Opusc. Zool. Budapest, VIII, 2, 1968

Some New Oribatids (Acari) from Indonesian Soils

By

J. BALOGH and S. MAHUNKA*

The working up of Oribatid specimens, collected by H. HAMMAN in Java and sent by Prof. Dr. W. KÜHNELT, Vienna, for identification to Budapest, was partially done by J. CSISZÁR (5) who described 15 new species. Investigations carried out by the present authors resulted in the discovery of further new species, some of which is described below. An evaluation of the entire material will be done after its complete identification.

The type-material is deposited in the Zoological Department of the Hungarian Natural History Museum, Budapest (abbreviated: HNHM), and in the National Science Museum, Tokyo (abbreviated NSMT).

1. Eremobelba perrugosa n. sp.

(Figs. 1—2)

Length: 554—617 μ, width: 315—365 μ.

Prodorsum: Rostral apex rounded. Sensillus setiform, latero-reclinate, acute, smooth. Lamellar hair short, arising on a longitudinal and chitinous excrescence, projecting beyond rostral apex. Interlamellar hair considerable shorter, rostral and exostigmatal hairs still shorter. A clavus between bothrydia, and chitinous, longitudinal thickenings, connected with and anteiorly to, bothrydia. A transversal lath in front of interlamellar hairs.

Pedotecta: All 4 pedotecta well developed, laterally projecting.

Notogaster: Entire surface ornamented with a large irregular rugulosity. Eleven pairs of notogastral hairs present, all relatively short, straight, finely ciliated.

Epimeral region: Characteristical 5—6-branched asteriform hairs situated intermingling with normal hairs. Apodemata weakly developed.

Anogenital region: 6 pairs of genital hairs; and 16 pairs of aggenital-adanal neotrichy present, their majority short, setiform. Three pairs of hairs originating behind anal plate longer than others, their apices flagellately curved.

*Dr. JÁNOS BALOGH, ELTE Állatrendszertani Tanszék (Zoosystematical Institute of the L. Eötvös University), Budapest, VIII. Puskin u. 3, and Dr. SÁNDOR MAHUNKA, Természettudományi Múzeum Állattára (Zoological Department of the Hungarian Natural History Museum), Budapest, VIII. Baross u. 13.

Material examined: 1 ex. (Holotype: 0—201—67): Yanlappa, Java, 1 Febr., 1956, leg: H. HAMMAN; 1 ex. (Paratype: 0—202—67): data as for Holotype. Holotype deposited in the HNHM, Paratype in the NSMT.

A similar dorsal structure was as yet unknown in the genus *Eremobelba*.

2. **Striatoppia opuntiseta** n. sp.

(Figs. 3—4)

Length: 213 μ, width: 109 μ.

Prodorsum: widely rounded. Sensillus proclinate and inclinate, apically strongly incrassate, with 3 rows of short setae. Prodorsum with a short costula, resembling lamella and translamella. Rostral hair short, setiform, lamellar hair widened, spoon-shaped interlamellar hair setiform, smooth. Interlamellar region with 2 pairs of oval areolae.

Notogaster: Entire surace ornamented with longitudinal lines, dorsosejugal suture laterally with 2 weak tubercles. Ten pairs of hairs present, hairs *ta* and p_1 essentially smaller than others, penicillate. Other hairs expanded to a phylliform shape, covered with short setae.

Epimeral region: penicillate and simple hairs intermingling, apodemata robust.

Anogenital region: 5 pairs of genital, 1 pair of aggenital, 2 pairs of anal, and 3 pairs of adanal hairs present. Hair ad_3 in a preanal position. Adanal and aggenital hairs ciliate.

Material examined: 1 ex. (Holotype: 0—203—67): Bubulak, 28 Dec., 1957, leg: H. HAMMAN; 1 ex. (Paratype: 0—204—67): data as for Holotype. Holotype deposited in the HNHM, Paratype in the NSMT.

Of the known species in the genus *Striatoppia*, it is only *S. foliosa* (JACOT, 1937), *S. machadoi* BALOGH, 1958, *S. papillata* BALOGH & MAHUNKA, 1966, and *S. niliaca* (POP, 1960), which have phylliform, expanded, or penicillate lamellar hairs. Of these, the first two display a simple interlamellar hair, in this respect resembling the new species. However, the hairs of *S. papillata* are clavate, whereas the hairs of *S. machadoi* have longitudinal costulae, and it also has but 4 pairs of genital hairs. The hairs of the new species, though phylliform, are smooth, and there are 5 pairs of genital hairs.

3. **Otocepheus (Acrotocepheus) heterotrichus** n. sp.

