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## ORIBATIDS FROM SABAH (EAST MALAYSIA) VI

(Acari: Oribatida)

*(Acarologica Genavensis LXXXIV)<sup>1</sup>*

BY

**Sándor MAHUNKA\****(Ms soumis le 5.12.1995, accepté après révision le 26.1.1996)*

## ABSTRACT

**Oribatids from Sabah (East Malaysia) VI (Acari: Oribatida).** (*Acarologica Genavensis LXXXIV*). - A new species is described from Sabah, it represents also a new genus in the family *Haplozetidae*: *Kinabaluella* gen. n. with the type species *K. porcella* sp. n.

## INTRODUCTION

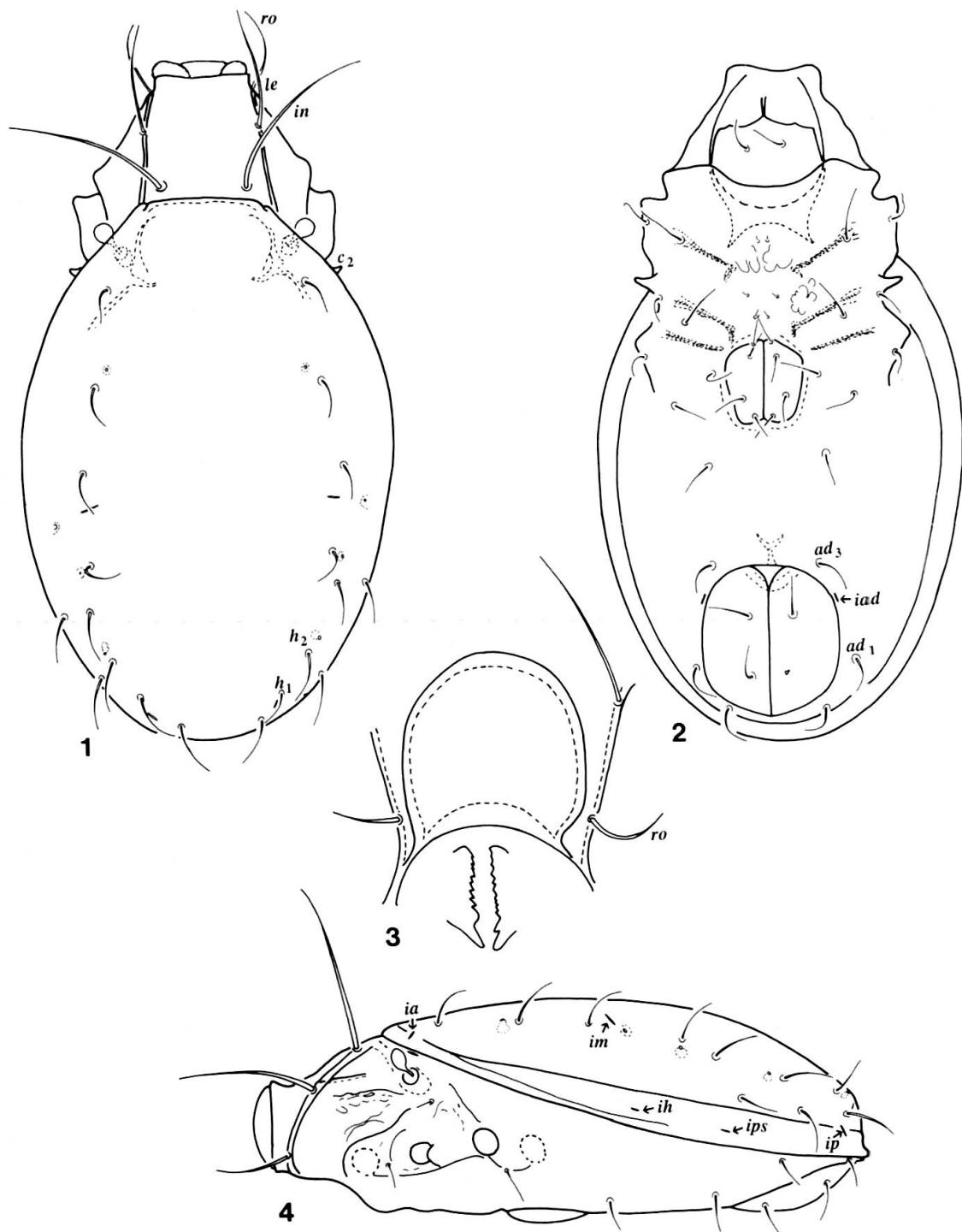
The Oribatid fauna of Sabah, formerly Northern Borneo, has been continuously discussed in my previous contributions (MAHUNKA 1987a,b, 1988, 1991, 1995; MAHUNKA & MAHUNKA-PAPP 1988). Presently I give the description of a new species which also represents a new genus (*Kinabaluella* gen. n.) displaying sexual dimorphism, an inadequately known phenomenon among the *Haplozetidae* and rare among the oribatids.

I have already given details about the origin of the material and the general goal of the work in my earlier papers. I am very grateful to Dr Bernd Hauser, Head of the Arthropod Department of the Museum d'Histoire naturelle, Geneva, for allowing me to study this valuable material. This research program was also partly sponsored by the Hungarian Research Fund (OTKA 17629).

The descriptions and the terminology applied in this contribution follow those of my previous papers (e.g. MAHUNKA 1994).

<sup>1</sup> New title for the series "Neue und interessante Milben aus dem Genfer Museum I. – LX." and "New and interesting mites from the Geneva Museum LXI. – LXXX."

