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TWO NEW RECORDS OF ERIOPHYID MITES (Acarina: Eriophyoidea) FOR THE TURKISH FAUNA

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SUMMARY: *Two eriophyid mite species were found in Erzurum Province, Turkey. They are new records for the Turkish fauna. Aceria chondrillae (Canestrini) collected on skeleton weed, Chondrilla juncea. It causes bud deformation on the host. Rhynophytoptus dudichi Farkas was found on plums as leaf vagrant. The morphological characters including the figures of the both species were given.*

TÜRKİYE FAUNASI İÇİN İKİ YENİ ERİOFİT AKAR TÜRÜ (Acarina: Eriophyoidea)

ÖZET: *Eriophyoidea üstfamilyasına bağlı akarlar üzerindeki sistematik ve faunistik araştırmalar ülkemizde oldukça yenidir. 1980 yılından bu yana Erzurum ve çevresinde yapılan sürvey çalışmalarında, daha önce bulunan 18 eriofit türüne ilaveten 2 tür daha bulunmuştur. Aceria chondrillae (Canestrini) çengel sakızı otu Chondrilla juncea 'nın tomurcuklarında deformasyonlara neden olmaktadır. Rhyanophytoptus dudichi Farkas eriklerde serbest yaşayan bir türdür. Bu türler Türkiye faunası için yeni kayıt niteliğindedir.*

INTRODUCTION

Systematic and faunistic studies on the superfamily Eriophyoidea has begun nerly a hundred years ago in the world (Jeppson et al., 1975; Manson, 1984). But they are quite new for Turkey. Bodenheimer (1941), Nizamlıoğlu (1957), Düzgüneş (1952, 1977) and Özer (1958) gave information about the damages of some eriophyid species on economic plants, and their control. Alkan (1952) and Karaca (1956) made studies on some galls and other deformations caused by eriophyid mites and insects on fruit trees, grapevines and some other woody plants. But the first morphological study of eriophyids were conducted by Ecevit (1981) on two eriophyid species, collected from

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apples. Alaoğlu (1984 a, 1984 b) found eighteen eriophyid species of fruit trees, grapevines and some other woody plants during the surveys in some parts of Eastern Anatolia.

Additionally two more eriophyid species new to the Turkish founa were obtained by the same author among the specimens collected in the surveys of 1980-1988.

Family : Eriophyidae

Subfamily : Eriophyinae

Aceria chondrillae (Canestrini, 1892).

Female : (Fig.1) (n=10)

Lenght 180 (130-228) µm, widht 59 (52-65) µm. Wormlike, light yellow.

