

# Oribatids from Singapore III (Acari: Oribatida) (Acarologica Genavensia XCII)

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ORIBATIDS FROM SINGAPORE III (ACARI: ORIBATIDA)  
(ACAROLOGICA GENAVENSIA XCII)<sup>1</sup>

BY

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(Ms. reçu le 2.12.1998, accepté le 14.12.1998)

ABSTRACT

**Oribatids from Singapore III (Acari: Oribatida).** (*Acarologica Genavensia XCII*). - Two new oribatid species from the tropical rain-forest Reserve of Bukit Timah are described: *Sumatrotritia murphyi* sp.n. (*Oribotritiidae*) and *Eremaeozetes hanswursti* sp.n. (*Eremaeozetidae*).

**Key-words:** Acari, Oribatida, Taxonomy, New species, Singapore.

INTRODUCTION

This is the third contribution on the moss mites of Singapore. The background to this research is set out in a previous paper (MAHUNKA, 1998). The results will be published in a series of small contributions.

DESCRIPTIONS

*Oribotritiidae* Grandjean, 1954

***Sumatrotritia murphyi* sp. n.**

(Figs 1-11)

**M a t e r i a l e x a m i n e d :** Holotype: Singapore: Bukit Timah Nature Reserve, forest litter and wood fragments, fallen tree on path; 2.VII.1969; leg. D.H. Murphy (D 12-4); 28 paratypes: from the same sample; 1 paratype: Singapore: Bukit Timah Nature Reserve; 13.VIII.1969; leg. D.H. Murphy (D 14-1). Holotype and 18 paratypes: MHNG<sup>3</sup>, 11 paratypes (1375-PO-89): HNHM<sup>4</sup>.

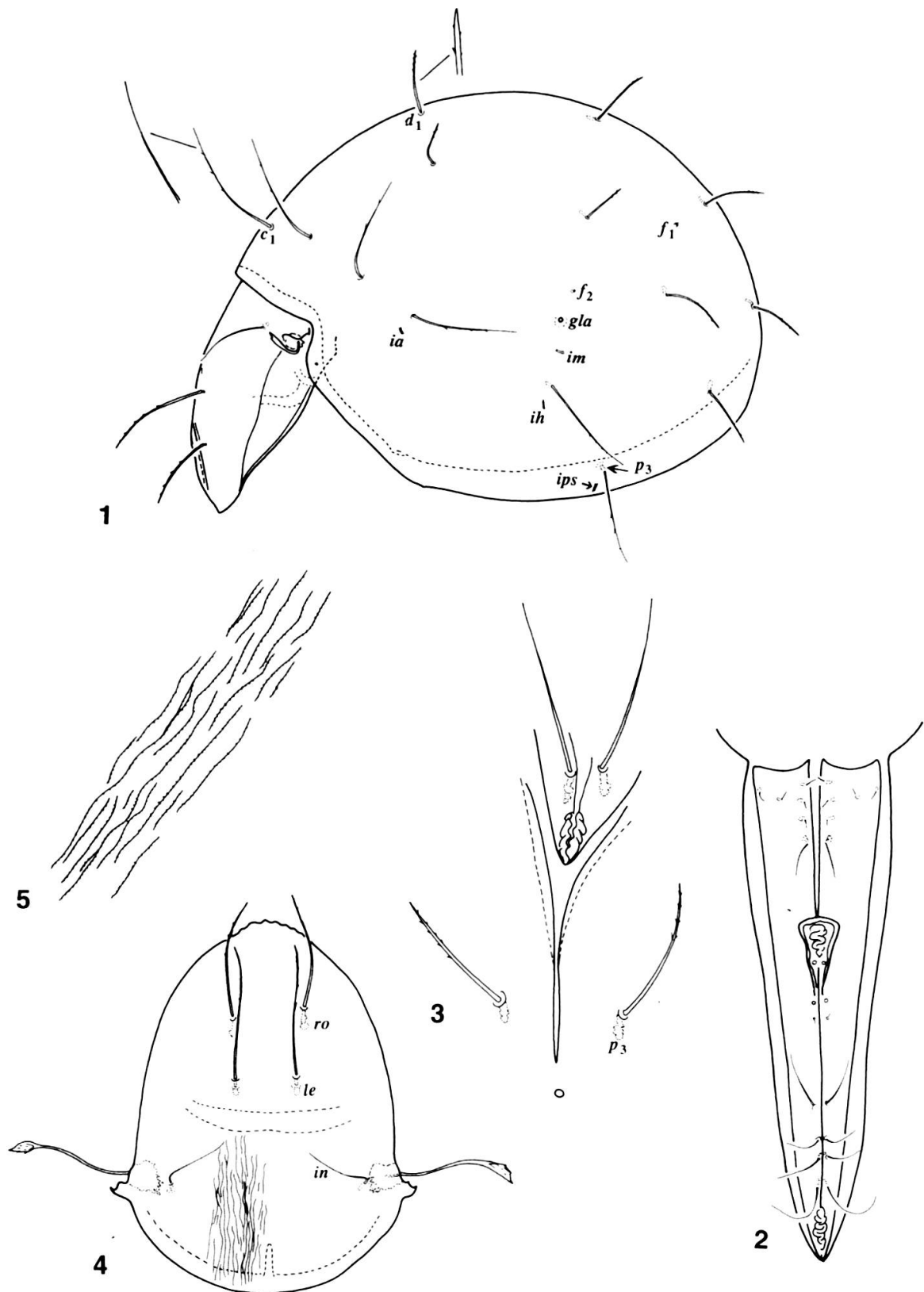
**M e a s u r e m e n t s .** - Length of aspis: 267-356 µm, length of notogaster: 486-648 µm, height of notogaster: 348-494 µm.

