

***Caloglyphus manuri* sp. n. (Acaridida: Acaridae) Extracted from Chicken Manure, Mansoura, Egypt**

**S. A. Eraky\* and M. A. Osman\*\***

\*Plant Protection Dept., Faculty of Agric., Assiut Univ., Assiut 71516 Egypt. e-Mail: seraky53@yahoo.com

\*\*Agric. Zoology Dept., Faculty of Agric., Mansoura Univ., Mansoura Egypt. e-Mail: mesoma20@mans.edu.eg

**ABSTRACT**

*Caloglyphus manuri* sp. n. (Acari: Acaridae) extracted from chicken manure, in a chicken farm at the Faculty of Agriculture, Mansoura University, Egypt. This new species is described and illustrated.

**Key Words:** Acaridae, *Caloglyphus manuri* sp. n., Chicken manure.

**INTRODUCTION**

Many species belonging to the Acaridides have already been described and recorded (El-Banhawy & Abou-Awad 1990; Eraky 1993, 1994, 1998, 1999 & 2000; Norton 1998 and Sarwar & Ashfaq 2004). The number of species found in Egypt is far below the taxa must be occurred. Accumulated knowledge concerning the Acaridides fauna in Egypt is extremely scarce as compared with the other groups of mites. However, several taxa were found to be new and several morphological characteristics were described. Hence, the study herein presents description and illustrations of the new species, *Caloglyphus manuri* sp.n. from hypopial nymphs (heteromorphic deutonymphs).

**MATERIALS AND METHODS**

Soil samples were taken fortnightly from different habitats in and outside the chicken houses. The materials were extracted by a modified Tullgren funnel. The extracted materials yielded different groups of mites, of which one species proved to be new. The hypopi of the new mite species were mounted in Hoyer's medium for identification.

**Description of the new species**  
***Caloglyphus manuri* sp. n.**

**Measurements:** Length: 162 – 188  $\mu$ m, width: 98 – 117  $\mu$ m.

**Dorsum (Fig. 1a):** Propodosoma approximately triangular in its outline; rostrum projecting anteriorly. Propodosomal setae short, originating approximately along a common line, outer pair of the same length of the inner one. Dorsosejugal region present, ornamented by transversal striae. Hysterosomatic setae very short, thus hardly visible. Propodosomatic and hysterosomatic surfaces

smooth, without any sculptures, except the lateral sides ornamented with short lines along the body.

**Ventrum (Fig. 1b):** Infracapitulum of gnathosoma (Fig. 2a) normally developed, longer than wide. Infracapitular setae long; palpi well discrete, solinidia also long. All apodemes of anterior sternal plate short, not reaching arch of sejugal apodemes. Apodemes III and IV also short; posterior sternal apodeme hardly reaching prinoridium of gentail opening, thus epimeres on anterior and posterior sternal plate open. Epimeres I, III and IV with comparatively large suction discs. Adhering plate (Fig. 2b) approximately large, but standing far from the posterior body margin. All discs D and DS well – developed.

Legs (Fig. 3): Tarsi of all legs with normal claws each; Legs I and II with long peduncles spoon-shaped adhering setae. Legs III and IV with setiform ones. Solenidia Omega 1 ( $\omega_1$ ) on legs I and II long and thick, longer than solenidia Phi ( $\phi$ ) on

