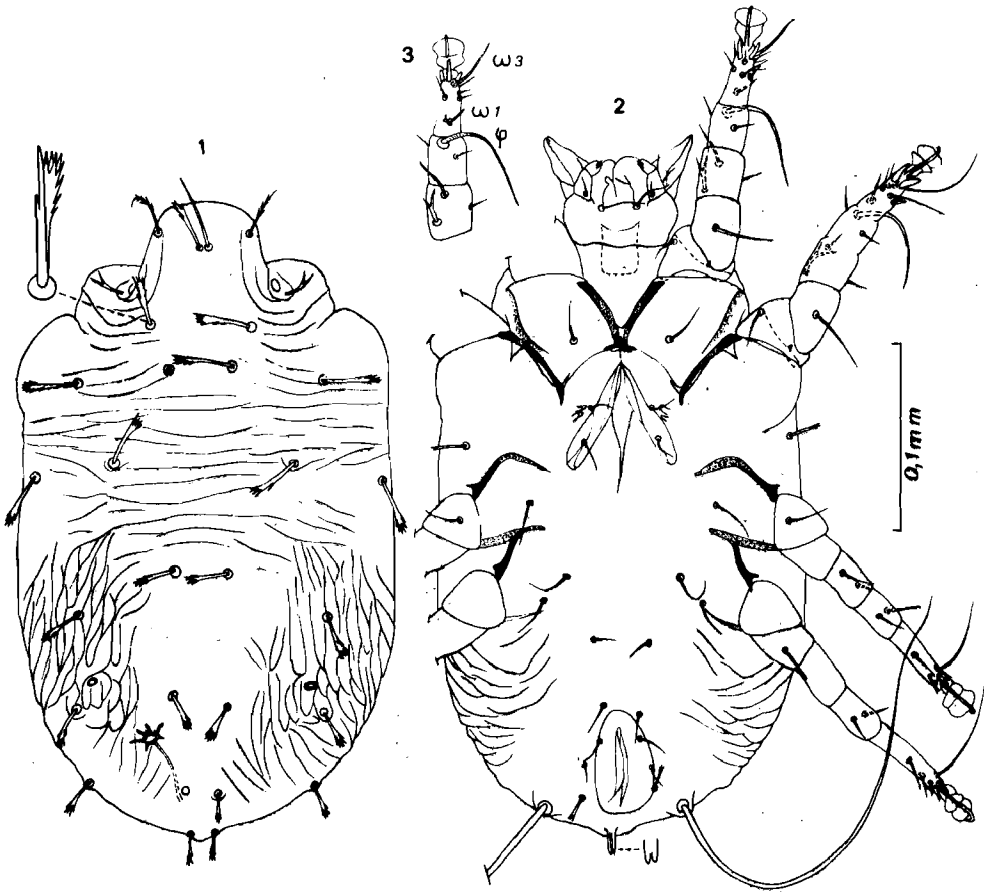


# A NEW GENUS AND TWO NEW SPECIES OF NYCTERIGLYPHINAE FROM BAT GUANO IN BRAZIL (ACARI, ASTIGMATA)<sup>1</sup>

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(With 9 text-figures)



*Nycteriglyphus caetanoi* sp. n., holotype female - Fig. 1: Dorsal view; fig. 2: ventral view; fig. 3: leg I dorsally.

<sup>1</sup> Received for publication September 23, 1977.

Several papers dealing with Astigmatic mites living on bat guano have appeared during these last years. Fain (in press) has given a list of all the cavernicolous Astigmata reported so far. This list comprises 43 species, belonging to 19 genera and 8 families. Most of these species belong to the subfamily Nycteriglyphinae (Rosensteiniidae). These mites live generally on the guano of bats and they are probably guano feeders, however it appears possible that some species may have a parasitic role on bats. This opinion is based on the fact that a number of species have been found on bats and that in some cases the mites were strongly attached to the skin of their host by means of their chelicerae (Fain, 1963, and in press).