<sup>1</sup> New title of 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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<sup>3</sup> MHNG = deposited in the Muséum d'Histoire naturelle, Geneva.

<sup>4</sup> HNHM = deposited in the Hungarian Natural History Museum, Budapest, with identification number of the specimens in the Collection of Arachnida.



FIGS 1-5.

*Sumatrotritia murphyi* sp. n. - 1: body in lateral view, 2: anogenital region, 3: terminal fissure, 4: aspis in dorsal view, 5: sculpture of aspis.

**A s p i s :** Rostrum mostly crenate (Fig. 4). A well-developed median crista present (darker than the other parts of the aspis). Whole surface finely striated, these lines punctulate (Fig. 5). One long lateral carina on each side, which are fused with the lateral rim anteriorly. Bothridial squama large, bearing a sharp spine basally (Fig. 10). Rostral and lamellar setae thicker than the interlamellar ones, the latter originating close to trichobothrium. Sensillus long, with a small, dilated head (Fig. 11) and, asymmetrically, with some small spines on its surface.

**N o t o g a s t e r :** The surface ornamented by fine sculpture similar to that of prodorsum. Fourteen pairs of notogastral setae present, setae  $c_1$ ,  $c_2$ ,  $c_3$ ,  $cp$ ,  $h_3$  and  $p_3$  filiform all others much shorter and blunter at tip (Fig. 1). Four pairs of lyrifissures, a pair of glandular openings and vestigial setae  $f_1$  are visible on each side. Terminal fissures long (Fig. 3).

**G n a t h o s o m a :** Chelicera as shown in Fig. 9. Setal formula of palps: 0-1-8+1 (Fig. 7).

**E p i m e r a l r e g i o n :** Epimeral setal formula: 3-0-1-2!

**A n o g e n i t a l r e g i o n (Fig. 2):** Four pairs of genital and two pairs of aggenital setae present, posterior genital setae slightly longer than the others. Both triangles well developed. Among the anoadanal setae, two pairs reduced ( $an_1$ ) or minute ( $ad_3$ ), the other four pairs normal in length.

**L e g s :** All legs monodactylous, claws with well-developed ventral teeth. Leg chaetotaxy of the "complete type", with the following setal formulae:

I: 1 - 2 - 3+1 - 5+1 - 17+3 - 1 (Fig. 6)

