

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

BY

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ABSTRACT

Eriophyes olivi, sp. n. and *Oxycenus niloticus*, sp. n. were collected from olive trees *Olea europea* L. Both species are vagrant on the leaves, but the first forms characteristic concave patches on the under-leaf surface while the second prefers the upper surface around midvein. Combined infestation of both species may cause mal-formation to the succulent terminal leaves.

RÉSUMÉ

Eriophyes olivi sp. n. et *Oxycenus niloticus* sp. n. ont été récoltés sur des oliviers. Ces deux espèces vivent sur les feuilles, mais la première forme des taches concaves caractéristiques à la face inférieure des feuilles tandis que la deuxième préfère la face supérieure près de la nervure centrale. L'infestation combinée des deux espèces peut causer des malformations aux feuilles.

INTRODUCTION

Surveying eriophyid mites infesting olive trees in Egypt, HASSAN (1934) recorded *Tegolophus hassani* (Keifer) (= *Tegonotus hassani* K.) as *Phyllocoptes* sp. on leaves. Also ATTIAH (1970) found *Oxypleurites maxwelli* K. (= now *Oxycenus maxwelli* (K.)) infesting olive leaves (JEPPSON *et al.* 1975).

In this paper the two new species *Eriophyes olivi* and *Oxycenus niloticus* are added to our knowledge of the Egyptian fauna of eriophyid mites infesting olive trees, and a thorough description of each is given.

ERIOPHYINAE

***Eriophyes olivi*, sp. n.** (Fig. 1)

This species inhabits olive leaves, but differs from *E. oleae* Nalepa and *E. ligustri* Keifer (1943) by having shield rounded without granulation, without median line, with two complete

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admedian lines diverging posteriorly, submedian lines not clear and with small W-shape ridge at the rear. Coxae without granulation. Microtubercles ovoid and located in sinuate annular rings. 1st ventral seta unusually smaller than the third. Female genitalia posteriorly anchored and with 8 longitudinal scorelines. Leg I & II equal (23.5 μ).

FEMALE. — 107.5 μ -150 μ long, 32.5-40 μ wide ; shape elongate wormlike, narrowed posteriorly ; white in colour. Rostrum about 26 μ long, straight, directed down at slight angle to body. Shield 23 μ long & 26 μ wide, round anteriorly, median line absent, admedian lines complete, submedian lines not clear, two curved lines converging at the posterior of admedian lines, curved ridge w-shaped at the rear margin, and the two sides of shield without granules. Dorsal tubercles 18 μ apart, on rear margin ; the seta 27 μ long and projecting backward. Forelegs 23.5 μ long ; femur 7.5 μ long, seta 9 μ long ; genu 3.5 μ long, seta 20 μ long, tibia 4.5 μ long, seta 4 μ long ; tarsus 5 μ long, outside seta about 20 μ long. Claw 5.8 μ long, curved thick and knobbed. Axis of featherclaw undivided, 4-rayed and shorter than claw. Hindlegs 23.5 μ long ; femur 8.5 μ long, seta 9 μ long ; genu 3.5 μ long, seta 8.5 μ long ; tibia 4.5 μ long, without seta ; tarsus 5 μ long, outside seta about 20 μ long. Claw 7.5 μ long, slight curved thick and without clear knob at tip. Axis of featherclaw undivided, 4 rayed and shorter than claw. Anterior coxae contiguous in midline ; sternal ridge forked ; coxal setae I wider apart than setae II, which situated at base of sternal fork. Posterior coxa contiguous with anterior one, and with a single seta of 23 μ long. All coxae without granules. Abdomen with about 62 rings dorsoventrally. Rings completely microtuberculated ; microtubercles similar in all areas, ovoid, and located in sinuate annular rings. Lateral thanosomal seta 25 μ long, above and behind genital seta, on about ring 10 ; 1st ventral seta 12 μ long, on ring 23 ; 2nd ventral seta 7.5 μ long, on ring 39 ; 3rd or telosomal seta 26 μ long, on about ring 58. The thanosome with 57 rings dorsally and ventrally. Telosome with 5 rings, strong and with microstriations ventrally ; about last 9 rings broader. Caudal and accessory setae arise from a lobe behind the last tergite. Caudal seta about 50 μ long ; accessory seta 4 μ long. Female genitalia 11.5 μ long, 17.5 μ wide, posteriorly anchored, with 8 longitudinal scorelines ; seta 8 μ long, arising from moderate tubercle.

