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Description of two new tydeid mites from Egypt (Acari, Tydeidae)[1)]

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(With 2 figures)

Abstract

Two new tydeid mites, *Orthotydeus longisetosus* and *Tydeus fabae*, are described and illustrated. They were found in soil with roots of wheat and broad bean plants from Egypt.

Introduction

Members of the family Tydeidae are found in many widely spread habitats, feeding habits differ according to the species, some are predators, others are plant feeders or fungivorus. Rasmy et al. (1978) reared three tydeid species on *Alternaria* sp. fungi. During the survey of mites inhabiting soil with roots of different crops from Egypt, *Orthotydeus longisetosus* sp. n. and *Tydeus fabae* sp. n. were found. According to Baker (1965, 1968, 1970) the two new species belong to the genera *Tydeus* and *Paralorryia* respectively, whereas according to André (1980) the two new species belong to the genera *Orthotydeus* and *Tydeus* respectively.

Genus: *Orthotydeus* André, 1980

Orthotydeus longisetosus sp. n.

(Figs 1A - F)

Female (fig. 1A): Gnathosoma visible from above; length of movable chelae 12 µm. Palpus setal pattern is (2-2-6) + ω (fig. 1F), all setae simple except the thicker terminal setae. Prodorsum recurved, length of body excluding gnathosoma 329 µm, width 212 µm, propodosoma with longitudinal striation, setal measurements and arrangment are, P1 35 µm, P2 33 µm, P3 37 µm and S 48 µm, all moderatly serrate except the long-

1) This work was done as parts of the project of biological control of roots diseases by Mycorrhizae.

