian, coinciding the *Muelleritortis cochleata* zone to late Early Carnian, coinciding the “unnamed radiolarian zone” between *Tritortis kretaensis* and *Tetraporobrachia haeckeli* zones. *Pseudostylosphaera mostleri* n. sp. was defined from this section.

The new data obtained from the Bornova Flysch Zone reveals that the earliest radiolarian chert deposition to the N of the TAP commenced during the late Middle Triassic. Combined with geochemical data from the associated volcanic rocks it is shown that this event is related to the opening of the of the Izmir-Ankara Branch of Neotethys confirming our earlier suggestions (GONCUOGLU et al. 1996, 2001, 2003, 2006a; GONCUOGLU, 2000; and TEKIN et al. 2002, 2006) from the Eastern parts of IASB.

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