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TWO NEW ERIOPHYID SPECIES INFESTING SYCAMORE TREES IN EGYPT (ACARI: ERIOPHYOIDEA: ERIOPHYIDAE)

BY Badawi A. ABOU-AWAD*

NEW SPECIES PARASITIC ON TREES

ABSTRACT: Neotegonotus sycamori sp. n. and Tegolophus niloticus sp. n. were collected from sycamore trees Ficus sycamorus. Both species are vagrant on the leaves preferring the upper surfaces. Combined infestation of both species may cause rusting and curling of the leaves.

NOUVELLES ESPECES PARASITES D'ARBRES

RÉSUMÉ: Nous avons récolté sur des Ficus sycamorus, Neotegonotus sycamori sp. n. et Tegolophus niloticus sp. n. Les deux espèces se déplacent sur les feuilles et présentent une préférence pour les faces supérieures. L’infestation combinée des deux espèces provoque le rougissement et l’enroulement des feuilles.

INTRODUCTION

Surveying eriophyid mites infesting sycamore trees in Egypt, ABOU-AWAD (1976) recorded Diptilomiopus ficus Attiah on leaves. Also SOLIMAN and ABOU-AWAD (1977) found Eriophyes sycamori S. & A. inducing blisters on both surfaces of Sycamore leaves.

In this paper the two new species Neotegonotus sycamori and Tegolophus niloticus are added to our knowledge of the Egyptian fauna of eriophyid mites infesting sycamore trees, and a thorough description of each is given.

PHYLLOCOPTINAE

Neotegonotus sycamori sp. n.

(Fig. 1)

This new species resembles Neotegonotus fastigatus (Nal.) (NEWKIRK and KEIFER, 1971) (= Tegonotus fastigatus Nal., KEIFER, 1961), but can be distinguished from it by distinctive design of the dorsal shield, nature of genital coverflap, and the measurements of various structures.

♀ FEMALE. — 130-182.5 μm long, 40-55 μm wide; fusiform; color whitish-yellow. Rostrum about 21 μm long, projecting down; chelicerae 15 μm long. Dorsal shield 45 μm long, 52 μm wide, with prominent anterior lobe. Shield

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Fig. 1: Neotegonotus sycamori sp. n.
F) Featherclaw; SA) Side view of anterior section of mite; DA) Dorsal view of anterior section of shield; GM) Male genitalia; ES) Side skin structure; S) Side view of adult mite; GFI) Female genitalia and coxae.
design tending to be obscure and marked by internal line from each tubercle extending around shield margin to form a semicircular disc; complete admedian lines, meeting and forming nearly jug shape, antero-lateral parts with faint short lines and punctations. Dorsal tubercles 19 μm apart, moderate in size, located near rear shield margin and projecting dorsal setae up and to rear, subparallel, the seta 18 μm long. Forelegs 28 μm long; femur 10 μm long; genu 3.5 μm long, seta 14 μm long; tibia 5.5 μm long, seta 2.5 μm long; tarsus 5 μm long, outside seta about 21 μm long. Claw 7 μm long, slightly knobbed; axis of featherclaw undivided, 4-rayed on each side. Hindlegs 25 μm long; femur 9 μm long; genu 3 μm long, seta 4 μm long; tibia 4.5 μm long, without seta; tarsus 4.5 μm long, outside seta about 17 μm long. Claw 8 μm long, with slight knob at tip. Anterior coxae contiguous centrally; strong sternal line between forecoxae, coxal setae I wider apart than setae II, which located at the end of sternal ridge, posterior coxae contiguous with anterior ones and with single seta, seta measuring 40 μm long and arising from obvious tubercle. Thanosome divided laterally into broader tergites, and narrower sternites; thanosomal tergites having a middorsal ridge; a rather deep cleft between near shield margin and first tergite, first tergite projected up higher than following tergites. Abdomen with about 23 tergites and 65 sternites; tergites with elongate microtubercles; posterior margins of sternites beset with ovoid microtubercles. Lateral thanosomal seta about 14 μm long, on about sternite 8; 1 rd ventral seta 45 μm long, on sternite 21 and surpassing the second ventral seta; 2 nd ventral seta 9 μm long, on sternite 38; 3 rd or telosomal seta 24 μm long, on about sternite 61 and surpassing base of caudal seta. The thanosome with about 19 tergites and 60 sternites. Telosome with 5 rings, and with fine striations ventrally. Caudal seta about 50 μm long; accessory seta absent. Female genitalia 12 μm long, 20 μm wide, coverflap with closest longitudinal scoring in two series, an anterior with about 17 longitudinal markings and a posterior with about 11 ones, seta 25 μm long and surpassing the first ventral seta.