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FIGS 1-4.

*Kinabaluella porcella* gen. n., sp. n. - 1: body in dorsal view (male), 2: body in ventral view (male), 3: rostrum in frontal view (male), 4: body in lateral view (male).

## DESCRIPTION

**Kinabaluella** gen. n.

**D i a g n o s i s :** Family *Haplozetidae*. Secondary sexual dimorphism. Male bearing a large, nasiform rostral apex, like a pig snout, with an anterior membranous (?) ring (Figs 1, 3, 4 and 6). Rostral apex of female normal. Lamellae narrow, continuing in prelamellae, sublamellae short. Tutorium present. Bothridium and the basal part of sensillus is covered by the notogaster. Dorsosejugal suture straight (in male) or arched forward (female). Ten pairs of simple notogastral setae arising nearly in two longitudinal rows, four pairs of sacculi and five pairs of lyrifissures present. Gnathosoma normal, digastric labiogenal articulation, chelicera also typical for the family. Palp 4 segmented. Epimeral setal formula: 3 - 1 - 3 - 3. Anogenital setal formula: 4 - 1 - 2 - 3. Lyrifissures *iad* in adanal position. All legs tridactylous. Some setae on tarsi I-IV and solenidium φ of tibia IV with a rounded, dilated head.

**T y p e s p e c i e s :** *Kinabaluella porcella* sp. n.

**R e m a r k s :** A considerable secondary sexual dimorphism is not a common feature in the oribatids. In this family this feature has not been recorded so far (BALOGH & BALOGH 1984, 1992). Among them some other characteristics are also singular (e.g. the notogastral setae are clearly arranged in a longitudinal row, dilated leg setae, etc.). The form of rostrum is also peculiar and on this basis the new genus is distinguishable from all congeners. These features justify the establishment of a new genus.

**D e r i v a t i o n o m i n i s :** After the Kinabalu mountain, the highest mountain (4101 m) of Borneo.

**L o c a l i t y :**

Sab-82/21: SABAH (West Coast Residency): Mt Kinabalu: "Summit Trail" (sentier reliant la "Power Station" au sommet), prélèvement de litière et d'humus sous des coussinets de mousses et de lichens, 3900 m, 30.IV.1982, extraction par appareil Berlese, leg. B. Hauser.

***Kinabaluella porcella* sp. n.**

**M a t e r i a l e x a m i n e d :** Holotype ♂: Sab-82/21, 2 paratypes from the same sample. Holotype and 1 paratype ♀: deposited in the Muséum d'Histoire naturelle, Genève and 1 paratype ♂ (1495-PO-94): deposited in the Hungarian Natural History Museum, Budapest, with identification number of the specimen in the Collection of Arachnida.

**M e a s u r e m e n t s . .** Length of body: 538-560 µm, width of body: 295-314 µm. As far as measurements are concerned no significant difference exists between the two sexes. The sexual dimorphism is restricted to the prodorsum and affects slightly also the dorsosejugal region. Consequently, both sexes are described here independently, but only in these respects.

**P r o d o r s u m :**

Female: Rostrum rounded, lamellae long, continued in prelamallae, the downward arching of which fuses with the rostral margin. Lamellar cusps absent but lamellar



FIGS 5-8.

*Kinabaluella porcella* gen. n., sp. n. - 5: prodorsum in dorsal view (female), 6: prodorsum in lateral view (male), 7: leg IV, 8: genu, tibia and tarsus of leg I.

and rostral setae arising on small lamellar tubercles. Sublamella short, not reaching bothridium. Interlamellar region weakly rugose. Lateral part (Fig. 6) with a well sclerotized, irregular lath (tutorium?) preceded by a polygonal sculpture. Rostral, lamellar and interlamellar setae simple setiform, smooth, exobothridial setae filiform. Sensillus partly covered by the humeral region of the notogaster (Fig. 1), clavate, with a smooth head.

Male: Interlamellar region without any sculpture.

#### **N o t o g a s t e r :**

Female: Anterior margin of notogaster convex (Fig. 5), without a lateral incision. Notogastral setae arranged in longitudinal rows marginally, the distance between  $c_2 - c_2$  is the same as that between  $h_3 - h_3$ . Only setae  $h_1 - h_1$  and  $h_2 - h_2$  sitting more closely.

Male: Dorsosejugal suture straight, with a lateral incision. The position of setae identical as in the female.

**L a t e r a l p a r t o f p o d o s o m a :** Pedotecta I large, pedotecta II-III small, discidium as a narrow band (Fig. 4). The tutorium well visible in lateral view, as is the position of lyrifissures *ih* and *ips*.

**V e n t r a l r e g i o n s :** No difference observable between male and female. Epimeral surface ornamented by irregular spots. Apodemes as shown in Fig. 2. All setae in the anogenital region very fine, sometimes filiform. Setae *ad*<sub>3</sub> in preanal position, lyrifissures *iad* situated in adanal position.

**L e g s :** All legs tridactylous, a weak heterodactyly present. The lateral claws with small tooth ventrally. Setal formulae of legs:

I: 1 - 5 - 2+1 - 4+2 - 19+2 - 3 (Fig. 8)

IV: 1 - 2 - 2 - 3+1 - 12 - 3 (Fig. 7)

**R e m a r k s :** Refer to the generic diagnosis.

**D e r i v a t i o n o m i n i s :** Named after the form of the rostrum, resembling a pig nose.

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