The holotypes of the new species are deposited in the Museum of the Dept. of Zoology, ESALQ, University of São Paulo, Piracicaba, São Paulo.

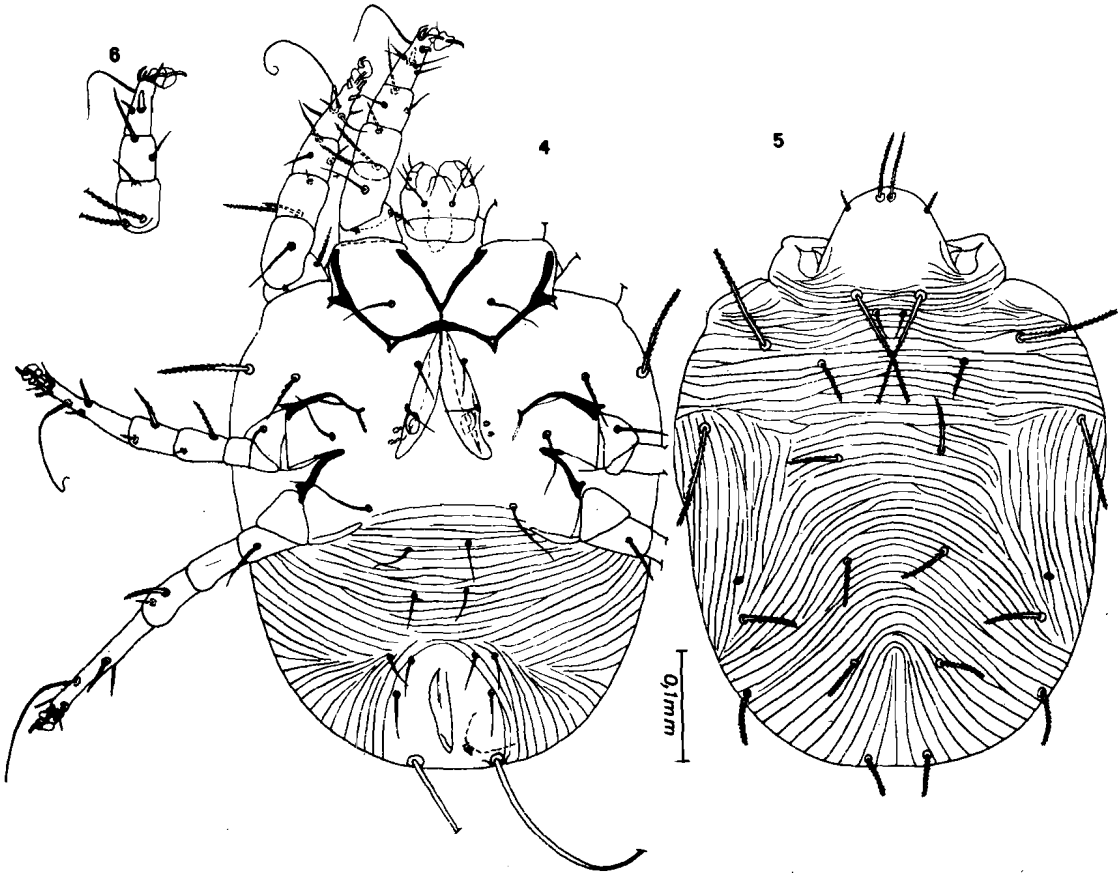
### Genus *Nycteriglyphus* Zachvatkin, 1941

#### *Nycteriglyphus caetanoi* sp. n.

(Figs. 1-3)

This new species is known only from the female and a nymph.

It resembles *Nycteriglyphus sturnirae* Fain, 1963 and *N. laviae* Fain, 1970 by the shape of the dorsal setae expanded apically in a dentate blade. It differs, however, from these two species by the greater length of the cylindrical base of these setae and the more serrate shape of their apices; by the presence of only one solenidion on genu I (for two solenidia in the other species), the complete absence of striations in a large median area situated behind the *d* 2 setae and the short aspect of the copulatory tube.