**MALE.** — 142.5-157.5 μm long, 42.5-47.5 μm wide; male genitalia 9 μm long and 13 μm wide; seta 14 μm long.

*Type locality:* Aswan, collected April 13, 1982.

*Host:* *Ficus sycamorus,* sycamore (Moraceae).

*Relation to host:* Leaf vagrants, preferring the lower surfaces and causing rusting symptoms.

*Type material:* The holotype, allotype, and paratypes slides kept in the collection of Plant Protection Department, National Research Centre, Dokki, Cairo, Egypt.

**Tegolophus niloticus** sp. n.

(Fig. 2)

This new species is close to *Tegolophus hassani* (Keifer) (JEPPSON et al., 1975) (= *Tegonotus hassani* Keifer, 1959), but can be differentiated from it by shield pattern, 5-rayed featherclaw, posterior coxae blank, number of scoring on the female genital coverflap and the shape of genital coverflap.

**FEMALE.** — 170-217.5 μm long, 40-55 μm wide, spindleform, light yellow to yellowish white in color. Rostrum about 23 μm long, projecting diagonally down; chelicerae 15.5 μm long. Shield 41 μm long, 45 μm wide, subtriangular and slightly projecting over rostral base; with incomplete sinuous admedian and submedian lines, submedian lines meeting behind admedian lines forming well defined jug shape; antero-lateral sides with obscure broken lines and punctations. Dorsal tubercles 15 μm apart, situated on the rear margin; the seta 19 μm long, diverging to rear. Forelegs 26 μm long; femur 7.5 μm long; genu 3.5 μm long, seta 17 μm long; tibia 6 μm long, seta 4 μm long; tarsus 5 μm long, outside seta about 17 μm long. Claw 7 μm long, loosely curved, with slight knob at tip. Featherclaw simple, 5-rayed. Hindlegs 23 μm long; femur 6.5 μm long; genu 3 μm long, seta 6 μm long; tibia 4.5 μm long, without seta; tarsus 5 μm long, outside seta about 17 μm long. Claw 8 μm long.
FIG. 2: *Tegolophus niloticus* sp. n.

SA) Side view of anterior section of mite; F) Featherclaw; DA) Dorsal view of anterior section of shield; S) Side view of adult mite; ES) Side skin structure; GFI) Female genitalia and coxae.
Featherclaw 5-rayed. Anterior coxae contiguous, with appreciable sternal ridge; anterior coxae with irregular short lines; coxal setae I a little farther apart than setae II. Posterior coxae contiguous with anterior ones, blank, and with single seta, seta measuring 40 µm long and arising from obvious tubercle. Abdomen with 28 tergites and about 53 sternites, tergites with one very prominent middorsal and two lateral ridges which are fading caudad; sternites with small ovoid microtubercles located on rear margin; last few sternites are microstriated; tergites nonmicrotuberculated. Lateral thanosomal seta 14 µm long, above genital seta, on about sternite 7; 1 st ventral seta 47 µm long, surpassing the second ventral seta, on sternite 17; 2 nd ventral seta 11 µm long, on sternite 30; 3 rd ventral or telosomal seta 22 µm long, on about sternite 49. The thanosome with 23 rings dorsally and 48 ventrally. Thanosome with 5 rings. Caudal setae arise from a slight lobe behind the last tergite. Caudal seta about 62 µm long; accessory seta absent. Female genitalia 15 µm long, 19 µm wide; female coverflap longitudinally furrowed, the furrows tending to be in two transverse groups, about 12 furrows for each; seta 19 µm long, arising from moderate tubercle.

**MALE.** — Not seen on slides.

*Type locality:* Aswan, collected April 13, 1982.

*Host:* Ficus sycamorus, sycamore (Moraceae).

*Relation to host:* The mites are vagrants on lower surface of leaves in association with the former species *Neotegonotus sycamori* sp. n. Symptoms accompanied by both mites were browning and curling of the leaves.

*Type material:* The holotype and paratypes were kept in the collection of Plant Protection Department, National Research Centre, Dokki, Cairo, Egypt.

**REFERENCES**


*Paru en mars 1984.*