TROXOCOPTES MINUTUS gen. n., sp. n. (Acari, Acaridae), A NEW HYPOPUS PHORETIC ON A BEETLE **TROX COSTATUS***

by A. FAIN** and I.R. PHILIPS***

TROXOCOPTES MINUTUS gen. n., sp. n. (Acari, Acaridae), A NEW HYPOPUS PHORETIC ON A BEETLE **TROX COSTATUS***

by A. FAIN** and J.R. PHILIPS***

The new phoretic hypopus described herein was found by J.P. under the elytra of a small siamese beetle *Trox costatus*. The mites were settled individually into pits on the external surface of the elytra. It belongs to a new genus and species *Troxocoptes minutus* sp. n.

Troxocoptes gen. n.

Definition : Body very small, oval with posterior margin narrowly membranous. *Dorsum* : A well-developed sejugal furrow is present dorsally a little in front of the middle of the body. There are two poorly-sclerotized and pitted plates, one propodosomal, the other hysterosomal. *Venter* : Epimeres very poorly sclerotized, almost indistinct. Palposoma formed of a very short base wider than long bearing a pair of bisegmented palpal prolongations ; suctorial plate absent. Legs short and very thick ending in a short and thick claw with a vestigital pretarsus. *Chaetotaxy* : Setae *v i* vestigial, represented by their bases, *v e* thin and short ; *sc e* longer than *sc i* ; hysteronotal setae branched and displaced laterally, are present *d 1* to *d 5*, *l 1* to *l 5*, *h*. Leg chaetotaxy (I to IV) : Trochanters 1-1-1-0. Femora 1-1-0-0. Genua 2-2-0-0. Tibiae 2-2-1-1. Tarsi I and II with a very big dorso-preapical spine and 8 simple setae. Tarsi III and IV with 5 spines and 3 simple setae. *Solenidiotaxy* : Tarsus I and II with only *ω 1*. Tibiae 1-1-1-1. Genua 1-1-0-0.

---

* Accepted September 1th 1982.

** Institute for Tropical Medicine, Nationalestraat 155, 2000 Antwerpen, Belgium.

*** Babson College, Babson Park (Wellesley), Massachusetts 02157-0901 U.S.A.

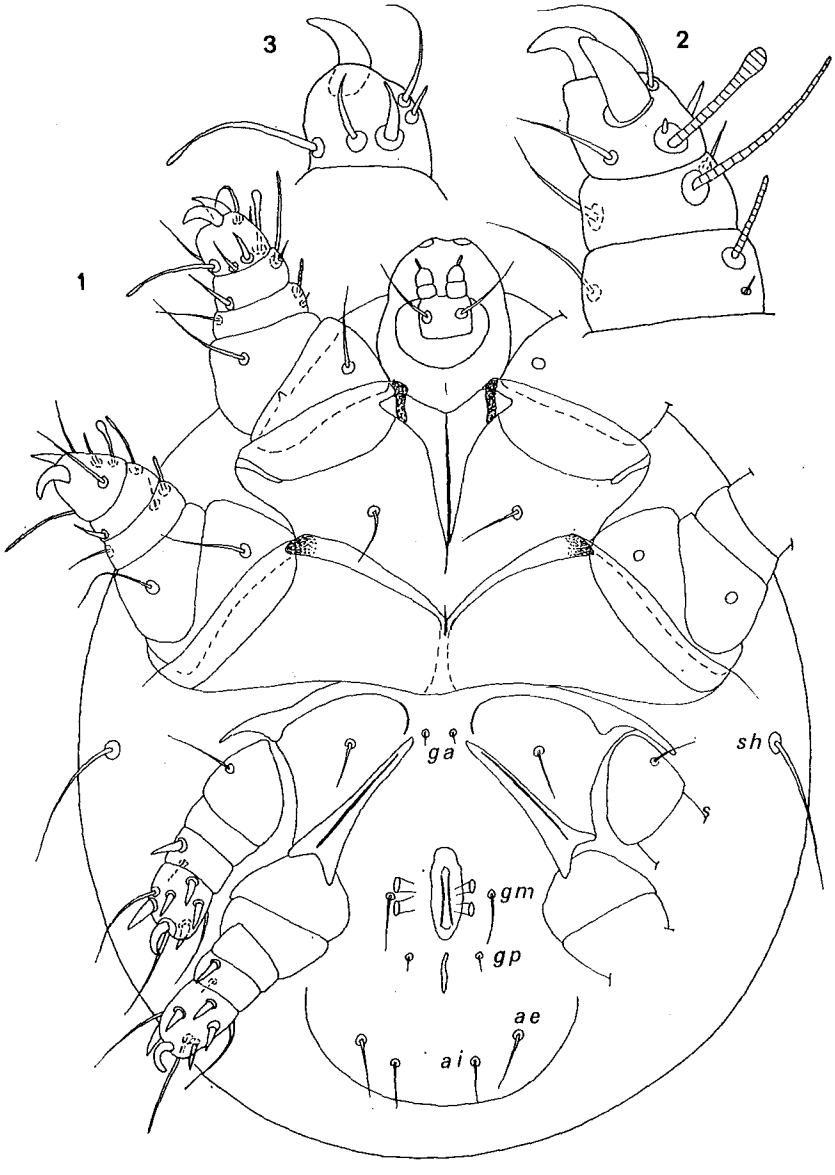

FIG. 1-3. — 1. *Troxocoptes minutus* sp. n. Hypopus, in ventral view ; 2. Genu, tibia and tarsus I in dorsal view ; 3. Tarsus I in ventral view.

