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Tanzanicythere levantina n. sp. (Ostracoda, Cytheruridae), first finding of the genus in the Mediterranean area

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KEY WORDS – *Ostracoda*, *Tanzanicythere*, *Systematics*, *Tortonian*, *Mediterranean*.

SUMMARY – The occurrence of the genus *Tanzanicythere* Ahmad, 1977, represented by *T. levantina* n. sp., here described and illustrated, is cited for the first time from the Mediterranean basin. The new species has been found in the Upper Tortonian sediments of Greece, from a shallow marine environment, not deeper than 30–40 m.

RIASSUNTO – [*Tanzanicythere levantina* n. sp. (Ostracoda, Cytheruridae), prima segnalazione del genere nell' area mediterranea] – Viene segnalata per la prima volta nel Mediterraneo la presenza di *Tanzanicythere* Ahmad, 1977, rappresentato da *T. levantina* n. sp. che viene qui descritta e illustrata. La nuova specie proviene da sedimenti alto tortoniani della Grecia, di ambiente marino probabilmente subtropicale non più profondo di 30–40 m.

INTRODUCTION

The genus *Tanzanicythere* Ahmad, 1977b, originally described as *Cladarocythere* Ahmad, 1977a preoccupied, is a well defined genus characterized by a largely developed ventral frill, pierced by a variable number of pore-canals. The ventral area is completely flat, the hinge very similar to that of *Semicytherura* Wagner, 1957, muscle-scars pattern consisting of a vertical row of 4 and 3 frontal ones, the lowest of which V-shaped.

As far as we known, only 3 species pertaining to *Tanzanicythere* have been reported and described, that is "genus uncertain" species RC from the subRecent of Nosy Bé, Madagascar (Maddocks, 1966), *T. tri-dacna* (Bonaduce, Masoli & Pugliese, 1976) from the Recent of the Gulf of Aqaba, and *T. pterota* (Ahmad, 1977a; Ahmad *et al.*, 1991) from the Lower Miocene of Tanzania.

New specimens attributable to the genus *Tanzanicythere* have been found in sediments from Greece (Western Crete, Province of Khania, Khairitiana Formation) attributed by Sissingh (1972) to the Upper Tortonian. These new specimens belong to a new species which is here described, *T. levantina*. The new species is associated with *Callistocythere*, *Tenedocythere*, *Aurila* and *Cistacythereis* (*Cistacythereis*), which all indicate an environment not deeper than 30–40 m.

The present tropical distribution of the *Tanzanicythere* suggests that similar climatic conditions have been present in the Mediterranean Basin during the Late Tortonian.

The new finding of *Tanzanicythere* in the Mediterranean area poses some paleogeographical

problems about where it originated and its migration path. The oldest record seems to suggest that *Tanzanicythere* originated in southwestern Indian Ocean in the Early Miocene. If this is true although not fully demonstrated, its occurrence in the Mediterranean during the Late Miocene rises the question how *Tanzanicythere* could have migrated into the Mediterranean since, according to the most recent reconstructions, the connection with the Indian Ocean closed down around 12 Ma, the *Hipparion* event (Rögl & Steininger, 1983; Orszag-Sperber *et al.*, 1993), even if subsequent shallow temporary connections between the two basins cannot be excluded with certainty.

SYSTEMATICS

Order PODOCOPIDA G.W. Müller, 1894
Suborder PODOCOPA Sars, 1866
Superfamily CYTHERACEA Baird, 1850
Family? PARACYTHERIDEIDAE Puri, 1957

TANZANICYTHERE LEVANTINA n. sp.
Text-figs. 1 a-b

Etymology – From latin *levantinus* = eastern.

Holotype – A right valve (Text-fig. 1a). B.O.C. 2383.

Paratype – A left valve (Text-fig. 1b). B.O.C. 2384.

Type locality – Papadopoulos, Khairitiana Section (Greece), Sample 3.

Age – Late Tortonian (fide Sissingh, 1972).

Diagnosis – A species of *Tanzanicythere* Ahmad 1977b, characterized by the presence in both valves of the upturning caudal process and, in lateral view by the almost straight central part of the dorsal margin which posteriorly is inflexed towards the caudal process and by the peculiar shape of the frill.

Description – Valves in lateral view with central part of dorsal margin straight and feebly bending toward the anterior, antero-dorsal regularly arched down to the clearly protruding anterior extremity of the frill, postero-dorsal forming an evident angle with the central part, and connected with the long and upturned caudal process by an accentuated concavity. Hinge (RV) constituted by pluridenticate teeth at both extremities, groove shallow and apparently smooth. A series of very thick straight marginal pore-canal penetrate the frill, which apparently polyfurcate in thin pores at their extremity. The thick pores subdivide the frill into 10 compartments.

In dorsal view the frill's margin is anteriorly regularly arched, at middle length almost parallel to the hinge-line and posteriorly subtruncated with an evident angle with respect to the median part (about 45°). The frill is abruptly truncated laterally all around the valve and surrounded by 2 longitudinal poorly developed parallel ribs. Eye-tubercle present

even if not well developed. The ornamentation is constituted by very delicate pits which seem to occur all over the valve, the frill's margin excepted which is smooth.

Size (in mm) – RV Holotype: L = 0.58; H = 0.27 (Text-fig. 1a).

Remarks – According to Ahmad (1977a), *T. pterota* and *T. species RC* may be eventually conspecific. In our opinion the species RC of Maddocks is possibly conspecific with *T. tridacna*.

The proposed new species differs from the previously described ones principally for the laterally angularly truncated frill and for the occurrence along its margin of two evident ribs. Additionally, it differs from *T. tridacna* for the absence of the ridge running from the anterodorsal to the anteroventral margin, the lack of the secondary ornamentation and the particularly upturned caudal process. It differs from *T. pterota* also for the straight frill margin instead of undulated, for the different shape in lateral and dorsal view and for the more upturned and developed caudal process.

Repository – The two valves at disposal are stored in the Bonaduce Ostracode Collection (B.O.C.), Department of Scienze della Terra, University of Naples.

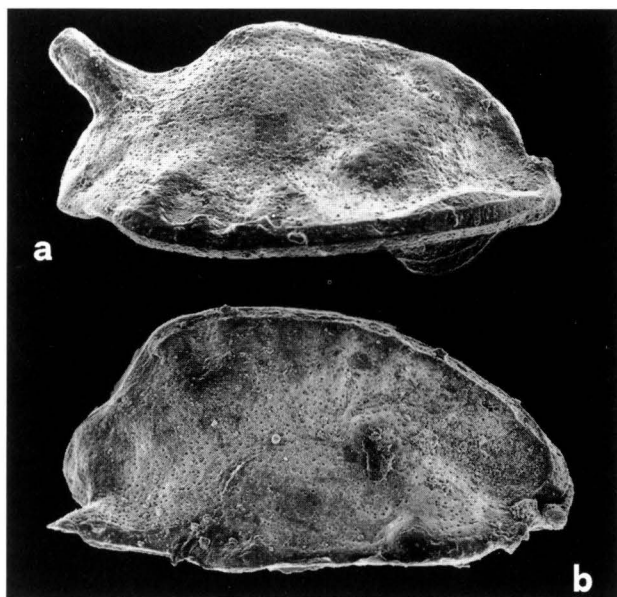
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Text-fig. 1 - *Tanzanicythere levantina* n. sp., Papadopoulos, Khairitiana Section (Greece).
 1a - Holotype, RV in lateral view, B.O.C. 2383, (x 113).
 1b - Paratype, LV in dorsal view a little oblique, B.O.C. 2384, (x 123).

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