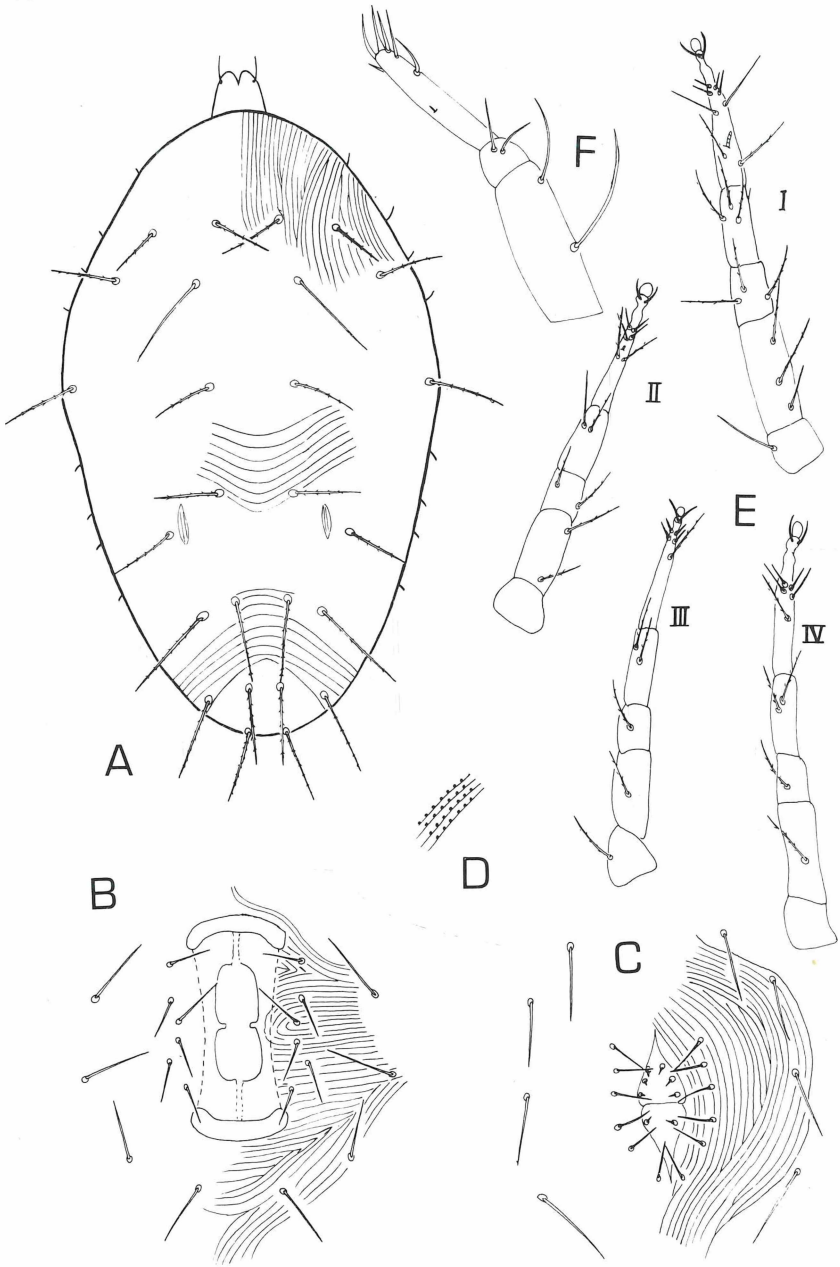

Fig. 1: *Orthotydeus longisetosus* sp. n., female. - Body dorsum (A), genital region of female (B), genital region of male (C), cuticular striae with naps (D), chaetotaxy of legs I-IV (E), palp (F).

smooth filiform sensory setae. Hysterosoma almost with transverse striation, and have rounded lobes (fig. 1D). Hysterosomal setae measurments are, D1 35 µm, D2 35 µm, D3 37 µm, D4 40 µm, D5 42 µm, L1 40 µm, L4 42 µm L5 44 µm; h2 42 µm. All setae long, simple and moderately serrate. Setae D4, L4 reaching the base of next row setae, while setae, D5, L5 surpassing the base of h2 setae. Solenidion I slender, shorter than width of segment, solenidion II short. Empodia without claws. Legs setal pattern as follows, I, 8(1)-4-3-3-1-3. II, 6(1)-2-2-2-0-1. III, 5-2-1-1-1-4. IV, 5-2-1-1-0-2 (fig. 1E). Ventrum with three pairs of ventral setae, four pairs of paragenital setae, six pairs of genital setae (fig. 1B) and one pair of anal setae.

Male: Length of body excluding gnathosoma 279 µm, width 171 µm. Other features similar to female except for genital region (fig. 1C), with four pairs of paragenital, six pairs of genital, four pairs of eugenital, and one pair of anal setae.

Holotype: Female collected from soil with roots of wheat plants, *Triticum* spp., March 4, 1987, Gharbia region, Egypt. Paratype: Five females and 2 males with the same data. Female holotype, 2 females, 1 male paratypes, deposited in Zoologisches Institut und Zoologisches Museum Hamburg, Bundesrepublik Deutschland. Further paratypes in National Research Centre, Plant Protection Department, Dokki, Cairo, Egypt.

R e m a r k s: Hitherto seven species belonging to the genus *Orthotydeus* are known (André 1980, Castagnoli 1984). The long, serrate dorsal setae separate the new species from all of them.

Genus: *Tydeus* Koch 1836, sensu André 1980

Tydeus fabae sp. n.

(Figs 2A - E)

Female: Gnathosoma partially hidden from above with the exception of the palpi; movable chelae of medium length, 8.8 µm. Palpus setal pattern is (2-2-6)+ω (fig. 2E), all setae are simple, but the terminal seta is blade like, palp tarsus elongate. Body length without gnathosoma, 264 µm and width 167 µm. Prodorsum recurved. Dorsum of body (fig. 2A) striated with the exception of an irregular longitudinal reticulated area on propodosoma, including P1 and sensory setae only: P1 13µm, P2 & P3 18 µm, all slightly serrate, sensory setae 33 µm, slender, whiplike. Hysterosoma with longitudinal cuticular striae between setae D2, and transverse striae behind and in front of D2. Naps of striae (fig. 2C) obvious and oblong. There are one pair of rosettes between D1 and D2, two pairs of muscle attachements above and behind the rosettes. Hysterosomal setae slender, slightly serrate, D1 17 µm, D2 18 µm, D3 18 µm, D4 20 µm, D5 20 µm, L1 22 µm, L4 22 µm, L5 24 µm and h2 18 µm. Solenidion I slender, shorter than width of segment, posterior pair of setae of tarsus I dissimilar in length. Empodia without claws. Legs