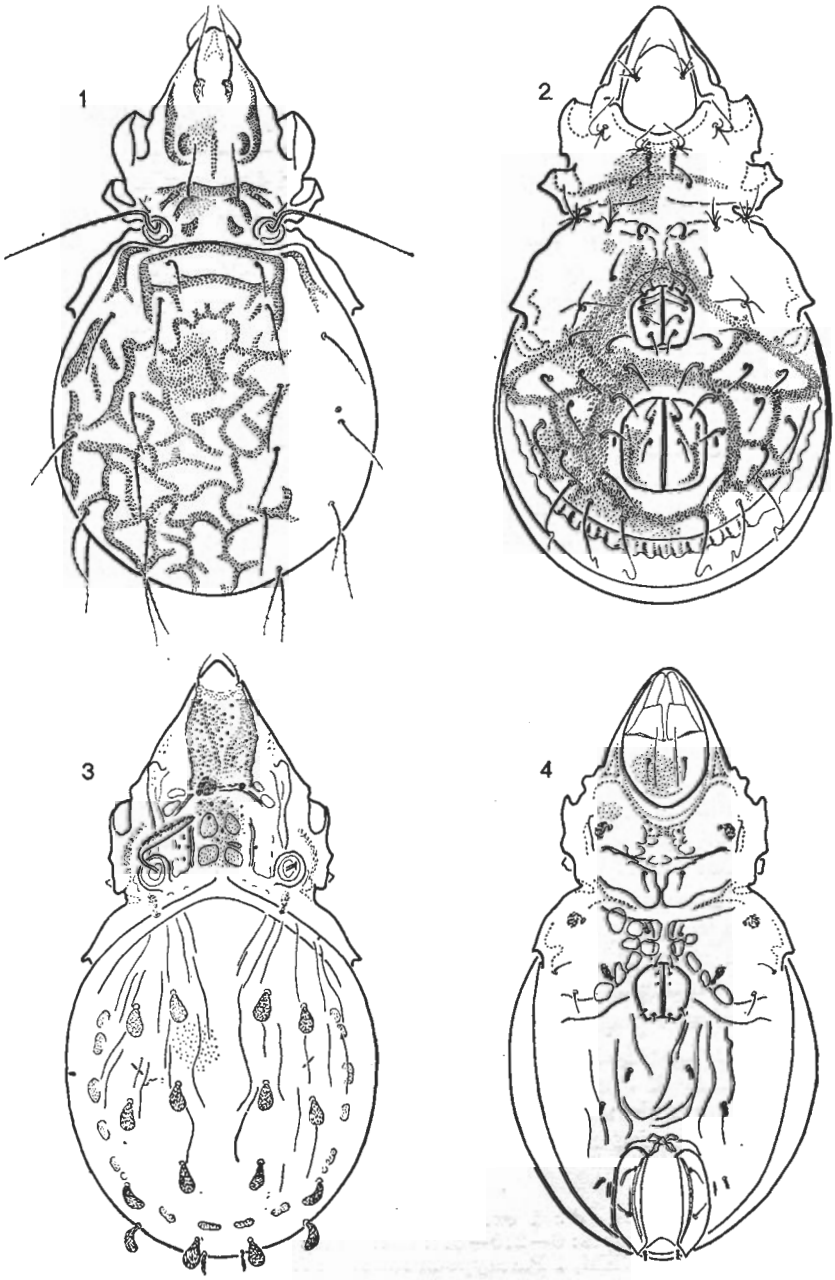
(Figs. 5—6)

Length: 1156—1202 μ, width: 421—470 μ.

Prodorsum: Median prodorsal condyles separate, small. Lamellar hair long, arcuate, interlamellar hair shorter. Sensillus slightly fusiform, apically truncate, laterally with two minute projections. Lateral lamelliform projection *spa. l.* straight, extending to base of rostral hair.

Pedotecta: similar to type of genus.

Notogaster: Lateral notogastral condyles large, wide, anterior margin only weakly arcuate, with rounded corners. Distance between two condyles extre-



Figs. 1—4. *1—2: Eremobelba perrugosa* **n.** sp. — *3—4: Striatoppia opuntiseta* **n. sp.**

mely small. Ten pairs of notogastral hairs present, of highly different lengths, hair *ta* long, hairs *te* and *s*, as well as hair r_3 minute, all others longer than hair *ta*. Among short hairs, apex of hair *te* and *ti* obtuse, these hairs bacilliform, apex of r_3 attenuating, setiform. Notogastral surface evenly punctate.

Epimeral region: Setal formula: 3—1—3—3, apodemata thin, apodemata 2 and apodemata sejugal long.

Anogenital region: Genital plate dark brown, with 4 pairs of short hairs. Anal plate with 2 pairs of hair originating neat its margins. Adanal fissure *(iad)* removed from anal plate, in almost a transversal position. Among adanal hairs, ad_1 and ad_2 of nearly equal length, hair ad_3 considerably shorter, and originating further from ad_2 than distance between hairs ad_1 and ad_2.

