DENDROLAELAPS METWALLII SP. NOV. FROM EGYPT (ACARINA: MESOSTIGMATA: DIGAMASELLIDAE)

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INTRODUCTION

Members of the genus *Dendrolaelaps* Halbert are free – living and inhabit soil litter and associated with bark beetles or their galleries; they are predatory and feeding on small collembolans, acarid mites, coleopteran insects and soil nematodes (McGraw & Farrier 1969; Lindquist 1975; Ishikawa 1977 and Huhta 1982). Several taxonomical studies have been conducted on genus *Dendrolaelaps* (Halbert, 1915; Hirschmann, 1960; McGraw & Farrier, 1969; Lindquist, 1975; Pramanik & Raychaudhuri, 1976; Shcherbak, 1978; Wisniewaki, 1979; Huhta, 1982; Hassan, *et al.* 1986; Metwally & Mersal, 1986 and Afifi, *et al.* 1991).

This paper deals with a description of *D. metwallii* a new species found on soil of mango, at the farm of Faculty of Agriculture, Al-Azhar University, Nasr City Cairo, Egypt and keys of known Egyptian species.

MATERIAL AND METHODS

Dendrolaelaps metwallii was collected from samples of leaves of Mango tree, at the farm of Faculty of Agriculture, Al–Azhar University, Nasr City Cairo, Egypt. These samples were transferred to the laboratory for mite direct examination by stereomicroscope. Some adult specimens were mounted in Hoyer's medium on glass slides for identification. The system of setal nomenclature for legs and idisome used by Evans (1963) and Lindqusit and Evans (1965) was adopted.

RESULTS AND DISCUSSION

Key to Egyptian Species of the Genus *Dendrolaelaps* Halbert (Female)

1- Opisthonotum with 19 pairs of seta (J, Z, S series and R_2 - R_5 setae), with multidantate movable digit chelicerae.....***Dendrolaelaps rasmii*** Nasr & Mersal

- Opisthonotum with 15 pairs of setae (J, Z, S series only), movable digit of chelicera with 4 teeth.....2

2- Podonotum with 18 pairs of setae (j, z, s series); setae r_2, r_4 and r_5 of shield .....***D. aegypticus*** Metwally & Mersal

- Podonotum with more than 18 pairs of setae.....3

3- Podonotum with 20 pairs of setae (setae r_2 off shield); setae J_3, J_4 and Z_4 simple .....***D. metwallii*** **sp. n.**

- Podonotum with 21 pairs of setae (setae r_2 on shield); setae J_3, J_4 and Z_4 serrated ..... ***D. zaheri*** Metally and Mersal.

Dendrolaelaps metwallii n.sp.

(Figs. 1-5)

Diagnosis: This species is similar to *D. zaheri* Metwally and Mersal; but it can be readily distinguished by having podonotum bears 20 of setae; setae J_3, $J_4$and Z_4 simple; paranal setae longer than postanals.

Female: (Fig. 1) Idiosoma 510μ long, 270μ at greatest wide, body dorsum with 42 pairs of simple setae which are: 20 pairs on anterior dorsal shield (j_1 - j_6, z_1-z_6, s_1-s_6, r_4 and r_5), seta r_2, r_3 and r_6 on lateral membrane of unterior region; 15pairs on opithonotum (J_1 - J_5, Z_1 - Z_5 and S_1 - S_5); 5 pairs on lateral membrane of posterior region(R_2 - R_5). Two pairs of small elongated light refractile structure (organs xc of Athias-Henriot) on dorsal hexagonal area. Posterior dorsal shield with anterior margin emerginate (u-shape). Length of some dorsal setae: j1= 18μ, r_3= 29 μ, j_6= 19 μ, J_5= 15 μ, Z_5= 50 μ, S_5= 75 μ, and R_5= 19 μ.

Tritosternum (Fig. 2) well developed, with a pair of long pilose licinae. Presternal area with a few oblique striation and bearing the first sternal setae- sternal shield well devined, with strate anterior magin, slightly concave posterior one; having three pairs of simple setae (st.2, st.3 and mt. setae). Metasternal shield absent. Genital shield truncate, with a pair of genital setae. Ventrianal shield bears 4 pairs setae (Jv_1-$_3$ and Zv_2) plus anal setae; para-anal setae longer than postanals (about 1.5 times).

