

**COSMOCHTHONIUS TAURUS N. SP.
(ACARI:ORIBATIDA:COSMOCHTHONIIDAE) FROM TURKEY**

BY R. NIEMI¹, E. GORDEEVA² and N. AYYILDIZ³

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SUMMARY: *Cosmochthonius taurus* n. sp. is described from Turkey, Antalya, Taurus mountains.

ZUSAMMENFASSUNG: Eine neue Art, *Cosmochthonius taurus* n. sp. aus Türkei, Antalya, Taurus-Gebirge wird beschrieben.

INTRODUCTION

Species of the genus *Cosmochthonius* Berlese, 1910 have been found from Holarctic and Pantropical Regions (BALOGH & MAHUNKA, 1983 and BALOGH & BALOGH, 1988). Currently the genus (s. str.) consists of 30 known species (AYYILDIZ & LUXTON, 1990; AOKI, 1994; LEE, 1982; SERGIENKO, 1991; SUBIAS & GIL-MARTIN, 1997). Most of these have been recorded in the Palearctic Region, and 11 have been reported from Western Mediterranean. In addition to the undescribed species one other species is known from Turkey: *C. macrosetosus* Ayyildiz & Luxton, 1990.

In the description, chaetotaxic notations and other characters follow the terminology of GRANDJEAN (1962). The drawings were made with the aid of camera lucida attached to a compound microscope.

Cosmochthonius taurus sp. n.

(Fig. 1.)

Type material: Holotype (female), Turkey, Antalya, Taurus mountains, close to Koprulu canyon,

(37.10 N, 31.11 E, 164 m a.s.l.) in litter under *Arbutus* sp., June, 1993. The specimen is deposited (in alcohol) in the Zoological Museum of the University of Turku.

Size: length 351 µm, width 195 µm, colour: yellowish-brown. Hysterosoma almost oval (Fig. 1 A).

Prodorsum. Middle part of prodorsum covered by cerotegument with small, round and irregular pores. Rostrum and dorso-sejugal suture without cerotegument. Apex of rostrum with small dents (Fig. 1 B) and margin of rostrum with low, prolonged, almost parallel dents. Some small, oval and round fenestrations on dents. Rostral setae (*ro*) on tubercle, long, slightly widened with bifurcate or trifurcate bristles. Lamellar setae (*le*) wide, biramose with bi- or trifurcate bristles; anterior branches longer than posterior ones. Interlamellar setae (*il*) and posterior exobothridial setae (*exp*) wide with long bifurcate bristles; anterior exobothridial setae (*exa*) short and smooth. Head of sensillus (*ss*) with small bristles, twice as long as its stalk.

Notogaster. Notogaster comprised of four plates (*Na*, *Nm*₁, *Nm*₂ & *Py*). First, second and third plates

1. Niemi, R., Zoological Museum, University of Turku, FIN-20014 Turku, Finland, e-mail: ritniemi@utu.fi.

2. Gordeeva E., Karadag Natural Reserve, Ukrainian National Acad. Sci., P.O.Kurortnoe, Feodosia, Crimea 334876, Ukraine, e-mail:elgordva@crimea.com

