

A new species of the genus *Steneotarsonemus* Beer (Actinedida: Tarsonemidae) from Egypt

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ABSTRACT

Steneotarsonemus zaheri sp. nov. (Acari :Tarsonemidae) was described from females and males collected from leaves of sesame, *Sesamum indicum* L. and sugar beet, *Beta vulgaris* L. plants in El-Khatara region, Sharkeia Governorate, Egypt.

Key Words: *Steneotarsonemus zaheri* sp. nov., sesame, sugar beet, description, Egypt.

INTRODUCTION

Species of the genus *Steneotarsonemus* Beer are phytophagous mites, specialized on monocotyledon plants (Lindquist, 1986; Ochoa *et al.*, 1991b; Smiley *et al.*, 1993; Almaguel *et al.*, 2000). Only two species of this genus, *Steneotarsonemus furcatus* De Leon and *Steneotarsonemus concavuscutum* Lofego & Gondium have been reported from coconut, *Cocos nucifera* L. damaging its fruits. The first species occurred in Central America and Brazil (Ochoa *et al.*, 1991a, Navia *et al.*, 2005), while the second was recorded in Brazil (Lofego & Gondium, 2006). Lin and Zhang (2005) described *Steneotarsonemus* (*Neosteneotarsonemus*) *ramus* from *Poa litorosa* on Tagua Bay, Auckland Island; *S.* (*Mahunkacarus*) *mayae* was found under leaf sheaths and on flower panicles of *Dracophllum strictum* Hook in Awakina; *S.* (*Steneotarsonemus*) *spirifex* (Marchal) from ryegrass and pasture soil in Palmerston North and The Glen, New Zealand. Lin *et al.* 2009, described *Steneotarsonemus* (*Steneotarsonemus*) *saccharum* collected from *Saccharum officinarum* L. in Guangdong, China.

In Egypt, Zaher (1986) reported *Steneotarsonemus sayedi* Zaher & Kandeel from soil under bamboo at Demiatta, Egypt.

The used terminology followed Lindquist (1986) and the mean measurement for allotype and paratypes is given in millimicron.

Steneotarsonemus zaheri sp. nov.
(Figs., 1 & 2)

Diagnosis:

This species differs from others in the genus by having three pairs of pores located on the opithosomal segment D and the more subcircular idiosoma.

Adult female (Fig. 1):

Body 225 μ long and 159 μ at widest part.

Gnathosoma: Subcircular, dorsal apodeme distinct. Setae *ch* and *vm* smooth. Palpus short and robust, with two short subequal smooth setae.

Idiosoma:

Dorsum: Dorsal shielding with wide punctuation posterior to propodosoma and segments C and D posterior ends. Posterior shield with anterior margin truncate, covering only base of the gathosoma. Stigmata located somewhat far from the base of seta *v*₁. Seta *d* is the longest dorsally and slightly longer than seta *h*. All setae simple and smooth except bothridial sensilla *sc*₁ is rounded. Three pairs of pores located on segment C while segment F has a single pair.

Venter: Apodeme I wide and Y-shaped with posternal apodeme and not reaching trochanter I; apodeme II hardly reaching prosternal apodeme. Sejugal apodeme reduced, leaving a weak isolated remnant on other side. Apodeme III extending diagonally from proximity of base of seta *3a*, diffuse and curved on it, reaching posterior to trochanter III. Apodeme IV wide and extending posterolateral of seta *3b*, reaching the base of trochanter IV.

Poststernal apodeme is absent. Coxisternal setae *1a* inserted behind apodeme *me*; *2a* behind apodeme II; *3a* near anterior end of Apodeme III; *3b* middle of apodeme IV.

Legs: Number of setae (solenidia in parentheses) on trochanter, femur, genu, tibia and tarsus, respectively: leg I: 0-4-4-6(1)-7(1); leg II: 0-3-3-4-4(1); leg III: 0-4-4-4; leg IV: 0-2-2. All setae smooth. Tibiotarsus I with an obvious claw; legs II and III each with a drum-shaped empodium.

Adult male (Fig., 2):

Body 183 μ long and 97 μ at widest part.

Gnathosoma: Subcircular, dorsal apodeme conspicuous. Setae *ch* and *vm* smooth. Palpus are similar to female.

