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Oribatida Americana 4 : Mexico I (Acari)  
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NEUE UND INTERESSANTE MILBEN  
AUS DEM GENFER MUSEUM XLIII \*.  
*ORIBATIDA AMERICANA 4: MEXICO I (ACARI)*

BY

S. MAHUNKA<sup>1</sup>

## ABSTRACT

**New and interesting mites from the Geneva Museum XLIII. Oribatida Americana 4: Mexico I (Acari).** — A study concerning the Oribatid fauna of Central and South American soils is presented. Four Oribatid species are discussed from Mexico. Two species (*Cosmochthonius desaussurei* sp. n. and ? *Oxyoppia genavensium* sp. n.) are new to science.

With this article I propose to begin a serial work with the title "Oribatida americana" containing the elaboration of materials from Central and South America deposited in the Geneva Museum. Three of my earlier works (MAHUNKA 1979, 1980a, and 1980b) also belong to this series. This series purports to be complementary to the results of the Hungarian Soil Zoological Expeditions to South America.

In the present contribution I introduce some Oribatids collected by Dr. P. Strinati in Mexico, near Chilpancingo. The material, kindly submitted for study by Dr. B. Hauser, Curator of the Arthropod Collection of the Geneva Museum, contains 4 species of which 2 are new to science.

The examined material comes from following localities:

- Mex. 2. = Mexico: prélèvement de terre en forêt de pins près de l'autoroute Iguala-Mexico, ca 40 km au sud de Mexico, 10. IV.1978. leg. P. Strinati (B)<sup>2</sup>.
- Mex. 3. = Mexico (Guerrero); près Chilpancingo, prélèvement de terre au fond de la doline au fond de laquelle s'ouvre la grotte Sima del Borrego. 9.IV.1978. leg. P. Strinati (B).
- Mex. 4. = Mexico (Guerrero): près Chilpancingo, prélèvement de guano dans la grotte Sima del Borrego. 9.IV.1978. leg. P. Strinati (B).

\* XX: Beitrag zur Kenntnis der Oribatiden-Fauna Griechenlands (Acari). (*Revue suisse Zool.* 81: 569-590, 1974).

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<sup>2</sup> (B) = Extraction by BERLESE funnel in Geneva.

## LIST OF THE IDENTIFIED SPECIES

**Aphelacaridae** Grandjean, 1954*Aphelacarus acarinus* (Berlese, 1910)

Localities: Mex. 2; Mex. 3. (6 Ex.)

**Cosmochthoniidae** Grandjean, 1947*Cosmochthonius desaussurei* sp. n.**Brachychthoniidae** Balogh, 1943*Brachychochthonius immaculatus* Forsslund, 1942

Locality: Mex. 4. (1 Ex.)

