



3-30-1970

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Recommended Citation

Grabowski, William B. (1970) "A new species of oribatid mite (Cryptostigmata: Oribatellidae)," *Great Basin Naturalist*: Vol. 30 : No. 1 , Article 2.

Available at: <https://scholarsarchive.byu.edu/gbn/vol30/iss1/2>

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A NEW SPECIES OF ORIBATID MITE
(CRYPTOSTIGMATA: ORIBATELLIDAE)

William B. Grabowski¹

The genus *Oribatella* Banks, 1895, contains 22 species, many of which were poorly described in the light of modern systematic standards. In reviewing the Oribatellidae (Grabowski, 1967), I found that little attention was given to such characteristics as chaetotaxy of the legs, dorsal and ventral hysterosomal setation, morphology of the gnathosoma, arrangement of genital setae, and presence and placement of porose areas. Such details are included in this description.

Oribatella anomola n. sp.

(Figures 1-5)

DIAGNOSIS

This representative differs from other species of *Oribatella* in the peculiar morphology of the lateral and ventral setae on the genu, tibia, and tarsus of legs one and two, and the lateral and pro-lateral setae on tarsus one. All of these setae are enlarged, barbed, and spindle shaped. The laterals of the genu and tibia are the most striking in this aspect and are readily evidenced under low power of the microscope. I have assigned the name *anomola*, meaning strange or different.

DESCRIPTION

Lamellae deeply bifid. lamellar cleft U-shaped to block U-shaped, lateral denticles with two to four notches on anterolateral borders, lateral areas of lamellar cusps, finely ridged, mesial denticles lying close together for two-thirds their length distally, then separating to form the cleft (Figure 1); lamellar hairs long, barbed, interlamellar hairs reaching to tips of lamellar hairs, thinner by comparison, barbed, and inserting laterad, close to dorsosejugal suture; pseudostigmatic organ elongate, clavate, finely barbed distally for two-thirds its length.

Hysterosoma approximately as broad as long, pteromorphs shallowly decurved, their entire surface finely wrinkled; eight pairs of smooth, medium length setae arranged as given in Figure 1; three pairs of porose areas, each occurring on a slight elevation; A_a located near setae D_a within a triangle formed by scapular seta C_2 and notogastral setae D_a and L_a , A_1 equidistant between setae D_m and L_m , A_2 equidistant between L_m and L_p (Figure 1).

Camerostome oval, rutella diarthric, one pair of short, finely barbed posterior infracapitular (mental) setae, one pair of median in-

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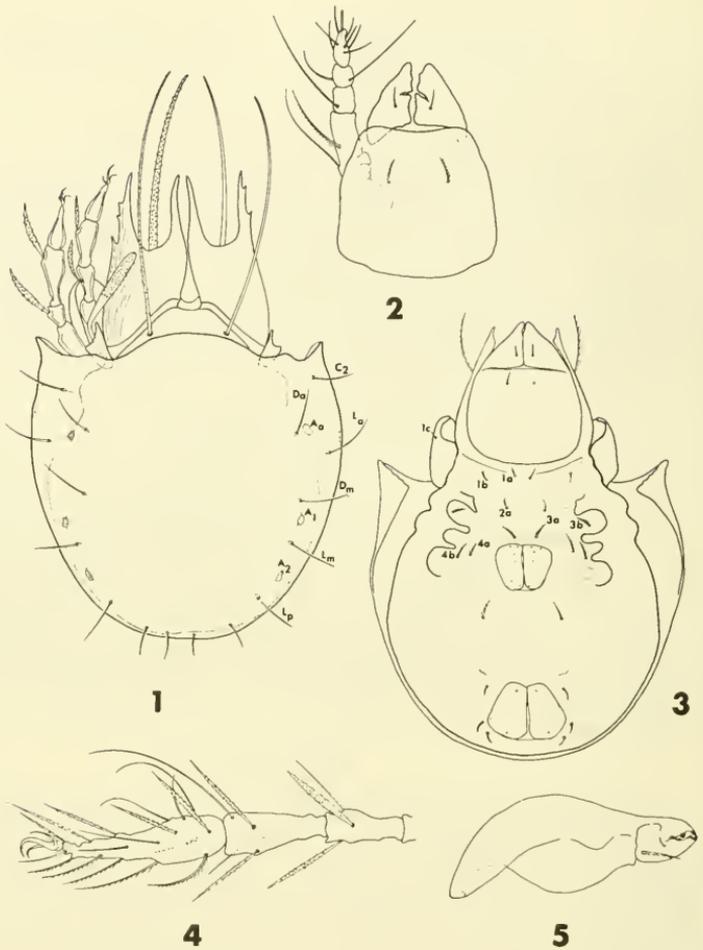