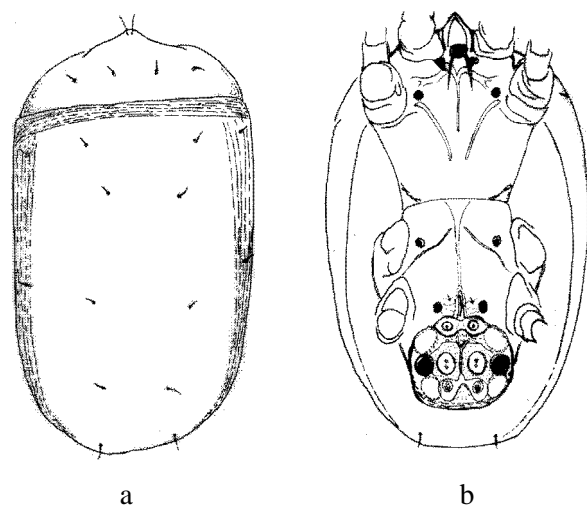


Fig. (1): *Caloglyphus manuri* sp.n. (Hypopus).  
A: Dorsum, B: Ventrum

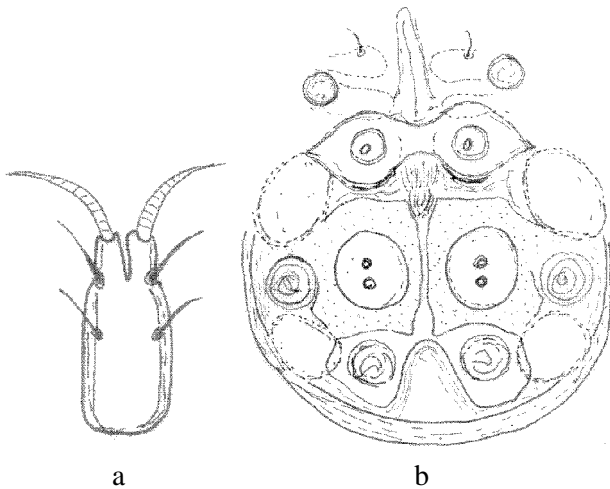


Fig. (2): *Caloglyphus manuri* sp.n. (Hypopus).  
A: Gnathosoma B: Suctorial plate

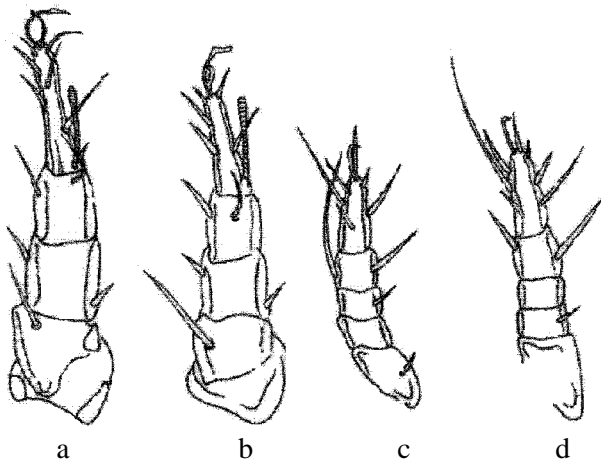


Fig. (3): *Caloglyphus manuri* sp.n. (Hypopus).  
A: Leg I, B: Leg II, C: Leg III, D: Leg IV

both legs, solenidia  $\omega_2$  ( $\omega_2$ ) and solenidia  $\epsilon$  on leg I short and thin.

**Material examined:** Holotype and 10 paratypes were extracted from chicken manure on the chicken farm of the Faculty of Agriculture, Mansoura University collected by M. A. Osman on 20.5.2007. Holotype and 5 Paratypes were deposited in the acaridid mite collection of Plant Protection Dept., Faculty of Agric. Assiut Univ., Egypt; 2 Paratypes were deposited in Agric. Zoology Dept., Faculty of Agric. Mansoura Univ., Egypt and 3 paratypes were

also deposited in the Arachnoidea collection of the Hungarian Natural History Museum, Budapest, Hungary.

**Remarks:** According to its unique shape of the course of apodomes and the structure and chaetotaxy of legs, the new species may readily be separated from all other related congeners of the genus *Caloglyphus* Berlese, (e.g., *C. csibbii* Eraky, 1999; *C. arafati* and *C. ornatus* Eraky 2000).

## REFERENCES

- El-Banhawy, E. M. and Abou-Awad, B.A. 1990. Description of hypopial stage of a new species of mite associated with the honey bee *Apis dorsata* F. (Acari: Acaridae). Zoologische Jahrbucher, Abteilung fur Systematik, Okologie und Geographie der Tiere. 117 (2): 269-271.
- Eraky, S. A., 1993. *Myianoetus lili* sp.n. (Acari: Anoetidae) educed from manure, Assiut Upper Egypt. Folia ent. Hung., 55: 47 – 49.
- Eraky, S. A., 1994. Three new anoetid mites extracted from animal excrement and from garlic (Acarina: Anoetidae). Folia ent. Hung., 55: 217– 223.
- Eraky, S. A., 1998. *Mahunkaglyphus solimani* g.n. & sp.n. and three new species (Acari: Astigmata) described from termite nests, western desert, Egypt. Folia ent. Hung., 59: 241 – 250.
- Eraky, S. A. 1999. Five new hypopial nymphs (Acari: Acaridae and Histiotomatidae) described from different habitats. Folia ent. Hung., 60: 45– 56.
- Eraky, S. A., 2000. Identification key for some Acarididia mites (Hypopi) (Acari: Astigmata) with descriptions of two new species. Assiut J. of Agric. Sci., 31 (2) : 341 – 371.
- Norton, R.A., 1998. Morphological evidence for the evolutionary origin of Astigmata (Acari: Acariformes). Exp. Appl. Acarology, Vol. 22 (10): 559-594.
- Sarwar, M. and Ashfaq, M. 2004. Two new caloglyphus berlese mites (Astigmata: Acaridae) recorded in Pakistan. Pakistan Journal of Scientific and Industrial Research, 47 (6): 455-461.