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CAUDACHELES, A NEW GENUS IN THE FAMILY CHEYLETIDAE (ACARINA : PROSTIGMATA)

BY

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Caudacheles Gerson gen. nov.

Palptarsus with one comb-like seta and two sickle-like setae; palptarsus toothless; dorsum of idiosoma covered by 2 strongly-reticulated shields which carry 40 pairs of shell-like setae; no eyes; anus developed as a caudal projection, well separated from the genital covers; all legs with claws and empodia, leg I not much longer than leg II; solenidion w on tarsus I without guard seta.

Type species: Caudacheles khayae Gerson sp. nov.

Remarks: The generic affinities of Caudacheles are obscure. Its combination of characters is unlike that of any other known cheyletid genus. By virtue of its dorsal reticulation, shell-like setae and toothless palptarsus, Caudacheles may come nearest to Ker Muma. It differs from the latter genus in having only one comb-like seta on the palptarsus, in having no eyes and no guard seta on Tarsus I, and in having a much larger number of dorsal setae. Caudacheles also has one unique feature not present in any other known cheyletid genus, namely, the projecting caudal anal tube'.

Caudacheles khayae Gerson sp. nov.

FEMALE. Gnathosoma about a third as long as idiosoma. Palpfemur slightly longer than wide, inner margin with a faint bulge, outer margin strongly rounded, with 1 very large dorsal, shell-like seta (Figure 2) and 2 hair-like ventral setae placed on inner half of segment. Palpgenu with 2 dorsal setae, both on outer margin, the lower one large, shell-like, the other simple, hair-like. Palptibia carries 2 hair-like setae, on outer and inner margins, and a toothless, curving claw. Palptarsus

with 1 comb-like seta which has 9 bluntly-rounded teeth, 2 sickle-like setae, longer and shorter, respectively, than comb-like seta, and an additional, slightly inflated, simple seta. Rostrum bulged behind palpi (Figure 1), its shield covered by longitudinal granulations, and it carries 2 pairs of simple, short, apical setae, dorsally and ventrally located. Peritremes apparently with only 2 pairs of segments. Venter of rostrum with longitudinal striations and a pair of hair-like setae.

Idiosoma almost completely covered by 2 large shields, both strongly reticulated, this reticulation having a pentagonal-hexagonal pattern. Propodosomal shield trapezoidal, without eyes, but with 20 pairs of shell-like setae, 10 marginals and

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**Fig. 1**: *Caudacheles khayae* sp. nov. Dorsal aspect of female.
ro submedians, arranged as in Figure 1. The anterior marginal setae are somewhat larger than all others. One pair of similarly-shaped shoulder setae placed just posteriorly to coxae II. A few transverse striations divide the propodosomal shield from the hysterosomal one, the latter a little narrower than the former shield and also with 20 pairs of shell-like setae. The dorsal reticulation becomes caudally somewhat less pronounced and some faint reticulated imprint appears also outside hysterosomal shield, on punctate lateral area. Venter of idiosoma unreticulated, with 4 pairs of short (5-10 μ) setae, inserted between coxae I, II and IV, and behind coxae IV, respectively. Two pairs of simple, nude paragenital setae present, located near the anterior and the posterior ends of the genital covers, these setae subequal, 12-15 μ long and twice as much apart. Genital opening about 50 μ long, each of its covers with 2 setae, as long as paragenitals and placed close together (Figure 3). Anal ring in the form of an outwardly protruding tube, removed by about 20 μ and many striae from the posterior end of the genital opening, and shaped like an inverted flower pot (Figure 3). The lower margin of the tube carries 3 short (5 μ) pairs of anal setae.

Legs : In 2 groups, I + II, III + IV, width of gap between coxae II and III less than diameter of either of these segments. Leg I : Coxa with 2 simple, nude setae; trochanter with 1 shell-like seta; femur carries a large, scale-like seta on dorsum and a similar, but smaller, one on venter; genu bears 2 dorsal shell-like setae and a minute, club-shaped dorsal sensillus; tibia with a similar sensillus and also with a simple, ventral seta, as well as 3 shell-like setae, 1 dorsal, the others on ventral and dorsal sides, respectively, of inner margin of segment. Tarsus (Figure 4) has a basal ridge on which a large, scale-like seta is located. It also has a simple ventral seta at midsegment, a subterminal, small (10 μ) solenidion which is apparently without guard seta, 2 long end setae and also 4 additional simple setae which are clustered around terminal part of tarsus and are shorter than stalk and claws. Leg II : Coxa with 1 median simple seta; trochanter as in leg I; femur carries 2 shell-like setae, on dorsum and outer lateral margin; genu with a dorsal shell-like seta as well as a simple one on its inner margin. Tibia bears a minute, dorsal sensillus and 4 setae, those on dorsum and outer margin shell-like, those on venter and inner margin simple. Tarsus with a small, subterminal solenidion, as long as that on leg I, 1 ventral simple seta located at midsegment and 3 similarly-shaped end setae. Leg III : Coxa has 2 setae, one median, simple, the other anteriorly placed, shell-like. Trochanter with 2 anterior, approximate, shell-like setae. Femur as in leg II. Genu bears 2 shell-like setae, on dorsum and venter. Tibia with 3 shell-like setae, 2 dorsal, the other on venter, where another simple seta is also located. Tarsus without solenidion, otherwise as in leg II, but one of the terminal setae is broadened and forked. Leg IV : Chaetotaxy of coxa, trochanter and femur as in leg I, that of genu, tibia and tarsus as in leg III, a similar forked seta occurring here also. All legs with small (4-5 μ) claws, shorter than their respective stalks. Tenent hairs on empodia of all legs subequal to claws. Measurements of legs I-IV (from base
Fig. 2-4: *Caudacheles khayaë* sp. nov., female.

2. — Palpus. 3. — Venter of opisthosoma. 4. — Genu, tibia and tarsus of leg I.
of trochanter to tip of claw), 152, 125, 135 and 150 µ, respectively. Length of idiosoma 310 µ, with gnathosoma 410 µ, greatest width (between legs II and III) 185 µ.

Live mite reddish.

Male and immature stages not seen.

Type locality and habitat: Rehovot, Israel, on bark of *Khaya nyasica* (Meliaceae), collected July 15, 1967. Holotype in author's collection.

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