Idiosoma:

Dorsum: Propodosomal shield trapezoidal. Dorsal setae simple and smooth; seta *v*₁ the longest dorsal. Seta *v*₁ > *sc*₂ > *c*₁ = *c*₂ = *d* > *v*₂ = *f* = *sc*₁.

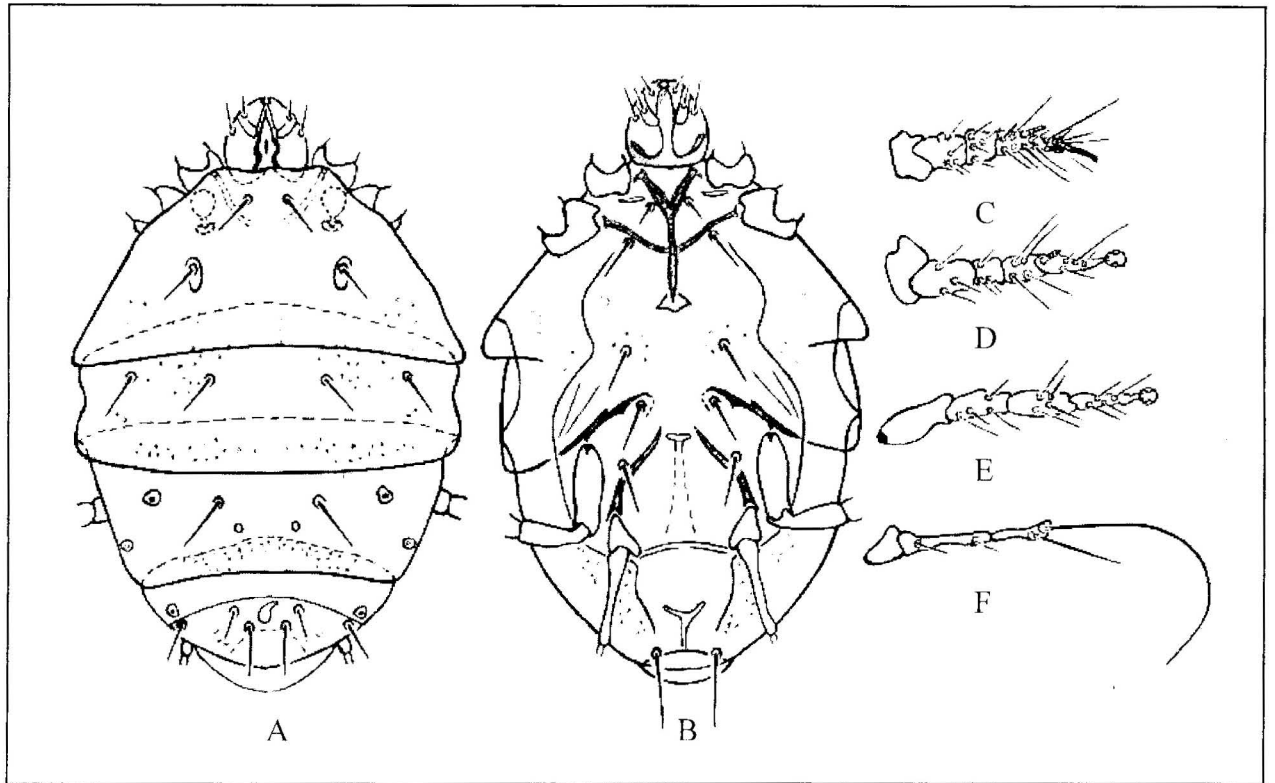


Fig. (1): *Steneotarsonemus zaheri* sp. nov., Adult female.. A. dorsum, B. venter, (C-F) legs I – IV, respectively.