**Oppiidae** Grandjean, 1954*?Oxyoppia genavensium* sp. n.

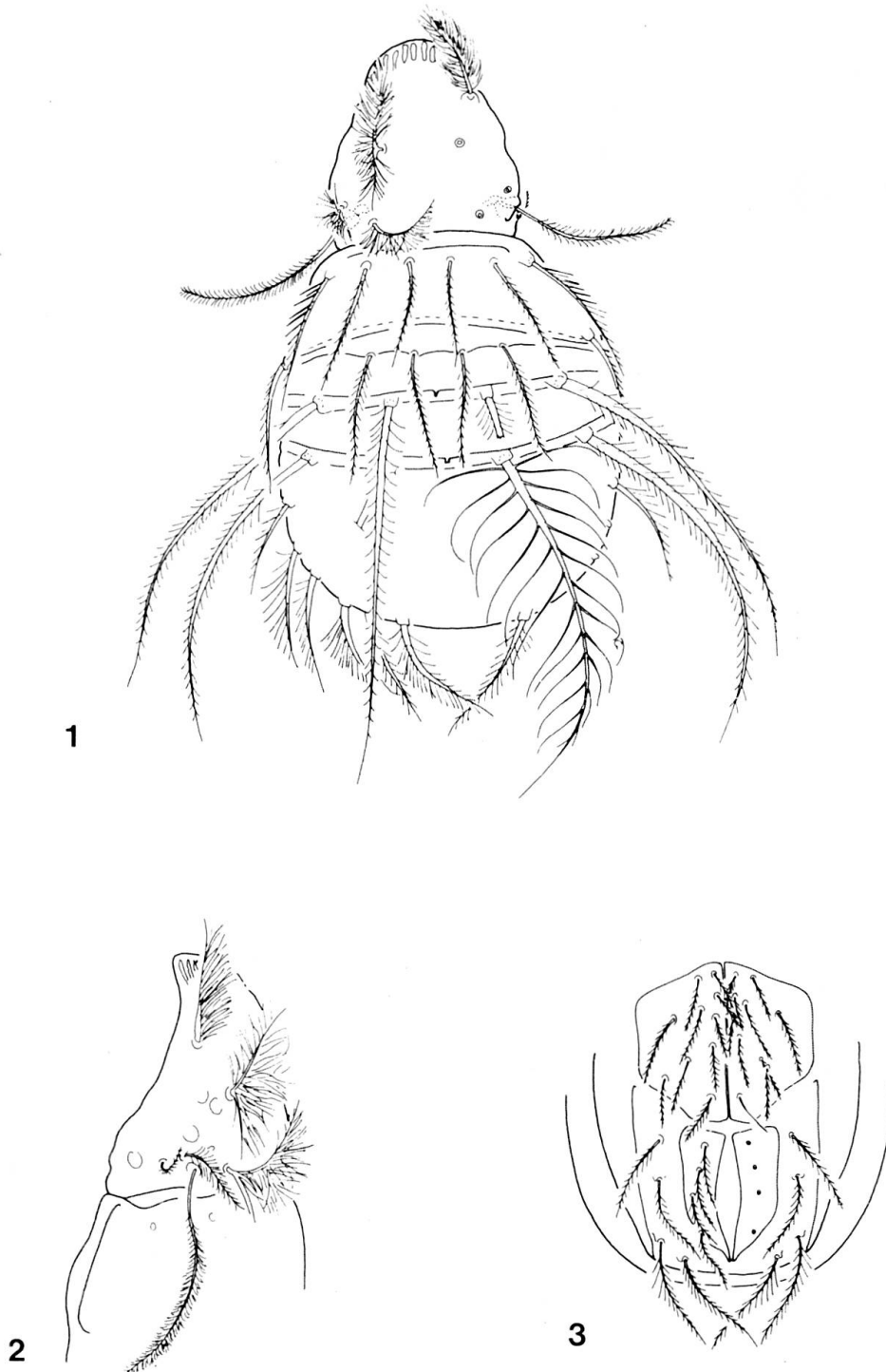
## DESCRIPTION OF NEW SPECIES

***Cosmochthonius desaussurei* sp. n.**

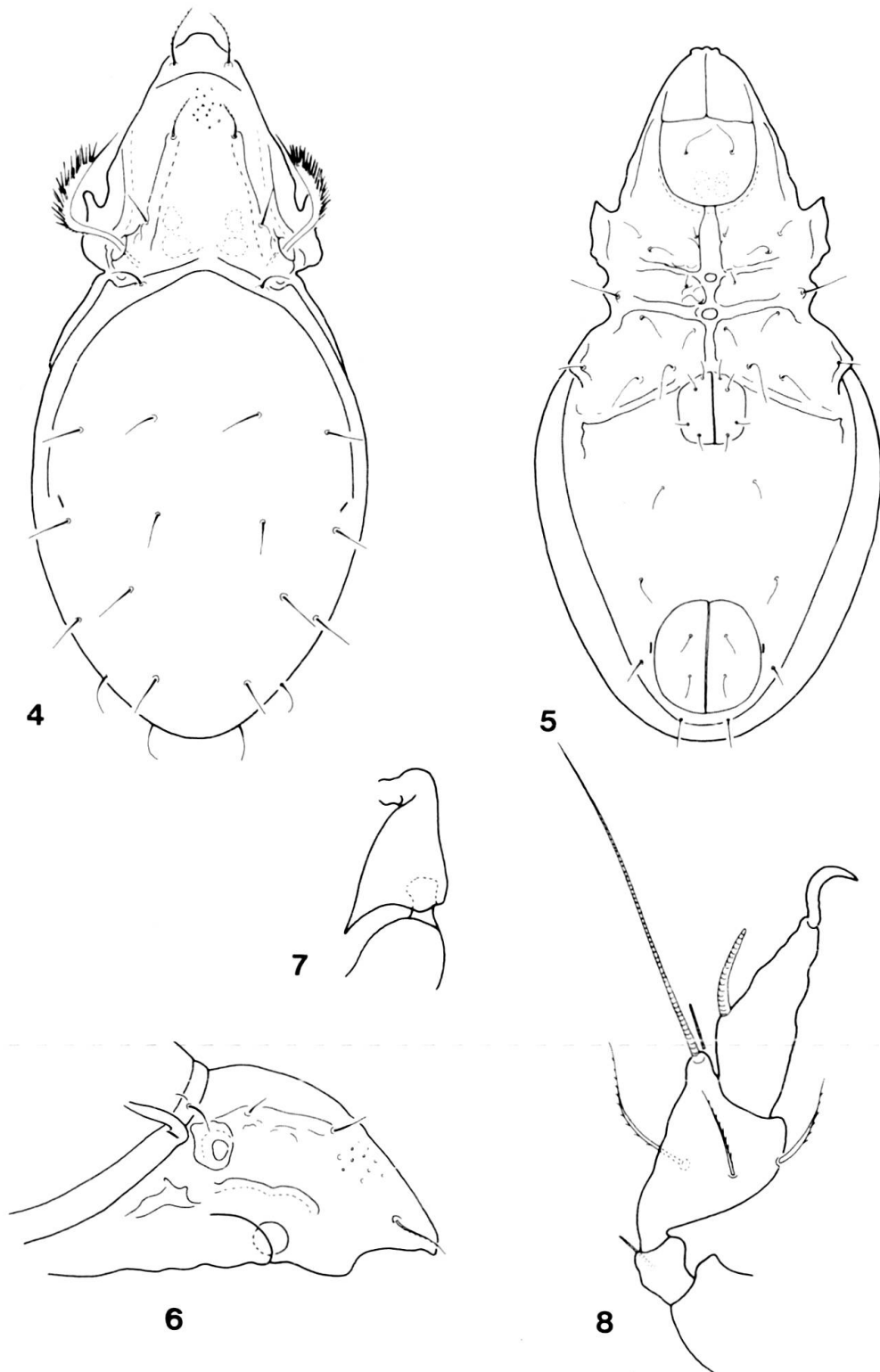
Measurements: Length: 287  $\mu$  (tritonympha: 230  $\mu$ ), width: 172  $\mu$  (trinympa: 132  $\mu$ ).

