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A new species of *Malaconothrus* BERLESE from Yucatan, Mexico (*Acari*: *Oribatida*: *Malaconothridae*)

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ABSTRACT. *Malaconothrus calcehtokensis* sp. nov. from a cave in Yucatan, Mexico is described. Body and leg chaetotaxy are illustrated.

Key words: acarology, *Oribatida*, *Malaconothridae*, new species, cave, Yucatan, Mexico.

Malaconothridae

Malaconothrus Berlese, 1904

TYPE SPECIES
Lohmannia (*Malaconothrus*) *egregia* BERLESE, 1904.

DIAGNOSIS
No trichobothrium. Legs monodactylous. From 4 to 6 pairs of genital setae. Rostral setae not on a mucro, normally separated. Legs short, thick, tarsi stout. Small-sized, yellowish or greyish oribatid mites.

DISTRIBUTION
Cosmopolitan genus, with three species in the Nearctic Region: *Malaconothrus gracilis* VAN DER HAMMEN, 1952, *M. mollisetosus* HAMMER, 1952 and one undescribed species from Alaska and Canada. The following species have been recorded from South America: *M. robustus* HAMMER, 1958 from Bolivia, *M. pulcher* HAMMER, 1961 from Perú, *M. mollisetosus* HAMMER, 1952 from Argentina, *M. pilosellus* BALOGH and MAHUNKA, 1969 from Brazil, *M. silvaticus* PÉREZ IÑIGO and BAGGIO, 1985 from Brazil,

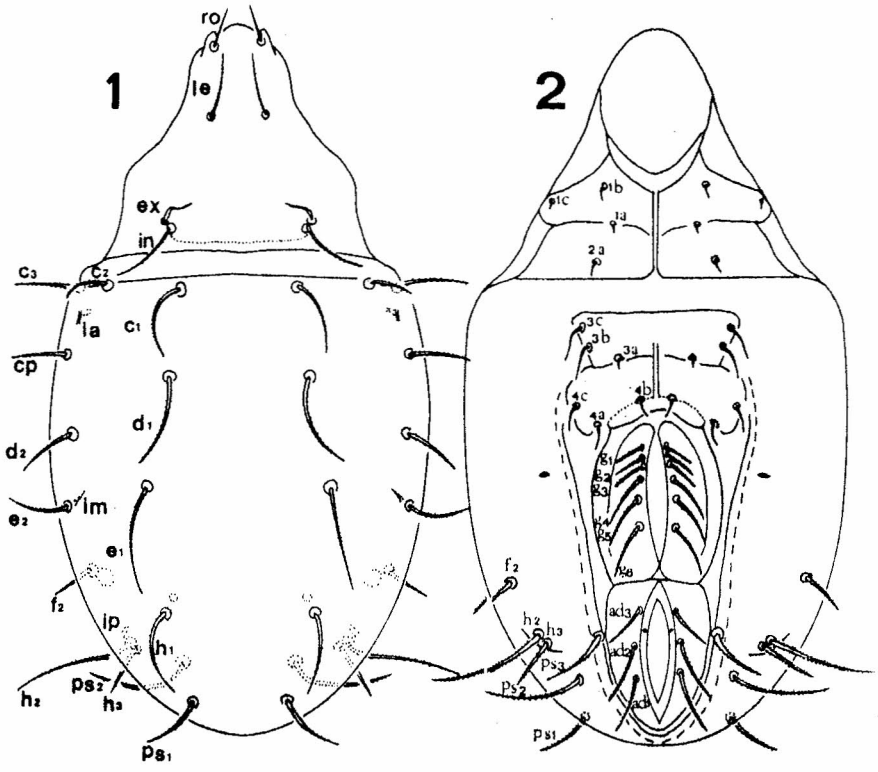
M. hauseri MAHUNKA, 1983 from Paraguay, *M. peruensis* HAMMER, 1961 from Perú, *M. neoplumosus* BALOGH and MAHUNKA, 1969 from Bolivia, *M. translamellatus* HAMMER, 1958 from Argentina, Perú, Bolivia and Chile. HAMMER (1958) described *M. atuelanus*, *M. conicus* and *M. angulatus* from Argentina. In Mexico the genus has been reported only from the caves of Guerrero State (PALACIOS-VARGAS et al. 1985).

Malaconothrus calcehtokensis sp. nov.