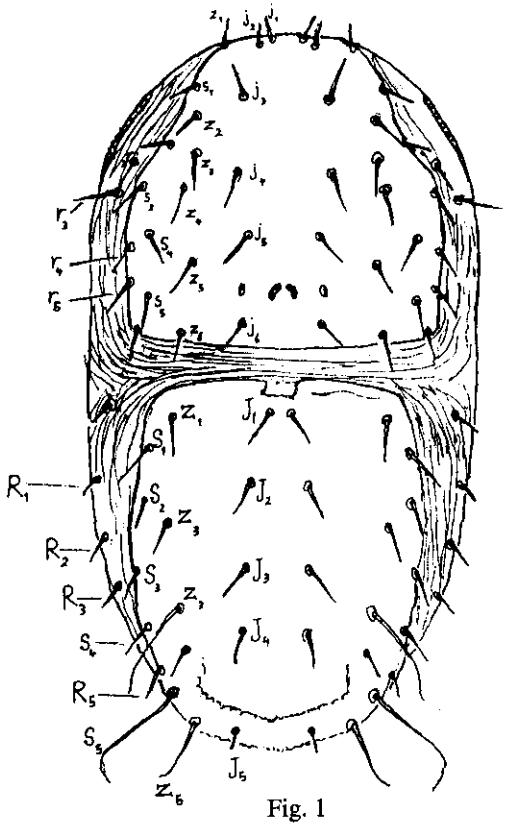

Fig. 1

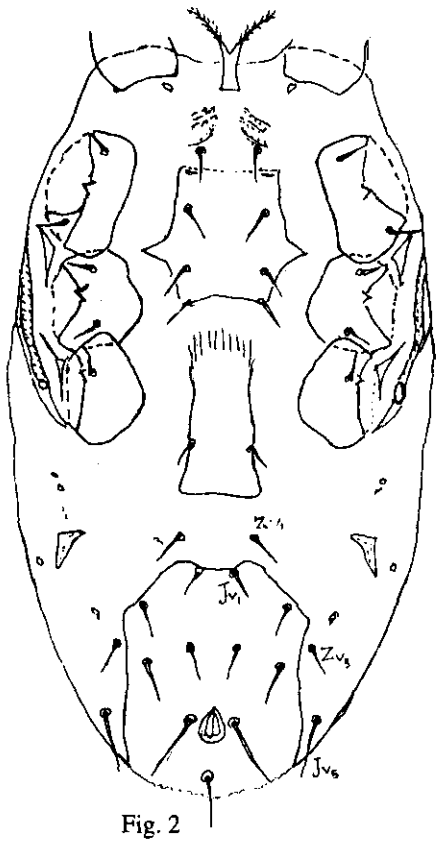

Fig. 2

Fig. 3

Fig. 4

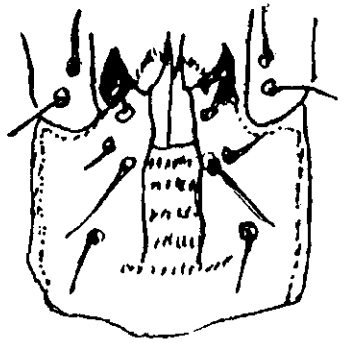

Fig. 5

Figs. (1:5): Female of *Dendrolaelaps metwallii* n. sp. 1: Idiosoma; 2: Tritosternum; 3: Tectum; 4: Chelecera; 5: Corniculi

Setae Zv_1, Zv_3, and Zv_5 on integument surrawed ventrianal shield. Pertreme normal in shope, extending anteriorly to level of setae s1, two pairs of triangular elongate exopodal plates between coxae II-III and coxa III-IV; metapodal plates presented by a pairs of small triangular plates.

Tectum (Fig. 3) triramus, ends of projections finely serrate.

Fixed digite of chelecera (Fig. 4) with 6 teeth, setiform pilus dentiles between fourth and fifth teeth, movable digit with 4 teeth.

Cornculi (Fig. 5) stout, pointed well separated; and fringed internal malae slightly longer than corniculi. Deutosternum having five transverse rows of denticles, with the fifth row distinctely wider than others; internal posterior rostral setae longer than other hyposternal setae.

Setal complement for femora I – II – III – IV respectively 13- 11- 6- 6; genua 12-11-7-7; tibia 12- 10- 8- 7.

Male: Not represented.

Holotype: A female collected from soil of mango, at the farm of Faculty of Agriculture, Al–Azhar University, Nasr City Cairo, Egypt and kept in the collection of Acarology Research Unit at the National Res. Center, Dokki, Cairo.

SAMMARY

Dendrolaelaps metwallii sp. n., was collected from soil of mango, at the farm of Faculty of Agriculture, Al–Azhar University, Nasr City Cairo, Egypt. The species was described, illustrated, and a key of the Egyptian species of the genus was presented.

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