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NYCTERIGLYPHITES PENNSYLVANICUS
n.g., n. sp. (Acari, Astigmata) FROM THE
GUANO OF **MYOTIS LUCIFUGUS**,
IN USA (1)

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by A. FAIN (2), F.S. LUKOSCHUS (3) and J.O. WHITAKER (4)

The new species of mite described here was abundant in the guano of *Myotis lucifugus*, from a house in Entriken, Huntingdon Co., Pennsylvania, U.S.A. It belongs to a new genus *Nycteriglyphites* (Rosensteiniidae, Nycteriglyphinae).

Genus **Nycteriglyphites** n. gen.

Definition : With the characters of the Nycteriglyphinae. Cuticle striated and scaly. A small median punctate propodonal plate is present. Epimeres I in the female fused in a V or a Y with very short base and united behind to the epigynium. Dorsal setae modified : asymmetrical, flattened, more or less expanded apically and bearing very small teeth. Tarsi I-II with 3 apicoventral spines. There is only one solenidion on genu 1. In the female there are 5 pairs of anal setae, in the male 2 pairs. The copulatory tube in female is ventral, preterminal. Posterior extremity without a pair of very long simple setae (*l* 5), but with only short and barbed setae. Setae *d* 5 lacking.

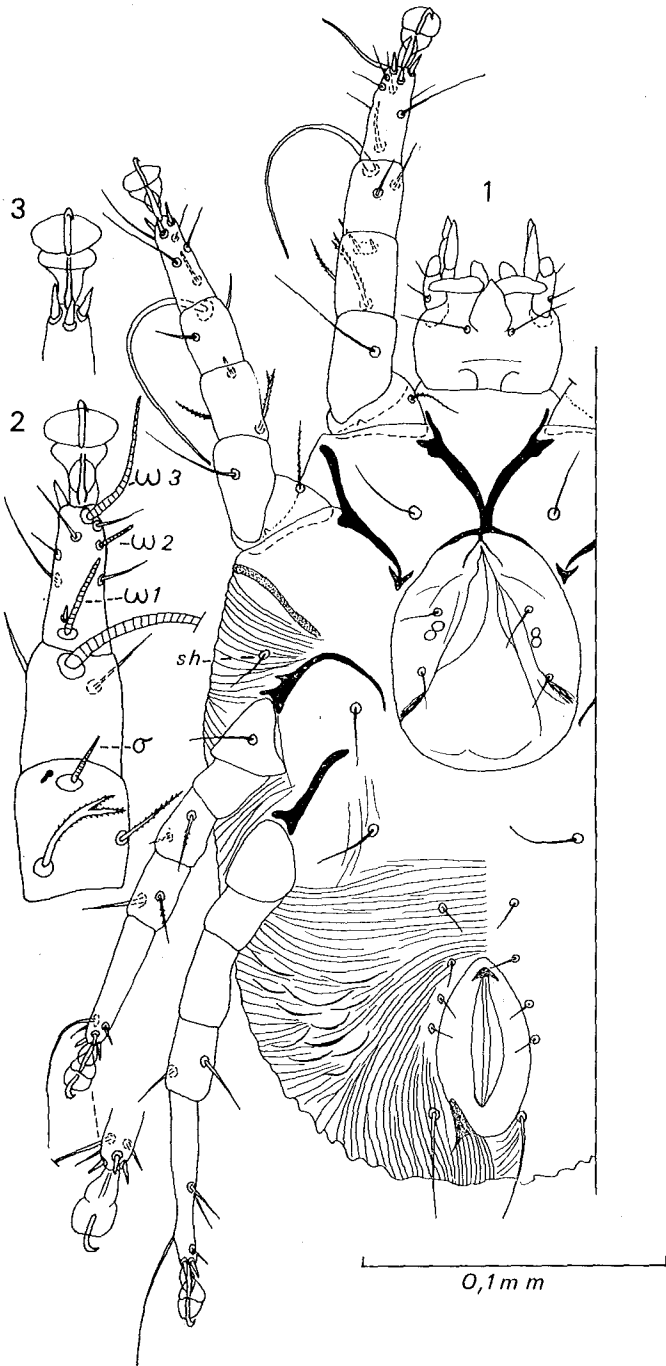
Type species : *Nycteriglyphites pennsylvanicus* n. sp.