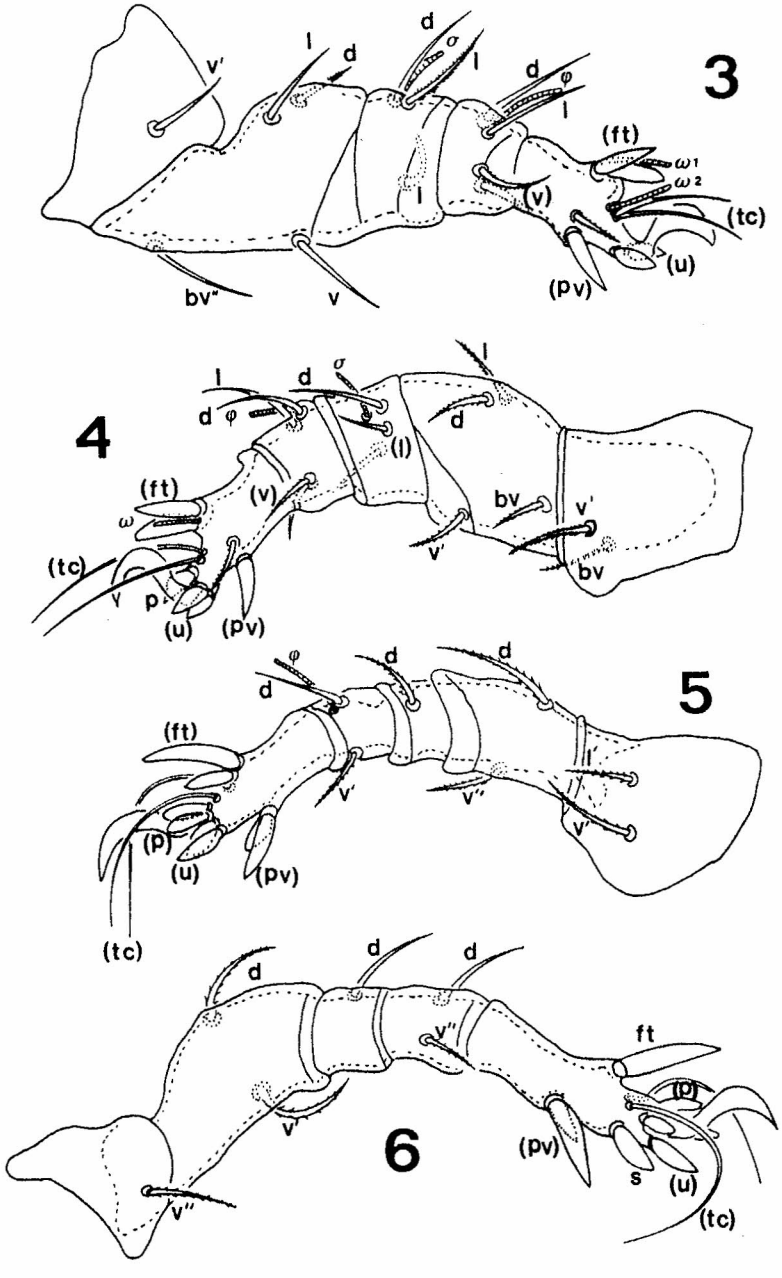
(Figs 1-6)

DIAGNOSIS

Six pairs of genital setae. No posterior V-shaped ridges on the cerotegument. Setae slightly barbulated and curved, not stiff. Cerotegument finely granular. Small posterior ridge at the setae h1 and h2. Primary chaetotaxy: ntg: (15+15); g: (6+6); ag: (0+0); an: (0+0); ad (3+3).



1-2. *Malaconothrus calcehtokensis* sp. nov.: 1 - dorsal view, 2 - ventral view



3-6. *Malaconothrus calcehtokensis* sp. nov., leg chaetotaxy: 3 - leg I, 4 - leg II, 5 - leg III, 6 - leg. IV

DESCRIPTION

Measurements of 10 specimens (in μm): Mean body length: 443, range 404-453. Mean maximum width: 226, range 209-246.

Prodorsum: Subtriangular in shape (Fig. 1), with two small lateral projections. Setae in long (35 μm), slightly barbulated; distance between setae in 86 μm; seta ex 16 μm, setae la 45 μm, distance between setae la 36 μm, setae ro 16 μm. All setae slightly barbulated. Cerotegument finely granular. Body color clear brown.

Notogaster: Shape of field ellyptical (Fig. 1). 15 pairs of notogastral setae, slightly barbulated and acuminate. Length of setae from 36 (c) to 48 μm (e and f). One pair of slightly developed ridges bearing setae h1 and h2. Three pairs of lyrifissures. One pair of glands close to setae f2. Close to the base of seta h1 there is one foveolated area.

Genito-anal region: (Fig. 2). Genital plate with 6 slightly barbulated setae, the three anterior setae very close to each other, and smaller. No aggenital setae. Anal plate without setae, only a pair of minute alveoli present, adanal plate with 3 setae, anterior short and the two posterior longer and slightly barbulated.

Legs: monodactylous, claws smooth. Leg chaetotaxy from trochanter to tarsus (famulus included; solenidia in parentheses): leg I: 1-4-3(1)-4(1)-8(2); leg II: 1-5-3(1)-4(1)-9(1); leg III: 2-2-1-2(1)-10; leg IV: 1-2-1-2-10. The ulnal and fastigial setae are short, thick spines, iteral setae thin and well developed.

Variation: A case of asymmetry of a notogastral seta was observed. Barbulation of the notogastral and genital setae very weak and in some specimens can not be observed. Sometimes the cerotegument can be joined to the notogaster giving the appearance of small cuticular ridges, close together at the posterior part of the notogaster.

TYPE MATERIAL

Mexico: Gruta de Calcehtok, Yucatán, 8-XI-1993, from faces of hematophagous bats. J. G. PALACIOS and A. CHÁVEZ. Holotype female, 14 female paratypes, 1 male and 10 female paratypes on microscope slides. About 120 paratypes in alcohol. Two paratypes (slides) and two alcohol-preserved paratypes will be deposited in each of the following institutions: Museo de Histoira Natural de la Ciudad de México, México, D. F., Lab. de Acarología del Instituto Politécnico Nacional, Instituto de Biología, College of Environmental Science and Forestry, State University of New York. The remaining material will be kept in the author's institution.

REMARKS

Malaconothrus calcehtokensis sp. nov. is larger than *M. robustus* HAMMER, 1958 (410 μm), *M. pulcher* HAMMER, 1961 (370 μm), *M. mollisetosus* HAMMER, 1952 (400 μm), but its notogastral setae are much smaller. *M. mollisetosus* has two pairs of small anal setae, *M. pulcher* has only one pair of alveoli, lacking anal setae, *M. pulcher* has only one pair of alveoli, lacking anal setae, similar to *M. calcehtokensis* sp. nov. The cerotegument of the new species is granular, while in the other two

species it is reticulate. The new species lives in the faeces of bats in a cave, while species of the genus are known from humid moss.

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