II: 1 - 2 - 3+1 - 2+1 - 15+2 - 1

III: 1 - 2 - 2+1 - 2+1 - 10 - 1

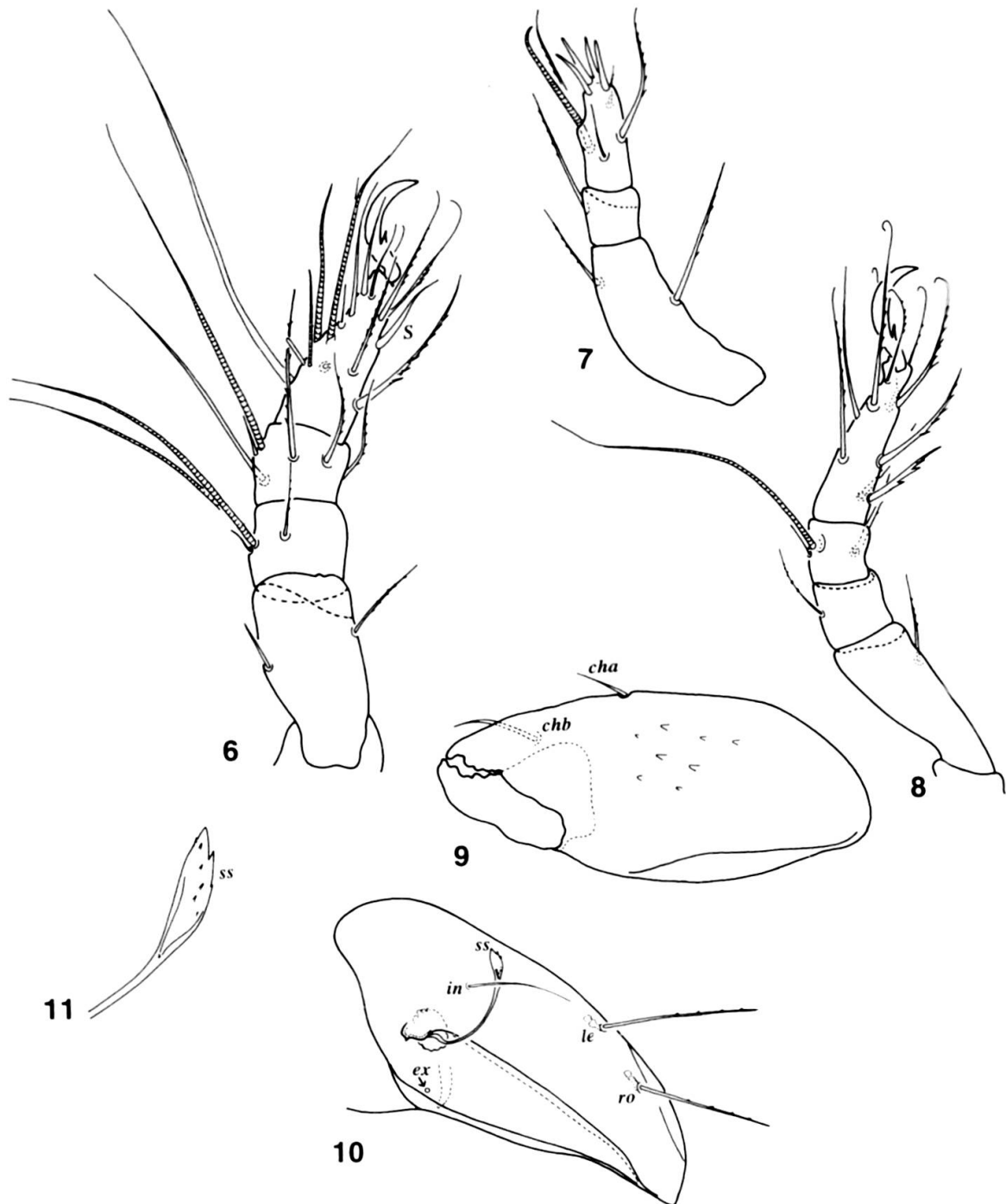
IV: 1 - 1 - 1 - 2+1 - 10 - 1 (Fig. 8).

**R e m a r k s :** The new species is easily accommodated in the genus *Sumatrotritia* Mahunka, 1989, it is the third species of the genus, the other species are: *S. inusitata* Mahunka, 1989<sup>5</sup> (Indonesia: Sumatra) and *S. elegans* Mahunka, 1991 (Malaysia: Cameron Highlands) (MAHUNKA, 1989, 1990, 1991).

Owing to its short genital setae it stands nearest to *Sumatrotritia elegans* Mahunka, 1989. However, the new species is distinguished from *S. elegans* by the short interlamellar setae (very long in *S. elegans*) and by the sculpture of the aspis.

**D e r i v a t i o n o m i n i s :** I dedicate the new species to Prof. Dr. D.H. Murphy, the renowned explorer of the fauna of Singapore and collector of this very interesting material (LOK, 1991; NG, 1991).

<sup>5</sup> This is the type species of the genus. Erroneously an incorrect manuscript name "*(Sumatrotritia xena* Mahunka, 1989)" was introduced by MAHUNKA 1991 (p. 350) for this species. Therefore *Sumatrotritia xena* Mahunka, 1991 has to be considered as a synonym of *Sumatrotritia inusitata* Mahunka,



FIGS 6-11.