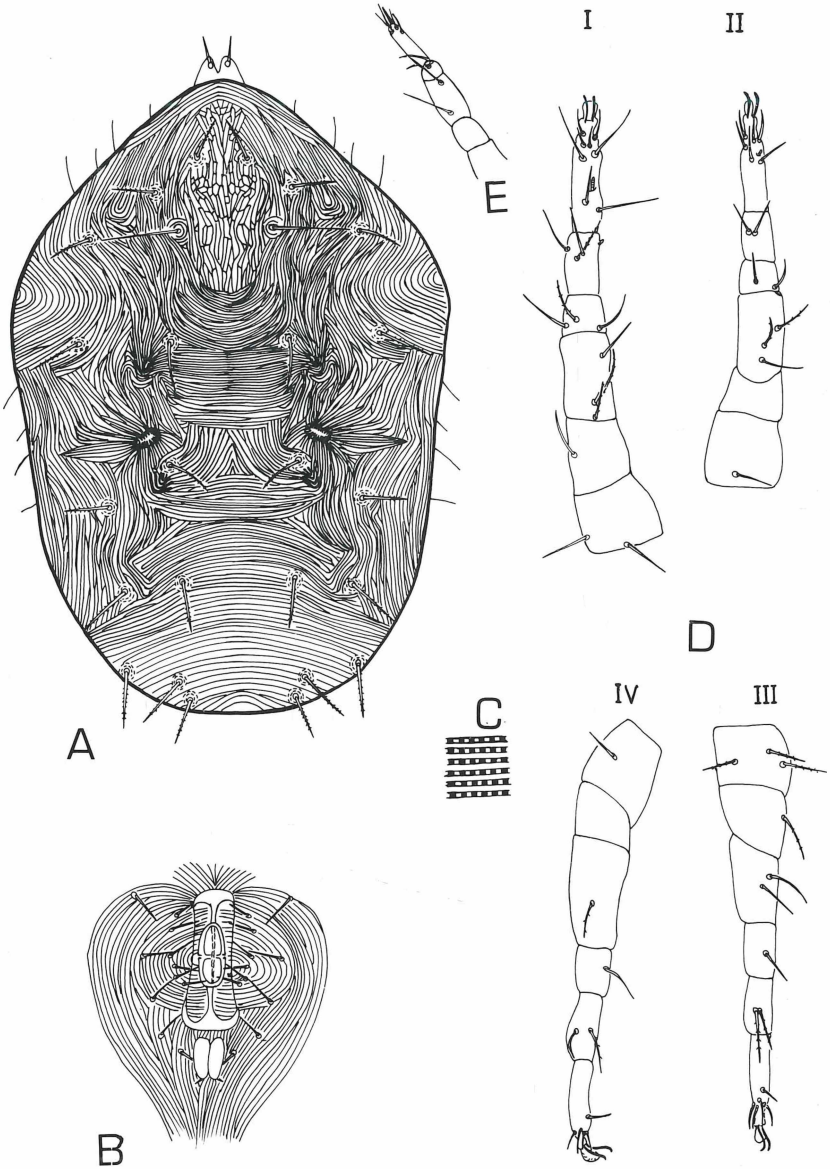

Fig. 2: *Tydeus fabae* sp. n., female. - Body dorsum (A), genital and anal region (B), cuticular striae with naps (C), chaetotaxy of legs I-IV (D), palp (E).

setal pattern as follows, I, 8(1)-4-3-3-1-2. II, 6(1)-2-2-3-0-1. III,5-2-1-2-1-3. IV, 5-2-1-1-0-1 (fig. 2D).

Ventrum with three pairs of ventral setae, four pairs of paragenital setae, six pairs of genital setae (fig. 2B), and one pair of anal setae.

Male: Unknown.

Holotype: Female collected from soil with roots of broad bean, *Vicia fabae;* January 22, 1987, Ismaelia region, Egypt. Paratypes: Four females with the same data. Holotype and paratypes deposited in the Zoologisches Institut und Zoologisches Museum Hamburg, Bundesrepublik Deutschland.

R e m a r k s: This species resembles *Paralorryia andreae* Ueckermann & Mayer (1979) but differs 1. in having the reticulated pattern on propodosoma and its irregular longitudinal shape specially behind sensory setae, 2. all dorsal body setae slender and slightly serrate, 3. in having one pair of rosettes on hysterosoma.

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