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TWO ERIOPHYID MITES ON TAMARISK TREES IN EGYPT
(ACARI : ERIOPHYOIDEA : ERIOPHYIDAE)

BY B. A. ABOU-AWAD * AND M. A. EL-BOROLOSSY *

TAXONOMY
ERIOPHYID
TAMARIX
N ILOTICA
EGYPT

ABSTRACT: The eriophyid mites, *Dicruvasates tamaricis* n. gen., n. sp., and *Eriophyes dioicae* K. recorded for the first time in Egypt, have been collected from *Tamarix nilotica* (Ehrenb.). The first species was found under the scale-like leaves, wandering along the twigs, while the latter makes small bud galls. Combined infestation of both species may cause rusting to the scale-like leaves and malformation of the succulent twigs. Relationships of the new genus and species are discussed.

DEBSKI (1918) listed a series of *Eriophyes* spp. on tamarisk trees in Egypt. He described the galls caused by these mites to tamarisk twigs, but the structure of the actual eriophyids was overlooked. In this paper, the two eriophyid mites *Dicruvasates tamaricis*, new genus and species, as well as *Eriophyes dioicae* Keifer, a new record, are recorded infesting tamarisk trees in Egypt. A thorough description of the new species, representing a new genus, is given. Measurements are in micrometers (μm). Type materials are in the author's collection.

FAMILY ERIOPHYIDAE NALEPA
SUBFAMILY PHYLLOCOPTINAE NELLEPA

*Dicruvasates* gen. n.

The genus *Acadicrus* Keifer, 1965 (Phyllocoptinae) is defined by having the dorsal tubercles very near rear margin, but directing setae convergently anteriorly; anterior shield lobe small, narrow, ending in 2 spines over rostrum. *Vasates* species have dorsal shield tubercles on rear margin, but with axes converging anteriorly and directing setae convergently to rear. The new genus *Dicruvasates* has some characters of both afore mentioned genera. It is close to *Acadicrus* in having 2 large spines over rostrum, but can be distinguished by having dorsal tubercles with diagonal axes that direct the setae diagonally inward to the rear. It is defined as follows:

Body somewhat robust, fusiform, rings subequal dorsoventrally. Rostrum rather large. Anterior shield lobe somewhat clear and small in some specimens and lacking in others, but always ending in 2 spines, bifurcating over rostrum and subparallel to the chelicera; dorsal tubercles on rear margin with diagonal axes that direct the setae diagonally inward to the rear. Abdomen with subdorsal ridges

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originating beyond the rear of shield margin and continuing caudad. Legs with all standard setae; featherclaw simple; abdomen with all standard setae; female genital coverflap without longitudinal ribs. Types species : *Dicruvasates tamaricis* sp. n.

*Dicruvasates tamaricis* sp. n.

(Fig. 1)