*Sumatrotritia murphyi* sp. n. - 6: leg I, 7: palp, 8: leg IV, 9: chelicera, 10: aspis in lateral view, 11: sensillus.

*Eremaozetidae* Grandjean, 1959

***Eremaozetes hanswursti* sp. n.**

(Figs 12-17)

**M a t e r i a l e x a m i n e d :** Holotype: Singapore: Bukit Timah Nature Reserve, forest litter, wet streamside litter; 2.VII.1969; leg. D.H. Murphy (D 11-9); 2 paratypes from the same sample; 2 paratypes: Singapore: Bukit Timah, Nature Reserve, forest litter and wood fragments, fallen tree on path; 2.VII.1969; leg. D.H. Murphy (D 12-4). Holotype and 2 paratypes: MHNG, 2 paratypes (1376-PO-89): HNHM.

**M e a s u r e m e n t s . -** Length: 152-158  $\mu\text{m}$ , width: 97-102  $\mu\text{m}$ .

**P r o d o r s u m :** Lamellae very large, reticulate and covering the whole median part of prodorsum; basal region partly fused. Rostral setae dilated and bean-pod shaped. Lamellar setae setiform but narrow, originating far from lamellar cuspis, in a hollow of the inner lamellar margin (Fig. 12), directed medially. Interlamellar setae absent. Bothridium also completely covered by the basal part of lamellae, sensillus short, with a very wide and distinctly spiculate head.

**N o t o g a s t e r :** Median part of notogaster strongly protruding (Fig. 14), resembling a ring. Humeral apophyses well developed, curved, directed towards epimeral region. Ten pairs of notogastral setae present, some of them broken; setae *p* disc-like, the others bacilliform.

**V e n t r a l s i d e :** Mentum galumnoid, seta *h* placed marginally. Pedotecta I and 2-3 very large (Fig. 13). Discidium with a strong lateral spur. Whole surface covered by a heavy polygonate sculpture. Apodemes and borders were unobservable. Epimeral setal formula: 3-1-2-2. On the anogenital region there are very strong lateral tecta, extending beyond the notogastral outline. Six pairs of genital setae, the anterior pair slightly longer than the others. Aggenital setae minute. The anterior pair of anal setae dilated, horn-shaped, resembling the rostral setae, the other pair and three pairs of adanal setae also dilated (Fig. 13).

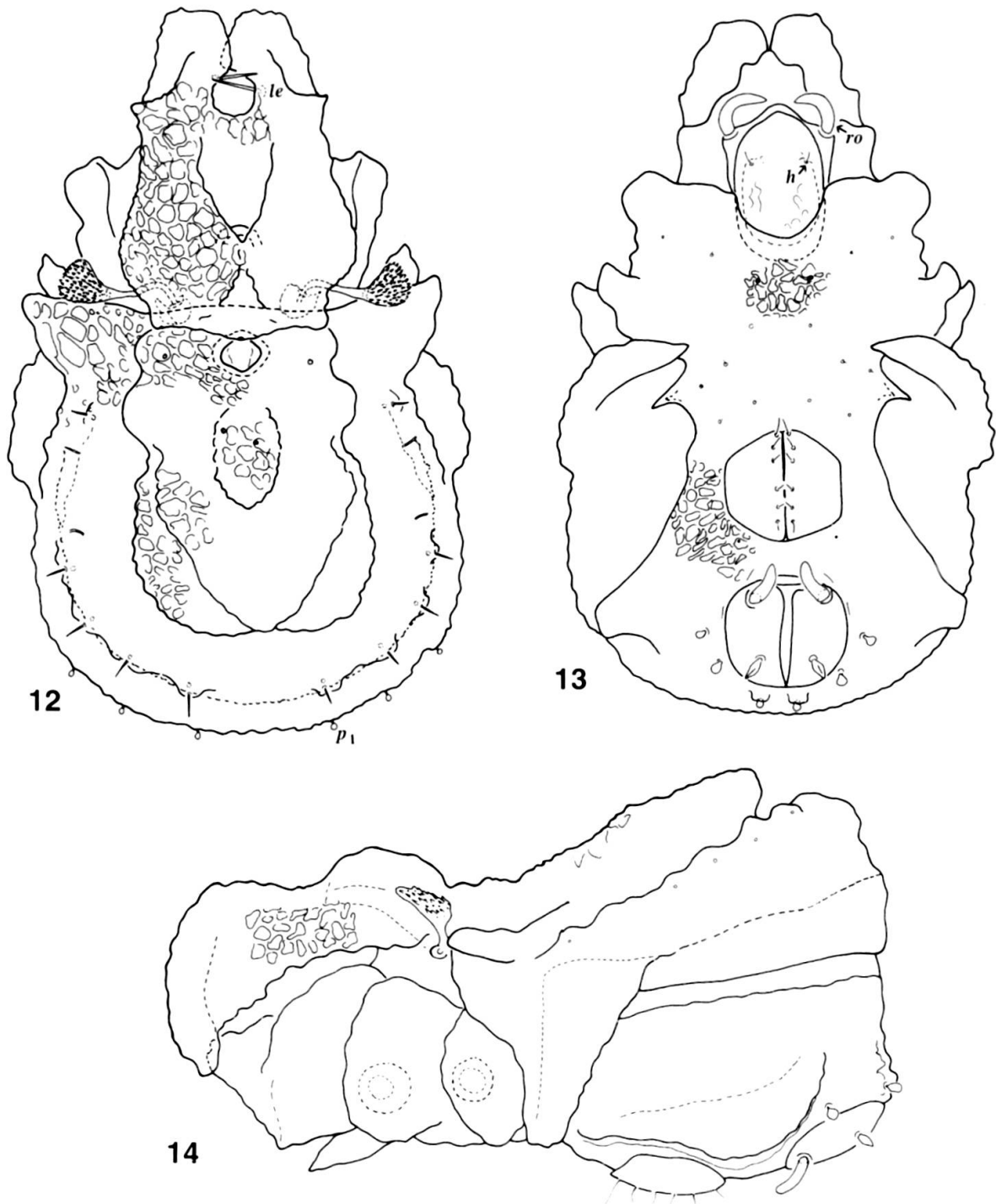
**L e g s :** All legs monodactylous. Trochanter and femur of legs III and IV covered by polygonal cerotegument, the other segments smooth. Their setal formula:

I: 1 - 4 - 3+1 - 4+2 - 16+2 - 1 (Fig. 15)

IV: 1 - 2 - 1+1 - 3+1 - 14 - 1 (Fig. 17).

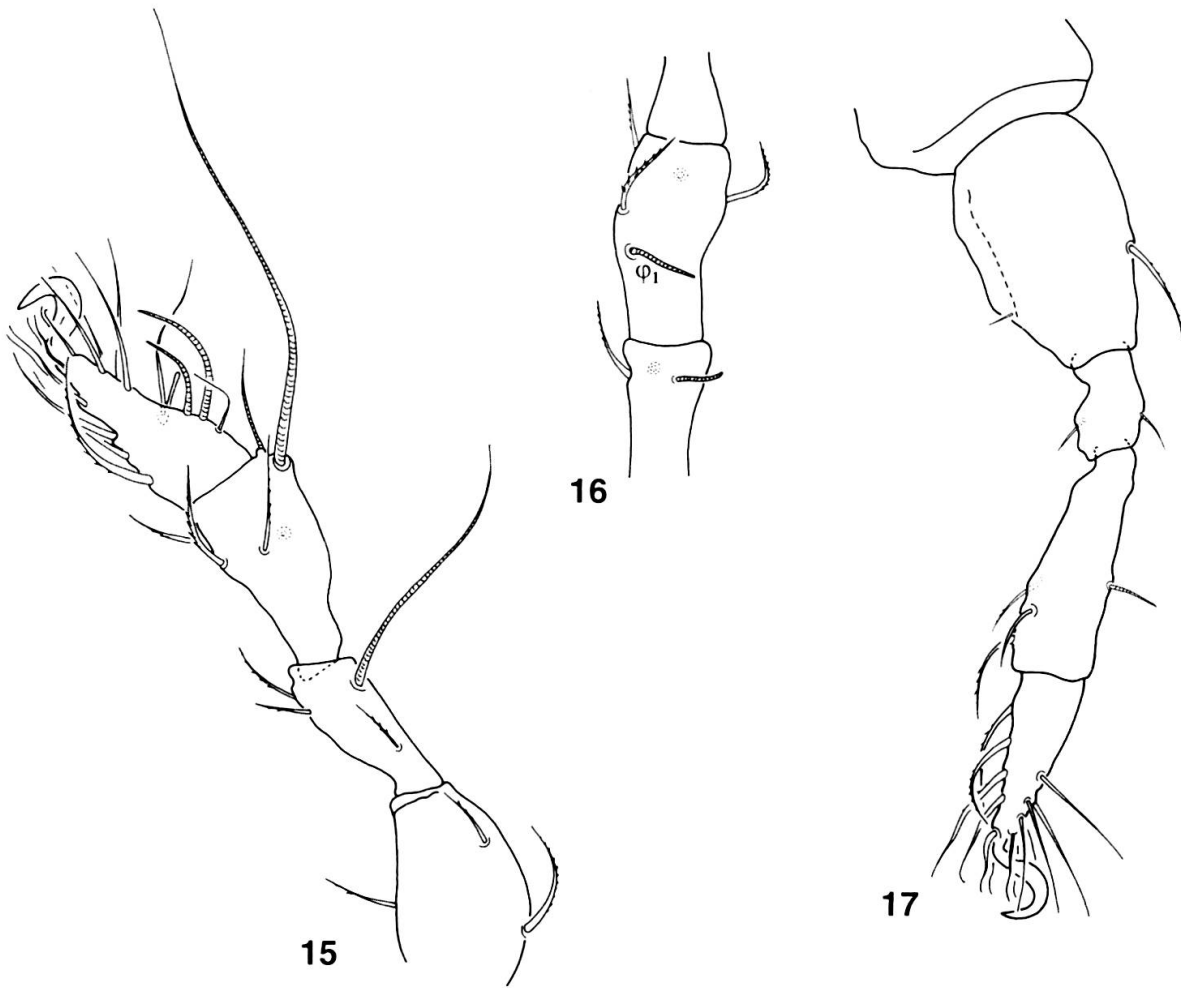
Solenidium  $\omega_1$  of leg II (Fig. 16) originating far from the anterior margin and directed inwards.