Figure 1. Dorsal view, *Oribatella anomola* n. sp., legs one and two, right side, shown, illustrating modified setae.

Figure 2. Infracapitulum, pedipalps, and rutellum, ventral view, *O. anomola*.

Figure 3. Ventral view, legs omitted.

Figure 4. Genu, tibia, tarsus, leg one, greatly enlarged.

Figure 5. Chelicera, lateral view.

fracapitular (rutellar) setae, entire surface of infracapitulum finely punctuate; setation of pedipalp segments as given in Figures 2, 3; chelicerae chelate (Figure 5).

Ventral surface finely punctate, coxisternal setae 3a-b, and 4a-b finely barbed, 1a-c and 2a smooth, 3c and 4c absent from all specimens examined; genital plate with six pairs of setae: g_1 and g_2 on anterior edge of each cover, g_3 , g_4 , and g_5 in a line oriented mesially and running parallel to opening, g_6 in posterior median corner of

plate, one pair of short, barbed aggenital setae posterior and lateral to genital plate; anal plate with two pairs of setae, fissure "iad" present anterolaterally to each cover of anal plate, three pairs of short, barbed adanal setae lateral and posterior to plate.

Lateral setae on genu and tibia of legs one and two enlarged, spindle-shaped, distinctly barbed, laterals on tarsus one smaller by comparison, but of same morphology, iteral and proral setae also similar in morphology but more elongate and thin, no tectal setae, two whip-like solenidia, famulus elongate, pointed, unguinal, subunguinal, and subtarsal setae elongate, barbed on ventral aspect (Figures 1, 4).

Color, dark brown; total length, 445 μ ; length propodosoma, 150 μ , width propodosoma, 145 μ , length hysterosoma, 305 μ width hysterosoma, 325 μ . 15 Specimens examined; eight taken from leaf litter (unidentified) near Legion Lake, and seven from moss (unidentified) mixed with duff, near Nordbeck Game Preserve, Custer State Park, South Dakota, 27 and 28 August, 1968, by T. A. Woolley.

DISCUSSION

This representative is unique owing to the peculiar morphology of certain of the leg setae described above. The absence of coxisternal setae 3c and 4c is difficult to explain and the dorsal setal nomenclature must remain provisional. Little information is available concerning developmental stages of these features. However, the pattern of dorsal setation demonstrated here appears standard for most species of *Oribatella*, although previous workers have reported from eight to eleven pairs of dorsal, notogastral (hysterosoma) setae (Grabowski, 1967).

Notching of the lateral dentes in *Oribatella* is a rather common occurrence and has been reported in the following: *O. angulosa* Csiszar, 1962, *O. berlesei* Tuxen, 1945. *O. brevicornuta* Jacot, 1934, *O. brevicuspida* Hammer, 1961, *O. dentaticuspis* Ewing, 1909, *O. dudichi* Willman, 1937, *O. illuminata* Hammer, 1961, *O. meridionalis* Berlese, 1908, *O. prolongata* Hammer, 1961. *O. puertomonttensis* Hammer, 1962, *O. quadrispinata* Hammer, 1962, *O. reticulatoides* Hammer, 1955, and *O. tenuis* Csiszar, 1962. The new species described here appears closely related to either *O. brevicornuta* or *O. meridionalis*. This judgment is based on similarities of the lamellae, lamellar cleft, lamellar hairs, pseudostigmatic organ, and arrangement of the genital setae.

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