**FEMALE** 157 long, 53 wide, fusiform; colour apparently light orange. Rostrum 37 long, projecting down, apical seta 7 long; chelicera about 30 long. Dorsal shield 33 long (not including bifurcation), 55 wide. Shield pattern obscure, with faint broken lines laterally; median line absent; incomplete admedian lines connecting between dorsal tubercles on rear two thirds of shield, and converging anteriorly at tip, forming a U-shaped mark which meets a cross diverging, bending forward, line, originating between inner sides of dorsal tubercles; incomplete, undulating, circular line originating from near outside of dorsal tubercles and surrounding anteriorly. Dorsal tubercles 26 apart, on rear margin, with diagonal axes that direct the setae diagonally inward to the rear; seta 13 long. Forelegs 27 long; femur 10 long; genu 4 long, seta 21 long; tibia 4 long, seta 10 long; tarsus 6 long, outside seta about 25 long. Claw 10 long, slight curved and knobbed; axis of featherclaw undivided, 7-rayed on each side. Hindlegs 25 long, femur 10 long; genu 4 long, seta 21 long; tibia 4 long, seta 10 long; tarsus 6 long, outside seta about 25 long. Claw 10 long. Coxae smooth with faint broken lines, especially coxae I, 1st setiferous coxal tubercles 9 apart, 2nd setiferous coxal tubercles 4 apart, 3rd setiferous coxal tubercles 20 apart; anterior coxae connate; seta of coxae II measuring 39 long and arising from moderate tubercle. Sternal line present. Abdomen with about 39 tergites and 47 sternites, subdorsal ridges on each side continuing caudad; posterior margins of sternites beset with round microtubercles, tergites without microtubercles. Lateral setiferous tubercles 44 apart; lateral thanosomal seta 37 long, surpassing 1st ventral seta, on about sternite 10; cross distance from lateral setiferous tubercles to 1st ventral seta 19; 1st ventral setiferous tubercles 27 apart, 1st ventral seta 36 long, surpassing 2nd ventral seta, on about sternite 18, the cross distance from 1st ventral setiferous tubercles to 2nd ventral seta 31; 2nd ventral setiferous tubercles 10 apart 2nd ventral seta 28 long, surpassing 3rd ventral seta, on about sternite 29, the cross distance from 2nd setiferous tubercles to 3rd ventral seta 24; 3rd ventral setiferous tubercles 16 apart, 3rd ventral or telosomal seta 25 long, on 6th ring from rear. Thanosome with about 33 tergites and 41 sternites. Telosomal rings with fine striations ventrally. Caudal setiferous tubercles 4 apart, caudal seta about 57 long; accessory seta 3 long. Female genitalia 13 long, 18 wide, without longitudinal ribs; genital seta 33 long and surpassing 1st ventral seta, cross distance from genital tubercles to 1st ventral seta 22.

**MALE** : 165 long, 52.5 wide. Male genitalia 11 long, 15 wide; genital seta 31 long and surpassing 1st ventral seta.


**HOST** : *Tamarix nilotica* (Ehrenb.) Bung, Nile Tamarisk, (Tamaricaceae).

**RELATION TO HOST** : Vagrant species, preferring twigs and causing rusting symptoms.

**REMARKS** : It is interesting to note that tamarisk trees are infested with four different species of eriophyid mites : *Eriophyes tamaricis* Trotter (leaf and twig galls), (TROTTER, 1903); *E. tlaiae* trabut* (galls), (MOLLIARD, 1909); *Vasates immigrans* (KEIFER) (vagrant), (KEIFER, 1952); *E. dioicae* Keifer (small bud galls), (KEIFER, 1979). This new species is the 5th.

**Eriophyes dioicae** Keifer

DEBSKI (1918) reported that the eriophyid mite, *E. synchioides* infests buds of *Tamarix tetragyna* Ehr., but the morphological characters of this species were overlooked. In the present study, the actual
Fig. 1: Dicruvasates tamaricis sp. n.
F. — Featherclaw; V. — Ventral view of mite; D. — Dorsal view of mite; L. — Leg; DA. — Dorsal view of anterior section of shield; SA. — Side view of anterior section of mite; ES. — Side skin structure; GM. — Male genitalia; CFI. — Female genitalia and anterior section of mite.
examination confirmed that the aforenamed species is actually *dioicae*. *E. dioicae* is characterized by its robust wormlike shape; colour right yellow; 7-rayed featherclaw; lack of central lines on the cephalothoracic shield, curved lines and short median line at rear margin of shield between dorsal tubercles.

**Female**: 235-242.5 long, 47 5-62.5 wide. Shield 27 long, 40 wide. Abdominal thanosome with about 47 rings; lateral setiferous tubercle 47 apart, the cross distance from lateral tubercles to 1st ventral seta 30; 1st ventral setiferous tubercles 35 apart, the cross distance from 1st ventral setiferous tubercles to 2nd ventral seta 52; 2nd setiferous tubercles 17 apart, the cross distance from 2nd setiferous tubercles to 3rd ventral seta 64, 3rd setiferous tubercles 24 apart; caudal setiferous tubercles 11 apart. Female genitalia 12 long by 17 wide; coverflap subtriangular and lacking ribs; seta 45 long and surpassing 1st ventral seta.

This species was collected on July 13, 1992 in El-fayum from the same host (*T. nilotica*). The mite was noticed infesting twigs, making small bud galls. This is the first record of this species from Egypt.

**REFERENCES**