*Guanophagoides piracicabensis* sp. n., holotype female – Fig. 4: Ventral view; fig. 5: dorsal view; fig. 6: leg I.

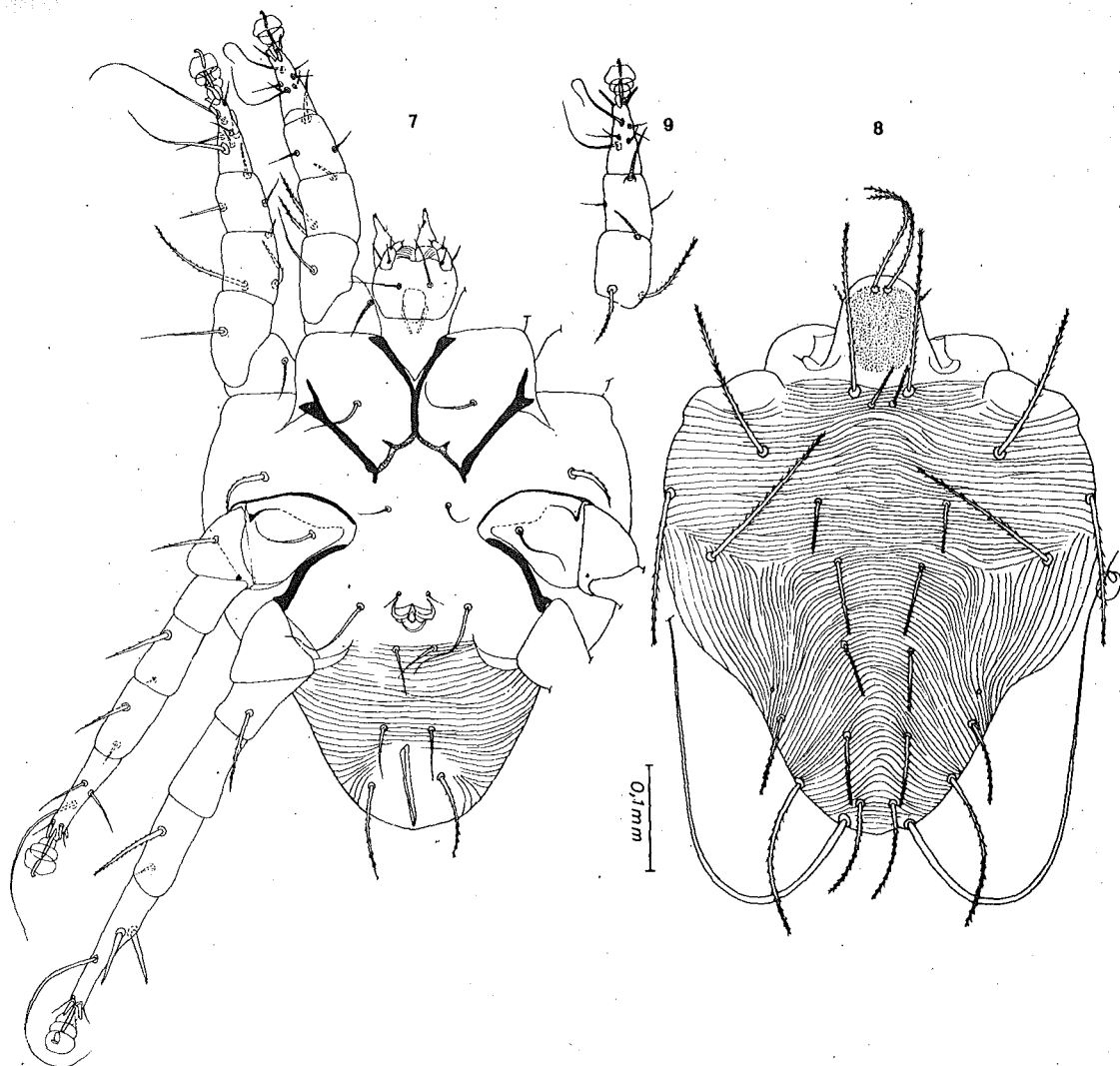
*Female* (fig. 1-3) — Holotype 330  $\mu$  long (idiosoma) and 210  $\mu$  wide. *Dorsum* with irregular striations often interrupted. In the posterolateral parts the striations are oblique and partly squamous. Most of setae have a rather long and narrow cylindrical stalk and a flattened apex divided into 6 to 10 narrow barbs. The *sc i* and *sc e* setae are 33  $\mu$  long. The opisthosoma contains a large sclerotized structure which is the internal part of the bursa copulatrix. The bursa opens ventro-terminally by a narrow tube 9  $\mu$  long. *Venter*: the epimera I are V-shaped and are fused with a small epigynium. Anus ventral. All ventral setae are narrow and bare. Legs well developed. Genu I with only one solenidion 18-21  $\mu$  long.