MALE. — 160 μ long, 35 μ wide. Male genitalia 14 μ long, 15 μ wide ; seta 9 μ long.

Type locality : El-fayum. Collected February 26, 1974.

Host : *Olea europea* L., olive.

Relation to host : The mite forms characteristic concave patches on the undersides of the leaves, and may cause malformation to the succulent terminal leaves.

Type material : The holotype, allotype and paratype kept in the collection of Faculty of Agriculture, Cairo University.

***Oxyceus niloticus*, sp. n.**

(Fig. 2)

This species resembles. *Oxyceus maxwelli* (K.) (= *Oxypleurites maxwelli* K. (1939) but differs in having the shield rounded anteriolaterally, without any pattern except two transverse

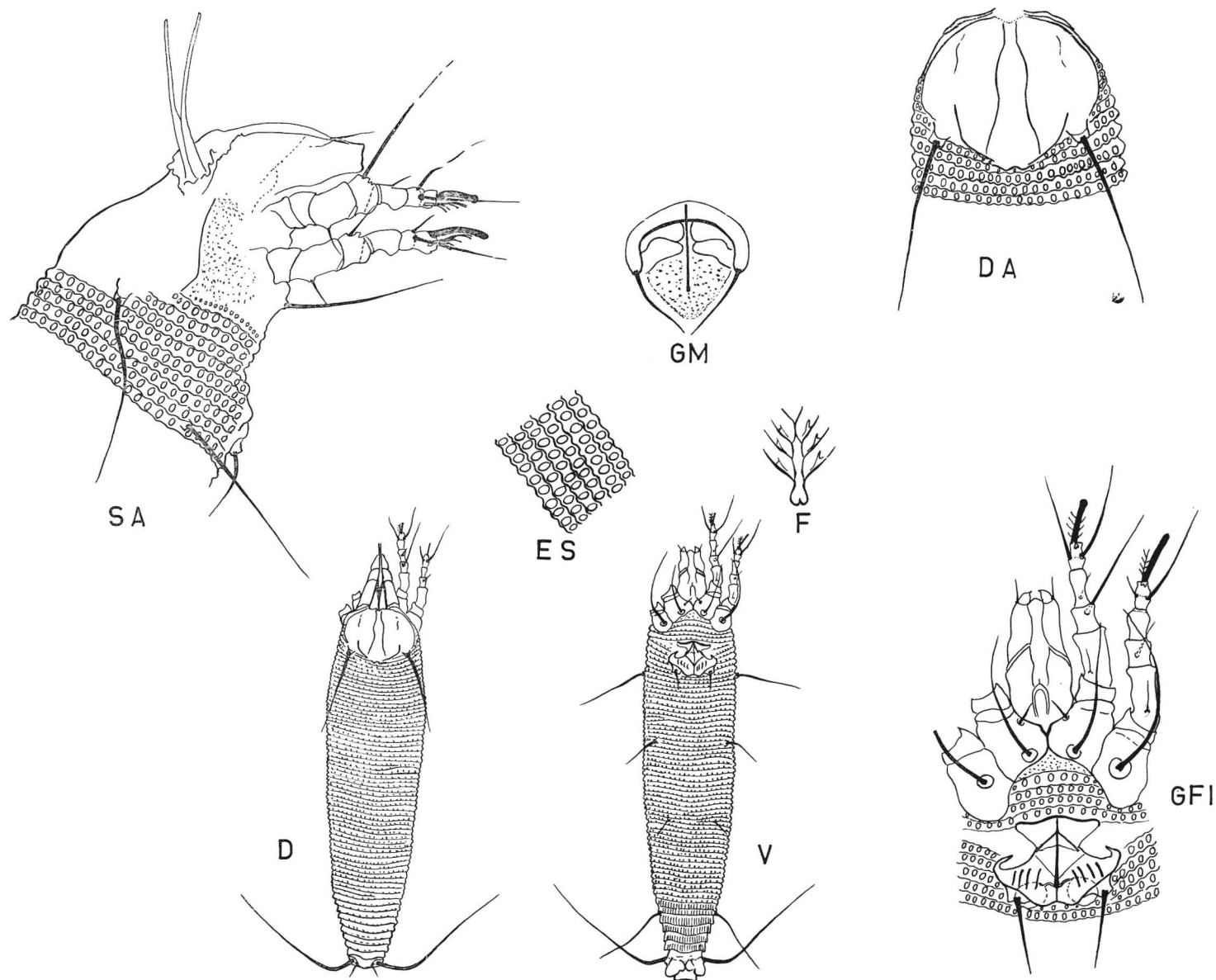


FIG. 1. — *Eriophyes olivi*. n. sp. — SA) side view of anterior section; DA) dorsal view of anterior section of shield; F) featherclaw; V) ventral view of adult mite; D) dorsal view of adult mite; ES) side skin structure; GFI) female genitalia and anterior section; GM) male genitalia, ventral view.