Dorsal side (Fig. 1): Surface of body smooth. Rostrum rounded, behind its apex 4 pairs of longitudinal, narrow, characteristic spots present; all divided by transversal laths. Lamellar hairs T-shaped, other hairs of prodorsum penicillately ciliated excepting hairs *exp*. Hairs *exa* and *exp* arising immediately beside each other (Fig. 2). Sensillus very long, thin, densely ciliated. Notogastral setae  $e_1$ ,  $e_2$ ,  $f_1$  and  $f_2$  rigid, much longer than the rest. All considerably ciliated, cilia of hairs  $f_1$  more than five times longer than those of hairs  $f_2$ ; so this hairs plumiform. Hairs *h* and *ps* originating on posterior margin of body are setiform, not thickened, also densely ciliated.

Ventral side: All hairs of ventral plates ciliated. Posterior part of genital plates strongly attenuating posteriorly. Anoadanal region (Fig. 3) broad, angled posteriorly.



FIGS. 1-3. — *Cosmochthonius desaussurei* sp. n.  
1: dorsal side; 2: prodorsum from lateral side; 3: anogenital region.



FIGS. 4-8. — ? *Oxyoppia genavensium* sp. n.

4: dorsal side; 5: ventral side; 6: prodorsum from lateral side; 7: femur of leg IV; 8: leg. I.

Material examined: Holotype: Mex. 3.; 1 paratype (tritonympha), collected with the holotype. Holotype in the MHNG<sup>+</sup>, paratype in the HNHM<sup>++</sup> (498-PO-79).

Remarks: The new species clearly differs from the others species of the genus *Cosmochthonius* Berlese, 1910 by the form of the prodorsal spots, the smooth surface of the notogaster and, above all, by the enormous difference between the hairs  $f_1$  and  $f_2$ .

The new species is dedicated to one of the greatest swiss zoologists, H. de Saussure (1829-1905), from Geneva, pioneer in the exploration of Mexico's nature.

### ? *Oxyoppia genavensium* sp. n.

Measurements: Length: 240-249  $\mu$ , width: 120-126  $\mu$ .

Dorsal side (Fig. 4): Rostrum wide, obtuse. Rostral hairs arising on surface of prodorsum, on a chitinous thickening, near to lateral margin of prodorsum. Surface of prodorsum also with some foveolae. Costulae straight, converging, thick. Lamellar hairs arising on distal end of costulae, interlamellar hairs also on basal part of lamellae. Sensillus directed forward, its distal part thickened, outer margin with cilia arranged in 2-3 longitudinal rows. Bothridia with basal tubercle, in opposite position with lateral tubercle of notogaster. Dorso-sejugal suture medially interrupted. Notogaster with short crista (Fig. 6). 10 pairs of notogastral hairs, hairs *ta* slightly thickened, others simple, rigid, needle-shaped, comparatively short.

Ventral side (Fig. 5): Apodemes well developed. Sternal apodema with elliptical openings at *ap. 2* and *ap. sej.* Epimeres with a weak polygonal sculpture. Epimeral hairs comparatively long, 4 pairs of genital, 1 pair of aggenital, 2 pairs of anal and 3 pairs of adanal hairs. Hairs *ad*<sub>3</sub> in praeanal position.

Legs: Solenidium  $\varphi_1$  originating on a long, thick chitinous peg of leg I (Fig. 8). Trochanter of leg IV (Fig. 7) with a long triangular cusp.

Material examined: Holotype: Mex. 4; 3 paratypes: collected together with holotype. Holotype and 1 paratype in the MHNG, 2 paratypes in the HNHM (499-PO-79).

Remarks: The new species may be characterized by the following features:

1. Prodorsum with a well developed costula;
2. Anterior margin of notogaster with crista and a spiniform apophysis.

<sup>+</sup>MHNG = Muséum d'Histoire naturelle, Genève.

<sup>++</sup>HNHM = Hungarian Natural History Museum, Budapest.

This new species is named in honour of the zoologists from Geneva, H. de Saussure and P. Strinati.

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