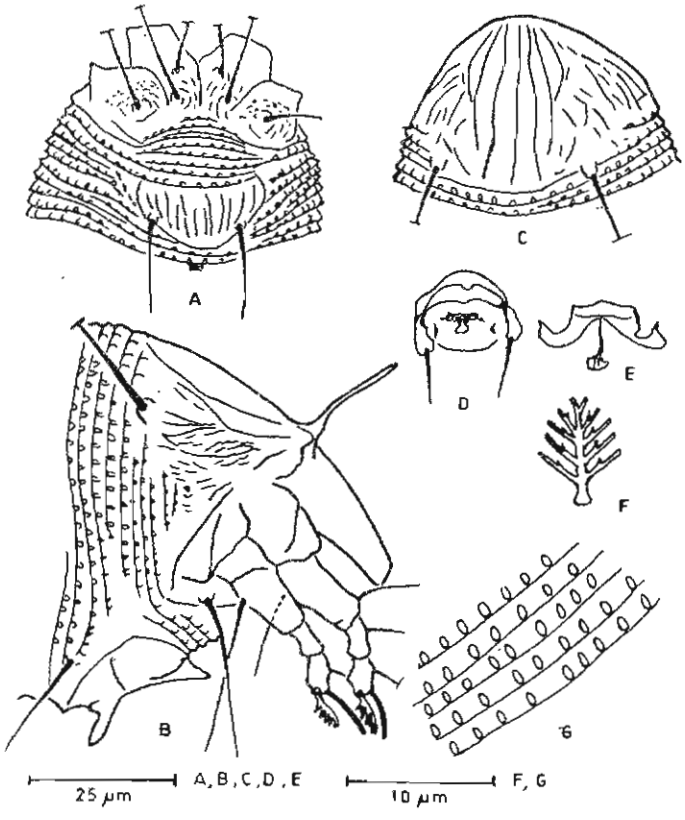

Figure 1. *Aceria chondrillae* (Canestrini) A- Female genitalia and coxae. B- Anterolateral aspect. C-Dorsal shield. D- Male genitalia. E- Female genitalia internal structure. F-Empodium. G. Side skin structure.

Şekil 1. A- Dişi genitalyası ve koksalar. B- Anterolateral görünüş. C-Dorsal plaka. D- Erkek genitalyası. E-Dişi genitalyasının iç yapısı. F- Empodium. G-Lateral integüment yapısı.

Rostrum 18-23 μm long, curved down. Dorsal shield subtriangular, 26-31 μm long, 39-42 μm wide; median and admedian lines complete, submedian lines short, many short lines on the laterals; dorsal tubercles arising from rear shield margin, 24-26 μm apart; dorsal setae 36-39 μm long; directed posteriorly.

Foreleg 26-31 μm long; tibia 6-8 μm long; tarsus 6-8 μm long; claw 7-8 μm long, curved; featherclaw 4 rayed. Hindleg 24-26 μm long; tibia 5-7 μm long; tarsus 5-6 μm long; claw 8-10 μm long. Coxae ornamented. Sternal line present.

Abdomen with 64 (50-70) microtuberculate rings; microtubercles elipsoid, on rear ring margin, Lateral seta on about ring 11-13, 23-26 μm long. Ventral setae: lst on about ring 23-26, 42-52 μm long; 2nd on about ring 38-43, 13-18 μm long; 3 rd on about 6 th ring from rear, 22-26 μm long. Accesory seta present. Genitalia 21-23 μm wide, 16-18 μm long.

Male : (n = 10)

Lenght 150 (125-182) μm, width 48-52 μm.

Material Examined: Erzurum (Center). Many slides.

Distribution : The geographical distribution of *A. chondrillae* is nearly the same as that of the genus *Chondrilla* which extends from Kazakhstan and the Turkmen-Iran border in the east, through Central and Mediterranian Europe to Germany and Portugal in the west (Caresche and Wasphere, 1974).

Host Plants : *A. chondrillae* was found only on *Chondrilla juncea* (Compasitae : Cichoriaceae) in the research area. It has been recorded only on members of the genus *Chondrilla* (Caresche and Wasphere, 1974).

Relation to the Host: It produces the galls as clusters of very tiny leafy hyperplasic buds from the vegatative and flower buds of the host plant. The galls usually reach their maximum diameter of 1.5-2.0 cm. The actively growing galls are green, becoming yellow when growth stops, and finally drying and turning brown.

Occurence : Common, but sometimes in small numbers.

Remarks : Canestrini described for the first time this species as Phytoptus *chondrillae*. It has been transferred to *Eriophyes* and *Aceria* by Nalepa (Caresche and Wasphere, 1974). This mite is only one eriophyid species recorded on *Chondrilla* spp (Davis et al., 1982). It may be a biological control agent of *Chondrilla* spp in Turkey.

Family: Diptilomiopidae

Subfamily : Rhyncaphytoptidae

Rhynophytoptus dudichi Farkas, 1963

Female : (Fig.2) (n = 7).

Lenght 282 (220-325) µm, widht 85 (78-91) µm; fusiform, yellowish light brown. Rosturm 42 (36-49) µm long, beak like, curved abruptly down. Dorsal shield 41 (36-44) µm long, 73 (57-86) µm wide; median line short, on anterior, admedian lines 2/3 of shield lenght, concave. Submedian lines draw semicircular and polygonic shapes; dorsal tubercles on rear shield margin, 26-31 µm apart; dorsal setae 10-13 µm long, directed to rear divergently.