lines posteriorly, the anterior thick and concave, while the posterior thin and nearly straight; the rear margin deeply concave at middle of shield. Three dorsal ridges beginning from about 3rd tergite and ending at the beginning of dorsal depression, the median ridge oriented backwardly and opposite to the two laterals. Tergites 25, sternites about 59. Lateral thanosomal seta $29\ \mu$ long, surpassing first ventral seta. Accessory seta present.

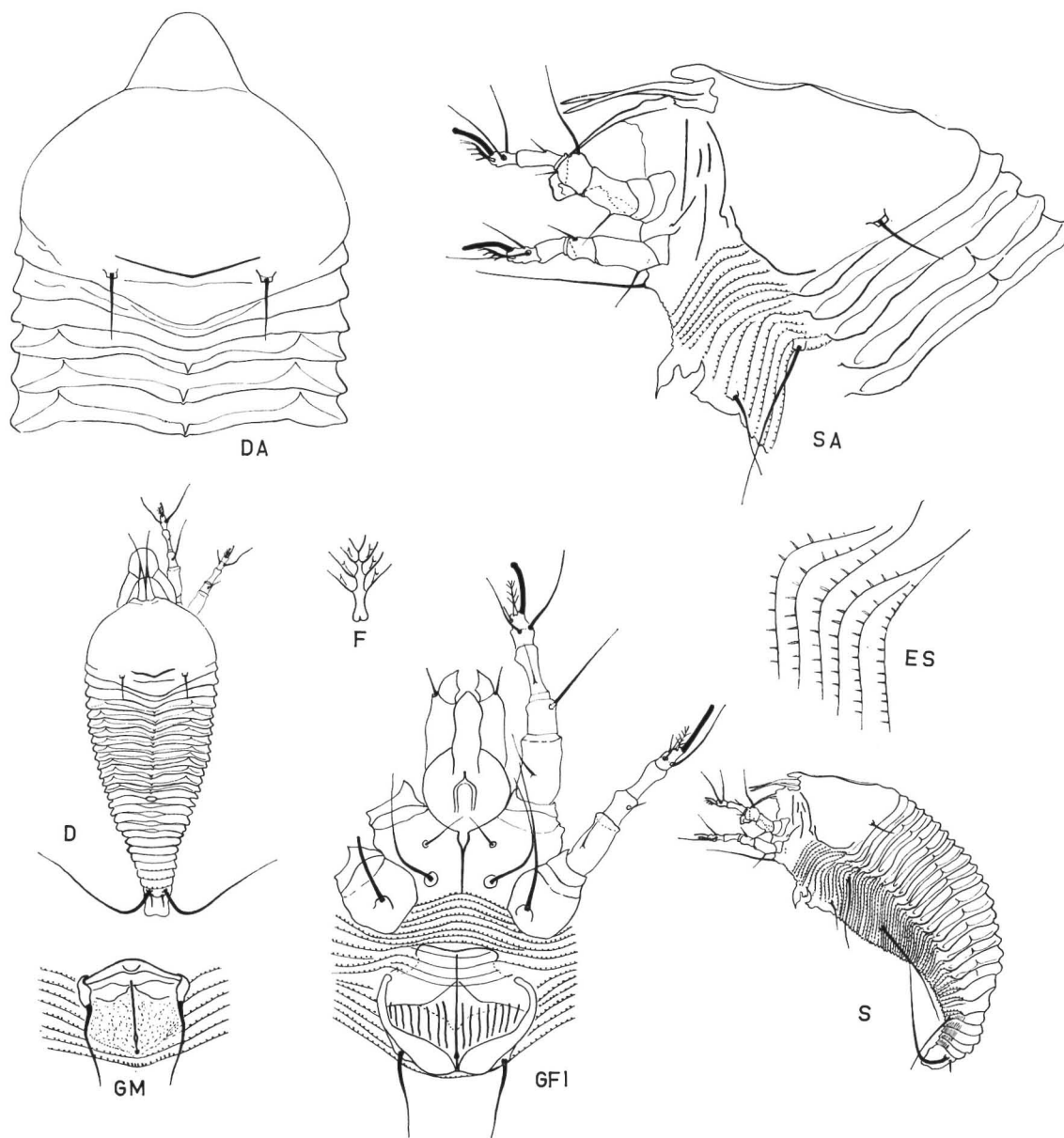


FIG. 2. — *Oxigenus niloticus*, sp. n. — SA) side view of anterior section; DA) dorsal view of anterior section of shield; F) featherclaw; S) side view of adult mite; GFI) female genitalia and anterior section of mite; D) dorsal view of adult mite; ES) side skin structure; GM) male genitalia, ventral view.

FEMALE. — $137.5-172.5\ \mu$ long, $47.5-62.5\ \mu$ wide, flattened, arched strongly in lateral view, wedge-shaped, yellow to amber. Rostrum projecting down. Shield $49\ \mu$ long, $57\ \mu$ wide, subtriangular, extended slightly over the rostrum, rounded anteriolaterally in dorsal view, without

any pattern except two transverse lines posteriorly, the anterior thick and concave and the posterior nearly straight ; the rear margin deeply concave at middle of shield. Dorsal tubercles $24\ \mu$ apart, on rear margin ; the seta $11.5\ \mu$ long and projecting backward. Legs moderately stout. Forelegs $31\ \mu$ long ; femur $10\ \mu$ long, seta $11\ \mu$ long ; genu $5.5\ \mu$ long, seta about $17\ \mu$ long ; tibia $7\ \mu$ long, seta $3.5\ \mu$ long ; tarsus $6\ \mu$ long, outside seta $20\ \mu$ long. Claw $6\ \mu$ long, curved, with clear knob at tip. Axis of featherclaw undivided, 4-rayed with one subdivision on each ray, shorter than claw. Hindlegs $29\ \mu$ long ; femur $9\ \mu$ long, seta $11\ \mu$ long ; genu $5\ \mu$ long, seta $5\ \mu$ long ; tibia $6\ \mu$ long, without seta ; tarsus $6\ \mu$ long ; outside seta $22\ \mu$ long. Claw $6.8\ \mu$ long, slight curved, without clear knob