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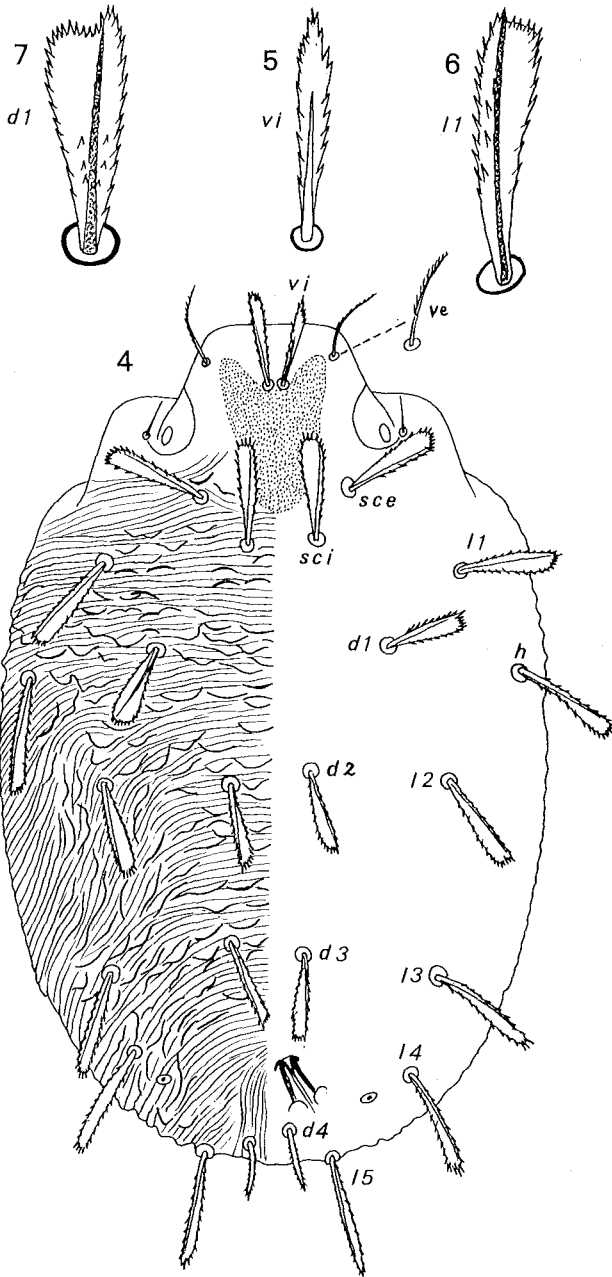


FIG. 1-7. — *Nycteriglyphites pennsylvanicus* n.sp. Female: -1, in ventral view; -2, leg I dorsally; -3, apex of tarsus I ventrally; -4, female in dorsal view; 5-7, setae of dorsum.

Remark : This genus differs from the other genera in the Nycteriglyphinae by the following combination of characters : presence of one solenidion on genu I, absence of setae *d 5*, absence of a pair of long simple setae (*l 5*) at posterior extremity, these setae being replaced by short, flattened and toothed setae. By the absence of long *l 5* setae this genus resembles *Nycteriglyphoides* Fain, 1968 ; however, in this genus there are 2 solenidia on genu I, the tarsi bear many more setae and in the male the genital organ is strongly displaced anteriorly.