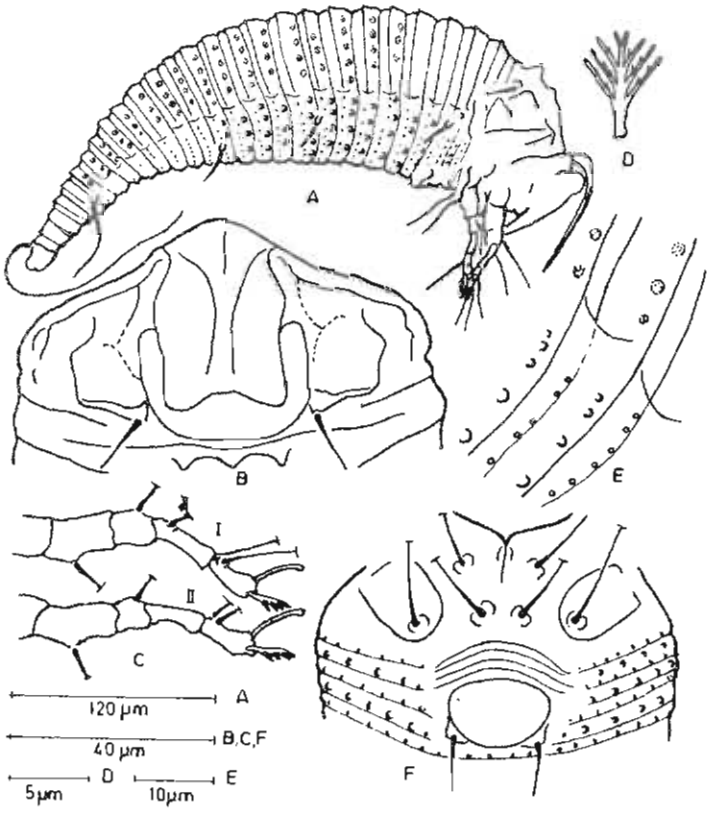

Figure 2. *Rhynophytoptus dudichi* Farkas. A-Lateral aspect. B-Dorsal shield. C-Foreleg and Hindleg. D- Empodium. E Side skin structure. F-Female genitalia and coxae.

Şekil 2. A- Lateral görünüş. B- Dorsal plaka. C- Ön ve arka bacak. D-Empodium. E-Lateral integüment yapısı. F-Dişi genitalyası ve koksalar.

Foreleg 48 (42-57) µm long; Tibia 10-13 µm long; tarsus 9-13 µm long; claw 8-9 µm long; empodium 3 rayed. Hindleg 42 (36-49) µm long; tibia 9-11 µm long; tarsus 10-11 µm long; claw 9-10 µm long. Coxae unornamented; sternal line complete.

Abdomen dorsally concave, with 24-31 tergites and sternites; first 4 tergites and telosomal tergites without microtubercles, other tergites with faintly circular microtubercles; sternites with small circular and big circular microtubercles.

Lateral seta on about 3rd sternit, 13-18 µm long. Ventral setae: 1st on about sternite 9 th, 13-18 µm long; 2 nd on about 13, 13-20 µm long; 3 rd on about sternite 21, 39-44 µm long. Accesory seta absent. Genitalia 23-28 mm wide, 15-19 µm long; coverflap smoth; genital seta 10-15 µm long.

Male : Not seen.

Material Examined: Erzurum-Şenkaya, Tortum and İspir. Totally 4 slides.

Distribution : Hungary, Russia-Armenia (Davis et al., 1982). Host Plants: Plums (prunus spp).

Relation to the Hostt: Leaf vagrant. It was not observed any feeding symptom on the leaves.

Occurence : Occasional.

Remarks : This species was described for the first time by Farkas on *Prunus spinosa* in Hungary. It was also found in Armenia by Bagdasarian (Davis et al., 1982).

Only four species belonging to the genus *Rhynophytoptus* has been described. All of them are Palearctic Region species and only *R. dudichi* was recorded on plums (Davis et al., 1982).

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