**R e m a r k s :** On the basis of the highly protruding median part of the notogaster the new species is related to *E. ephippiger* Balogh, 1968 (Papua New Guinea) and *E. woelkei* Piffil, 1972 (Nepal). However *E. woelkei* is tridactylous, the rather superficially described *E. ephippiger* is monodactylous, but the surface of the genital plate of *E. ephippiger* is sculptured (smooth in *E. hanswursti*) and the shape of the notogastral elevation is also different: bifurcate posteriorly in *E. ephippiger* and rounded posteriorly in *E. hanswursti*.



FIGS 12-14.

*Eremiaeozetes hanswursti* sp. n. - 12: body in dorsal view, 13: body in ventral view, 14: body in lateral view.



FIGS 15-17.

*Eremaozetes hanswursti* sp. n. - 15: leg I, 16: tibia and genu of leg II, 17: leg IV.

**Derivatio nominis:** The name comes from Hanswurst, a famous comic character of the popular “market theatre” in Vienna and is an allusion to the quite flamboyant appearance of the species.

#### ACKNOWLEDGEMENTS

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#### RÉSUMÉ

#### ORIBATES DE SINGAPOUR III (ACARI: ORIBATIDA) (ACAROLOGICA GENAVENSIA XCII)

Le travail contient la description de deux espèces nouvelles de la Réserve de forêt pluviale Bukit Timah de Singapour: *Sumatotritia murphyi* sp. n. (*Oribotritiidae*) et *Eremaozetes hanswursti* sp. n. (*Eremaozetidae*).

**Mots-clés:** Acariens, Oribates, taxonomie, nouvelles espèces, Singapour.



## REFERENCES

- LOK, C. K. 1991. The Dennis H. Murphy valedictory issue. *Raffles Bull. Zool.* 39: III-VIII.
- NG, P. K. L. 1991. Editorial. *Raffles Bull. Zool.* 39: I.
- MAHUNKA, S. 1989. New and interesting mites from the Geneva Museum LXV. Oribatids of Sumatra (Indonesia) I (Acari: Oribatida). *Revue suisse Zool.* 96: 673-696.
- MAHUNKA, S. 1990. A survey of the superfamily Euphthiracaroidea Jacot, 1930 (Acari: Oribatida). *Folia ent. hung.* 51: 37-80.
- MAHUNKA, S. 1991. New and interesting mites from the Geneva Museum LXVII. Soil inhabiting Ptychoid Oribatids from Malaysia (Acari: Oribatida). *Revue suisse Zool.* 98: 325-354.
- MAHUNKA, S. 1998. Oribatids from Singapore II (Acari: Oribatida). (New and interesting mites from the Geneva Museum LXXIII). *Archs Sci. Genève* 51: 305-310.