*Tritonymph* — It is 230  $\mu$  long (idiosoma) and 170  $\mu$  wide. Dorsal striation more developed than in the female and covering the entire dorsum. Dorsal setae as in the female but shorter. Genu I with one solenidion.

*Habitat and locality* — On the guano of bats, at Piracicaba, Brazil, 25.VIII.1976 (holotype female and 1 paratype nymph) (Coll. A. A. Caetano).

#### Genus *Guanophtagoides* g. n.

*Definition* — With the characters of the Nycteriglyphinae Fain. In the female the epimera I are V-shaped and fused with the epigynium; pre-



*Guanophtagoides piracicabensis* sp. n., allotype male — Fig. 7: Ventral view; fig. 8: dorsal view; fig. 9: leg I.

tarsus long ending in a large empodial claw; cuticle striated; dorsal setae barbed; presence of *v e* setae. This new genus is distinguished from all other genera described in this subfamily by the fusion of the epigynium with the apices of the epimera II and the strong development of the *ba* setae on tarsi I and II, which are strong spines.

*Type species:*

*Guanophagoides piracicabensis* sp. n.

(Figs. 4-9)

*Female* (fig. 4-6) – Idiosoma in holotype 495  $\mu$  long and 375  $\mu$  wide. *Dorsum*: cuticle striated except in a small area in front of *sc i* setae which is slightly punctate. Dorsal setae cylindrical, strong (except *v e*) and shortly barbed. The *v i*, *v e*, *sc e*, *sc l*, *l l* and *d l* are 60  $\mu$ , 15  $\mu$ , 96  $\mu$ , 21  $\mu$ , 88  $\mu$  and 38  $\mu$  long respectively. *Venter*: opisthosoma striated; apices of epimera II fused with the epigynium, the latter loosely connected with the apex of epimera I fused into a V. Genital discs (or suckers) not observed. In the posterior half of the antero-lateral vulvar lips there are, at each side, an ovoid pouch connected more laterally with two much smaller ovoid structures by means of small canaliculi. Posterior epimera free. A large membranous spermatheca is visible in the posterior part of opisthosoma. Bursa very narrow and membranous, its external aperture not observed. Legs long. Genu I with one solenidion. The seta *ba* of tarsi I and II is a strong conical spine. Gnathosoma: ventral surface with two poorly distinct striated membranes covering partly the bases of the palps.

*Male* (fig. 7-9) – Idiosoma of allotype 519  $\mu$  long and 390  $\mu$  wide (maximum). Posterior extremity rounded. *Dorsum*: striations as in female; setae as in female but longer. *Venter*: epimera I fused in a sternum 45  $\mu$  long which is connected with the apices of epimera II as in the female. Epimera III and IV fused. Genital sclerite very small; there are 2 pairs of genital sclerotized discs. Legs as in the female but stronger; genu I with one solenidion; tarsus I with a very thin *ba* seta; tarsus II with the *ba* and the antero apical setae in the shape of strong spines. Gnathosoma as in the female.

*Habitat and locality* – On the guano of bats, Piracicaba, Brazil, 25.VIII.1976 (Holotype female, allotype and 2 paratypes male).

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