***Nycteriglyphites pennsylvanicus* n. sp.**

Female (figs. 1-7) : Idiosoma in the holotype 270 μ long and 175 μ wide (maximum). In 3 paratypes these measurements are 300 \times 183 μ , 290 \times 180 μ and 265 \times 170 μ . *Dorsum* : Cuticle with irregular transverse striations forming numerous scales except in two areas : the propodotum which bears a small, slightly punctate plate and the posteromedian part of the hysteronotum which only bears very thin non-scaly striations. All dorsal setae, except *ve* and *d 4* flattened, asymmetrical and denticulate. Setae *ve* very thin and shortly barbed in their apical two thirds ; setae *d 4* thick, more or less cylindrical and shortly barbed. *Venter* : Epimeres fused in a V (or in a Y with a very short sternum) fused behind to the epigynium, other epimeres free. Opisthogaster with irregular striations mostly transverse, and with scales laterally. There is a narrowly conical ventral and subterminal copulatory papilla 20 μ long.

Chaetotaxy of idiosoma : Dorsal setae measuring 20 to 42 μ long. Setae *vi*, *ve*, *sce*, *sci*, *l 1* to *l 5*, *d 1* to *d 4*, *b*, *sb*, *cx I*, *cx III*, *sc x*, *ga*, *gm*, *gp*, *a 1* to *a 5* present. The *d 5* is lacking. The *l 5* is thick, barbed and relatively short (42 μ). The *a 5* is distinctly longer (21 μ) than the other anals. Gnathosoma moderately developed with a pair of ventral poorly developed membranous lobes. *Legs* relatively long. Tarsus I with 5 very thin and short setae and 3 apico-ventral spines. Tarsus II similar to I but with only 4 thin setae. Tarsi III-IV with 3 simple setae and 3 apical spines. Tibiae with 2-2-1-1 setae. Genua 2-2-1-0 setae. The dorsal setae of genua I-II are barbed and forked apically. *Solenidiotaxy* : Tarsus I with $\omega 1$ narrow ; the $\omega 2$ is narrow, short



FIG. 8. — *Nycteriglyphites pennsylvanicus* n. sp. Male in ventral view.

and close to the apex ; ω 3 is subapical, thicker and long. Tibial solenidia I-II long ; those of tibiae III-IV short. Genu I with only one, short solenidion.

Male (fig. 8) : Allotype 260 μ long and 162 μ wide (maximum). *Dorsum* : Cuticle and setae as in female except that the posteromedian area of opisthonotum bears a few scales. *Venter* : Epimeres I fused in Y with a sternum 15 μ long. Thick epigynium present. Sex organ situated between coxae IV. There are 3 pairs of anal setae, the posterior pair slightly barbed and 21 μ long. Legs as in the female but slightly thicker, especially legs I-II.

Tritonymph : Length of idiosoma 250 μ , width 160 μ . Dorsum as in female but with less cuticular scales and narrower setae. Venter as in female except that the vulva and the copulatory tube are absent and there are only 3 pairs of anal setae. Epimeres very sclerotized. Epimeres I fused in a sternum.

Protonymph : Length 180 μ , width 120 μ . Dorsal cuticle and setae as in tritonymph. Venter as in tritonymph except that there is only one pair of genital suckers and trochanters I-III are devoid of setae. Solenidion ω 3, which is generally lacking in the protonymphs of the Astigmata, is present here.

Habitat : Holotype female from the guano of *Myotis lucifugus*. from Entriken. Huntingdon Co., Pennsylvania. U.S.A. 26 July 1981. Paratypes 39 females, 20 males. 7 nymphs, from the same habitat. Holotype in U.S.N. Museum, Washington. D.C.

Acknowledgements

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Abstract

Nycteriglyphites pennsylvanicus n.g., n.sp. (Acari, Astigmata) is described from the guano of *Myotis lucifugus*, in U.S.A.

Bibliography

- FAIN A., 1963. — Les Tyroglyphides commensaux des Chauves-souris insectivores. Description de cinq espèces nouvelles. *Rev. Zool. Bot. Afr.*, LXVII (1-2) : 33-58.
- O'CONNOR B.M., WHITAKER J.O. Jr. & EASTERLA D.A., 1976. — A new species of *Nycteriglyphus* (Acari : Rosensteiniidae) from guano of *Leptonycteris nivalis* (Chiroptera : Phyllostomatidae). *Ann. Entom. Soc. Amer.*, 70 (2) : 237-241.
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