Material examined: 1 ex (Holotype: 0—205—67): Puntjak, *Tea sinensis*, 28 August, 1956, leg: H. HAMMAN; 1 ex. (Paratype: 0—206—67): data as for Holotype. Holotype deposited in the HNHM, Paratype in the NSMT.

Among its nearest allies, it is only *Otocepheus (A.) excelsus* AOKI, 1965, which shows similarly great differences in size betwen the dorsal hairs. The new species can be easily separated from it by the long hair *ta*, the shorter hairs r_3 and an_3, as well as the shape of the sensillus.

4. **Xylobates vermiseta** n. sp.

(Figs. 7—8)

Length: 338—363 μ, width: 156—175 μ.

Prodorsum: Rostral apex straightly truncate. Sensillus fusiform, reclinate, apically pointed, throughout evenly ciliated. Lamellae long, lamellar hair originating behind lamellar apex and introrse to lamella, strongly and characteristically incrassate, smooth. Interlamellar hair short, arcuate, ciliate. Prodorsum ornamented with foveolae.

Notogaster: Bordering line between prodorsum and notogaster absent. Notogastral foveolae bigger than those of prodorsum; ten pairs of hairs present, all thin, short. Four pairs of areae porosae present, A_4 situated adjacent to one another and immediately near posterior margin of body.

Epimeral region: Apodemata thin, weakly developed.

Anogenital region: Genital plate smooth, with 5 pairs of hairs. One pair of aggenital, 2 pairs of anal, and 3 pairs of adanal hairs present. Anal plate foveolate, similar to dorsal surface. Hair ad_1 in a postanal, hair ad_3 in a praeanal situation. Pore *iad* immediately adjacent to anal plate, in a transverse position.

Material examined: 1 ex. (Holotype: 0—209—67): 21 Dec., 1956, leg: H. HAMMAN; 4 ex. (Paratypes: 0—210—67): data as for Holotype. Holotype and 3 Paratypes deposited in the HNHM, 1 Paratype in the NSMT.

The presence of the 5 pairs of genital hairs renders its relegation to the genus difficult, but it were at present superfluous to establish a new genus on this sole feature. The characteristically incrassate lamellar hair delimits the new species from all known *Xylobates* and also other allied taxa.

Figs. 5—8. *5—6: Otocepheus (Acrotocepheus) heterotrichus* n. sp., *a:* sensillus, *b:* prodorsum, lateral side. — *7—8: Xylobates vermiseta* n. sp.

ZUSAMMENFASSUNG

Einige neue Oribatiden-Arten (Acari) aus Indonesien

Die Verfasser setzen die Aufarbeitung des von H. HAMMAN in den Jahren 1956—57 in Java gesammelten Oribatiden-Materials, aus welchem J. CSISZÁR im Jahre 1961 bereits 15 neue Arten beschrieben hat, fort. Vorliegende Arbeit erörtert weitere 4, für die Wissenschaft neue Milbenarten, u. zw. die folgenden: *Eremobelba perrugosa, Striatoppia opuntiseta, Otocepheus (Acrotocepheus) heterotrichus,* und *Xylobates vermiseta* n. spp. Die Holotypen der neuen Arten sind im Naturwissenschaftlichen Museum zu Budapest, ihre Paratypen hingegen im National Science Museum zu Tokio zu finden.

LITERATUR

1. AOKI, J.: *Some Oribatid mites (Acarina) from Laysan Island.* Pacific Insects, 6, 1964, p. 649—664.
2. AOKI, J.: *A preliminary revision of the family Otocepheidae (Acari, Cryptostigmata). I. Subfamily Otocepheinae.* Bull. Nat. Sci. Mus., 8, 1965, p. 259—341.
3. BALOGH, J.: *Oribatides nouvelles de l'Afrique tropicale.* Rev. Zool. Bot. Afr., 58, 1958, p. 1—34.
4. BALOGH, J. & MAHUNKA, S.: *The scientific results of the Hungarian soil zoological expedition to the Brazzaville-Congo. 33. The Oribated mites (Acari) of the Brazzaville-Congo II.* Opusc. Zool. Budapest, 7, 1967, p.
5. CSISZÁR, J.: *New Oribatids from Indonesian soils (Acari).* Acta Zool. Hung., 7, 1961, p. 345—366.
6. CSISZÁR, J. & JELEVA, M.: *Oribatid mites (Acari) from Bulgarian soils.* Acta Zool. Hung., 8, 1962, p. 273—301.
7. WALLWORK, J.: *Some Oribatei (Acari: Cryptostigmata) from Tchad (2nd series).* Rev. Zool. Bot. Afr., 72, 1965, p. 83—108.