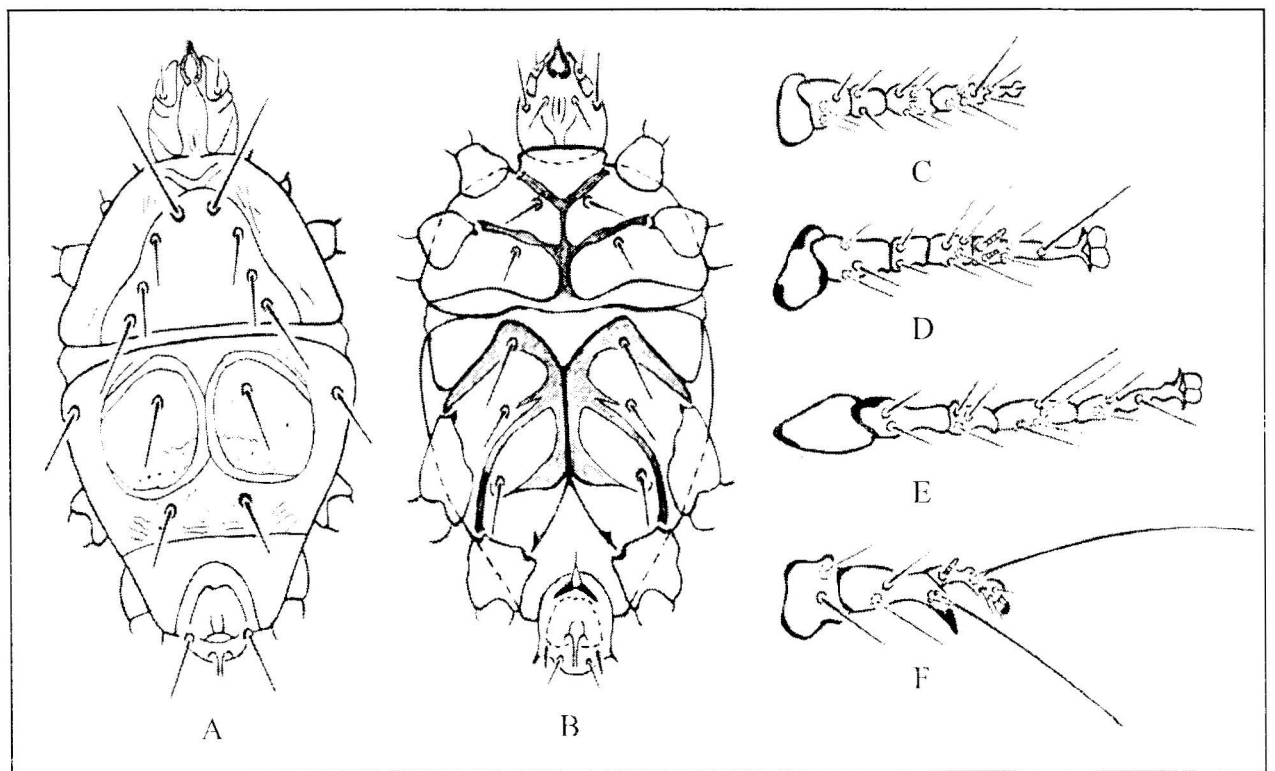


Fig. (2): *Steneotarsonemus zaheri* sp. nov., Adult male. A. dorsum, B. venter, (C-F). Legs I - IV, respectively.

Venter: Coxisternal seta *1a* behind middle of apodeme I; seta *2a* behind 2/3 of apodeme II; seta *3a* near middle of apodeme III and seta *3b* near anterior third of apodeme IV. Apodeme I fused with anterior end of prosternal apodeme; apodeme II fused with prosternal apodeme. Poststernal apodeme thin and fused with sejugal apodeme. Sejugal apodeme broad and fused with poststernal apodeme. Poststernal apodeme widening posteriorly. Lines of fusion between coxae III and IV with venter of idiosoma conspicuous; apodeme III wide and curved; apodeme IV thin.

Legs: Leg IV robust. Number of setae (solenidia in parentheses) on trochanter, femur, genu, tibia and tarsus, respectively: leg I: 0-3-2-4-6; leg II: 0-3-2-4-3(2); leg III : 0-2-3-4-3; leg IV: 2-3-4(1) .

Type specimens:

Holotype: Adult female, infesting sesame, El- Khatara region, Sharkeia Governorate, Egypt, deposited in the collection of Inst. of Efficient Productivity, Zagazig University.

Allotype: Adult male, with the same data of holotype, deposited in the collection of Inst. of Efficient Productivity, Zagazig University.

Paratypes: Several adult females and males from the same region on sesame and sugar beet plants.

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