at tip. Axis of featherclaw undivided, 4-rayed with one subdivision on each ray, shorter than claw. Anterior coxae contiguous at the posterior two thirds, two setae on each, coxal setae I wider apart than setae II, which located at rear base of sternal ridge ; posterior coxa contiguous with anterior one, and with single seta, of $32\ \mu$ long. All coxae blank ; coxae I larger than coxae II. Abdomen rooflike. Three dorsal ridges beginning from about 3rd tergite and ending at the beginning of dorsal depression, the median ridge oriented backwardly and opposite to the two dorsolaterals ; most of tergites prominently lobed laterally, a posterior slight notch at the end of dorsal ridges on tergites. Tergites much broader than sternites ; tergites 25, without microtubercles ; sternites about 59, posterior margins of sternites beset with small and slight ovally elongated microtubercles. Lateral thanosomal seta $29\ \mu$ long, surpassing first ventral seta, above and behind genital seta, on about sternite 8 ; 1st ventral seta $50\ \mu$ long, on sternite 21 ; 2nd ventral seta $15\ \mu$ long, on sternite 38 ; 3rd ventral or telosomal seta $29\ \mu$ long, on about sternite 55. The thanosome with 21 tergites and 54 sternites. Telosome with 5 rings, with microstriations ventrally. Caudal and accessory setae arise from a lobe behind the last tergite. Caudal seta $51\ \mu$ long ; accessory seta $53\ \mu$ long. Female genitalia $19\ \mu$ long, $27\ \mu$ wide, and with 16 longitudinal markings ; seta $14.5\ \mu$ long, arising from small tubercle.

MALE. — Male genitalia $15\ \mu$ long, $20\ \mu$ wide ; seta $14.5\ \mu$ long.

Type locality : El-fayum. Collected February 25, 1972.

Host : *Olea europea* L., Olive.

Relation to host : The mite infests leaves preferring the upper surface around midvein.

Type material : The holotype, allotype and paratypes kept in the collection of Faculty of Agriculture, Cairo University.

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Paru en Janvier 1980.