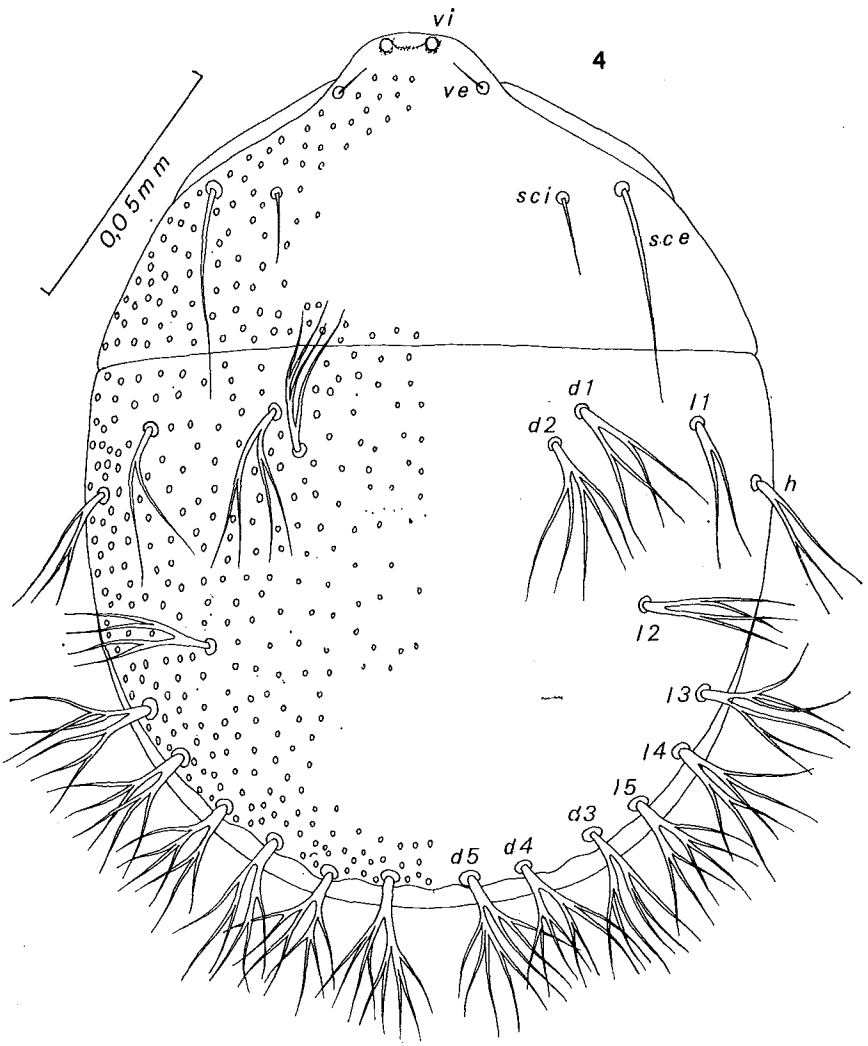

FIG. 4. — *Troxocoptes minutus* sp. n. Hypopus in dorsal view.

Type species : Troxocoptes minutus sp. n.

Troxocoptes minutus sp. n.

This species is known only from the hypopial form.
Hypopus (fig. 1-4) : Holotype 168 µ long, 133 µ wide. In 4 paratypes these measurements are 160 × 120 µ ; 165 × 129 µ ; 185 × 158 µ ; 195 × 155 µ (strongly flattened). Body slightly narrowed in anterior extremity. *Dorsum* : as described for the genus. *Venter* : Epimeres I fused in a rather long sternum. Epimeres II fused in the midline. Epimeres III almost fused with epimeres IV. All the ventral setae are short and thin except *sh* distinctly longer. There are 3 pairs of genitals and 2 pairs of anals. *Legs* : ending in a thick and sessile claw whose base is enveloped by a very short membranous pretarsus. Chaetotaxy as described for the genus.

Host and locality :
Holotype and 7 paratypes, all hypopi, attached in small pits on the surface of the elytra of the beetle *Trox costatus* Wied., from Siam, Coll. J.R. Philips. Holotype in U.S. National Museum, Washington DC, U.S.A. Other hosts : *Trox montalbanensi* Sch., Luzon and *Trox* sp., Wau, New Guinea.

Remark :
We attach this new genus *Troxocoptes* to the Acaridae owing to the presence of nonpedunculate claws on the legs and the presence of *v e* setae. It is, however clearly distinct from all the other genera in this family by the lateral displacement of the hysteronotal setae, the presence of very big dorsal preapical spines on tarsi I-IV, the segmented aspect of the palposoma.

Acknowledgements

We thank Dr. R.G. Gordon for permission to examine the collection of Trogidae in the U.S. National Museum.

Summary

Troxocoptes minutus gen. n., sp. n. (Acari, Acaridae) a new hypopus phoretic on a beetle *Trox costatus* (Coleoptera) from Siam, is described.

Bibliography

ZACHVATKIN A.A., 1941. — *Arachnoidea. Thyroglyphoidea. Fauna of USSR.* Inst. Zool. Ac. Sci. Moscow n° 28 (English translation).