

## **The genus *Zonocypris* MÜLLER, 1898 (Crustacea, Ostracoda, Cyprididae) from continental Miocene deposits of Central Anatolia (Turkey): palaeoecological and palaeogeographical implications**

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MÜLLER (1898) erected the genus *Zonocypris* on living specimens from Madagascar. In the original diagnosis, the main characteristics of the genus are: the peculiar ornamentation made by concentric ridges, the adont hinge and the morphology of the second antenna and the furca. Living species of *Zonocypris* mainly occur in the Afrotropic ecozone and in particular in the slightly alkaline African lakes. Occasional findings of living species are reported also from Turkish lakes (O. KÜLKÖYLÜOĞLU, pers. com.). Living *Zonocypris* species are considered detritivorous, typical of shallow fluctuating lakes and mostly occurring during seasonal regressions of lake coastal waters (RYNER et al. 2007). The modern distribution of the genus is linked to adaptation to shallow (max. 7 m) slightly alkaline lakes (BABINOT et al 2003, cum bibl).

During a recent survey of Neogene continental deposits outcropping in the Çankiri basin, one of the largest intermontane Tertiary basins of the Central Anatolia Plateau (Turkey), several Miocene sections have been sampled for micro-palaeontological analyses. In particular, the Tuglu and Bozkir sections, dated Middle and Late Miocene respectively, yielded a rich ostracod fauna dominated by *Cyprideis* spp. and *Ilyocypris* spp. Among the accompanying taxa, the genus *Zonocypris* MÜLLER was one of the most abundant, occurring with two different species: *Z. membranae quadricella* STANCHEVA, 1966 in the Tuglu section and *Z. membranae* (LIVENTAL, 1929) in the Bozkir section. *Z. membranae* has been already recorded in the continental Miocene of Turkey (WITT 2003) whereas the subspecies *quadricella* is reported for the first time from Turkey.

As fossil, *Zonocypris* species have been recovered from the Cretaceous of Europe, India, China and South America. In Turkey, Italy and central and North Africa *Zonocypris* has been recovered from Miocene sediments. Its distribution during Plio-Pleistocene is wider and includes Italy, France, Greece, Turkey, Bulgaria, Russia, India and Ethiopia. From a palaeoecological perspective, most of the fossil species are referred to a freshwater environment.

The sub-species *Zonocypris membranae quadricella* STANCHEVA, 1966 has been referred to several oligohaline deposits of the Parathetys (SCHNEIDER in SUZIN 1956; MANDELSTAM et al. 1962; STANCHEVA 1966; OLTEANU 1995; KRSTIĆ 2006).

Such environmental preference is confirmed by the finding in Central Anatolia, which also extends the stratigraphical range of the sub-species to the early Late Tortonian.

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