3. Ayyildiz, N., Department of Biology, Erciyes University, Kayseri, Turkey, e-mail:nayildiz@erciyes.edu.tr.

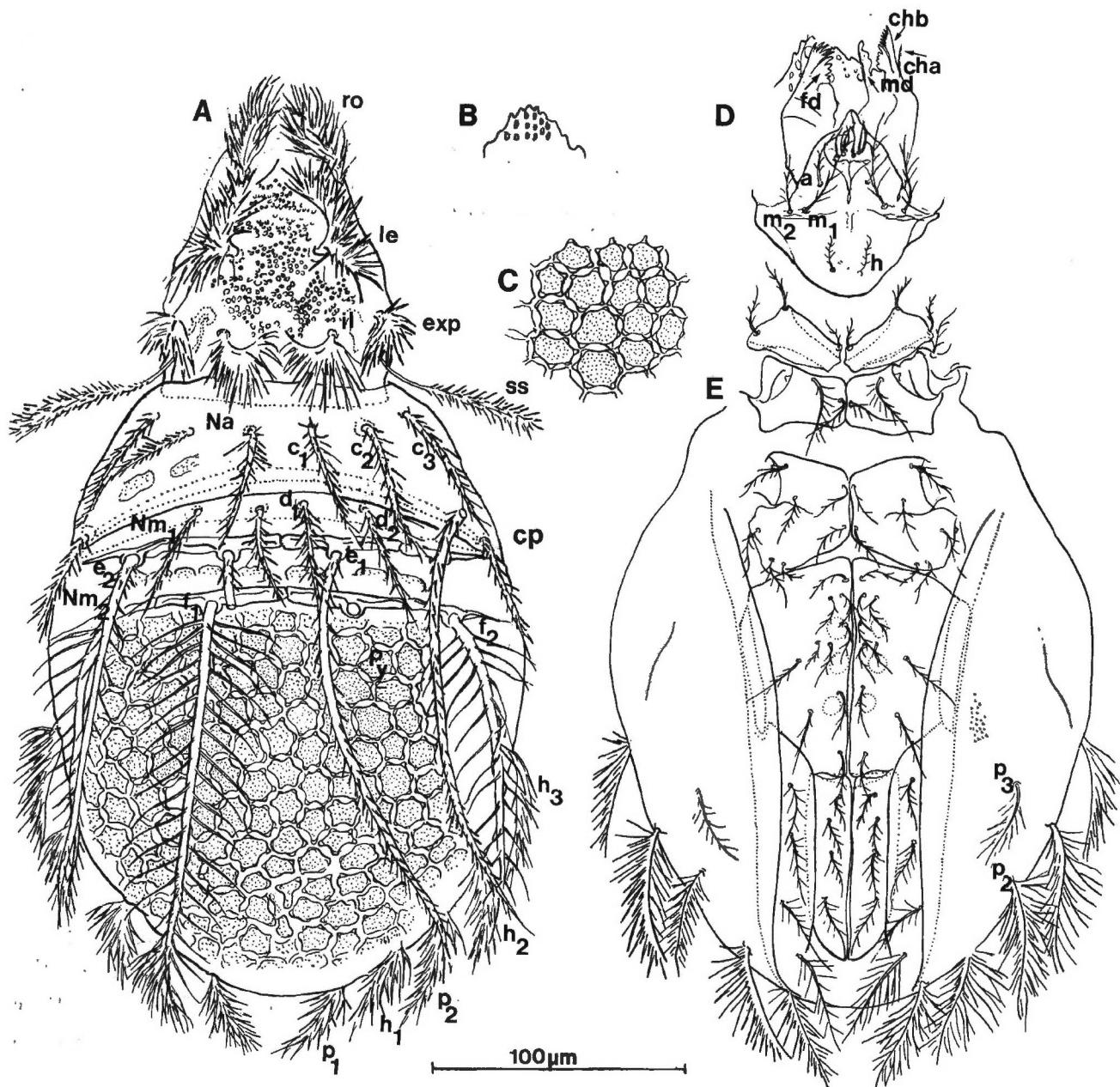


FIG.1: *Cosmochthonius taurus* n. sp. A. — Dorsal view, legs removed. B. — Rostrum, dorsal view. C. — Cuticular structure of pygidium. D. — Subcapitulum, ventral view. E. — Venter, legs omitted.

covered by thin cerotegument without special structure, whereas that on plate *Py* forms very distinct, regular and polygonal net work (Fig. 1 C). Plate *Na* with four pairs of setae, *c*₁, *c*₂, *c*₃ and *cp*. Distances between *c*₁-*c*₁, *c*₁-*c*₂ and *c*₂-*c*₃ equal. Setae *c*₁ and *c*₂

reach the level of setae *e*, while setae *c*₃ reaches the base of setae *cp*, which insert at postero-lateral corners of *Na*. All setae simple, setiform with lateral cilia. Plate *Nm*₁ with two pairs of setae, *d*₁ and *d*₂. Distance between setae *d*₁-*d*₁ slightly shorter than

distance between d_1 - d_2 . All setae similar to those of *Na*. Four long setae, e_1 , e_2 , f_1 and f_2 on narrow, transverse intercalary sclerites lying between plates Nm_1 - Nm_2 and plates Nm_2 - Py , respectively. Setae e_1 longest, and setae e_2 , f_1 and f_2 equal in length. Setae e setiform with short cilia, whereas setae f bipectinate, with very long cilia. Setae h_{1-3} and p_1 near posterior margin of pygidium. Setae p_2 and p_3 on ventral side. All setae slightly thickened with long bi- and trifurcate bristles.

Ventral side. Ventral surface of body covered by smooth cerotegument without special structure (Fig. 1 E). Formula for epimeral setae (I-IV): 3-2-3-4. Genital plate with 10 setae and both anal- and aggenital plate with 4 setae. All setae similar; simple with thin cilia. Subcapitulum anarthric. Setae m_1 , m_2 and a with thin secondary setae and long, whereas setae h half of those; three pairs of adoral setae (*ad.s.*) extend over rutellum (Fig. 1 D). Cheliceral setae *cha* short and thin, whereas setae *chb* wide with six "fingers". Fixed digit of chelicera (*fd*) with three teeth and movable digit (*md*) with three lobes. Setation of pedipalps: 0-2-1-3-11.

Legs. Setation (trochanter to tarsus): I (0-5-5-6-19), II (1-6-5-6-17), III (2-3-4-4-15), IV (2-3-4-4-14). Solenidia (genu-tibia-tarsus): I (0-1-1), II (0-1-1), III (0-1-0), IV (0-1-0). Claws (I-IV): 2-3-3-3.

Diagnosis. *Cosmochthonius taurus* is similar to *C. desaussurei* Mahunka, 1982 from Mexico in having the setae f_1 but differs from it e.g. by the bipectinate setae f_2 , and by the structure of the cerotegument on the pygidium and the prodorsum. *C. perezinigoi* Morell, 1988 from Spain has the similar setae f_1 and f_2 of *C. taurus* but it is distinguished from it by setae e_1

and e_2 , by the structure of the cerotegument on the pygidium and by the form of the rostrum.

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