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THREE NEW SPECIES OF FALSE SPIDER MITES (ACARI: TENUIPALPIDAE) FROM IRAN

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Summary

There new species of false spider mites Acari : Tenuipalpidae are described from Iran . They are : *Cenopalpus meyerae* sp . n. , *Cenopalpus evini* sp. n., and *Tenuipalpus euonymi* sp. n. these mites have been collected from *Platanus* sp., *Populus albae*,and *Euonymus* sp.respectively,at Centeral and Tehran Provinces

Introduction: Members of the family Tenuipalpidae are plant feeders and occure in many different plants in Iran.Eight species of the genus *Cenopalpus* Pritchard and Baker,1958, and two species of the genus *Tenuipalpus* Donnadieu, 1875 have been reported from Iran so far (Khalilmanesh 1973 and Sepasgozarian, 1977).

Genus *Cenopalpus* is distinguished by having four palpal semgents and a pair of dorsosublateral seta.The sensory organs of tarsi I II are slender, long. The body is elliptical.

The genus *Tenuipalpus* is recognized by the following characters: podosoma is very broad, the opisthosoma narrow. there is usually a pair of long flagellate setae on the posterior margin of the body. the palpus has one, two, or three segments : the ventral plate is lacking, and the leg segments are usually wrinkled.

In this paper, three new species are described.

Materials and Methods

Identification method used for the new species of Teunipalpidae follows the system of Meyer (1979). All measurements are in microns. Mites were stored in 70% ethyl alcohol, cleared in lactic acid and mounted in Hoyer,s medium.

The collections listed in this paper were made by the author. The type material was deposited in the collection of Plant Pests and Diseases Research Inst. Evin, Tehran.

Cenopalpus meyerae sp. n.

(Fig. 1-4)

This species resembles *C.irani* Dosse in the fact that the first pair of dorsal propodosomal setae extends to the base of other member , but it is distinguished from it by different shapes of dorsal setae both in female and nymph which varies from being lanceolate to setiform and by the lack of distinct hysterosomal pores.

Female: Dimension of holotype : Length of body (including rostrum) 324, greatest width of body 175. Rostrum reaching distal end of femur I and is provided with a pair of ventral setae. Palpus terminal segment with one rod and two setae.

Segment III with 2 setae . Rostral shield with one median and 2 lateral lobes on each side, reticulated.

Propodosoma is provided with reticulations which are elongate near lateral margins.

Dorsal propodosomatic setae I 31, II 26, and III 28. Hysterosoma reticulated,reticulation broader than long between centeral setae II and beyond III. Humeral setae 18 long.dorso-centeral hysterosomatic setae I 15, II and III 9 long. Dorso-sublateral hysterosomatic setae 15 long. Dorsolaterals 6 paris I and II 18, III 11, IV 16, and V-VI 9 long. No distinct hysterosomal pores present.

Venter with reticulation posterior to apodemes of coxae IV, with also marginal reticulations lateral to ventral plate.

The podosoma bears a pair of short anterior and a pair of long posterior medioventral setae. Ventral plate with weak reticulation wider than long. with one pair of serrate setae.Genital plate is provided with reticulations and has 2 pairs of setose setae.Anal plate is uniformally reticulated and is provided with 2 pairs of setae, both serrate.

Leg segments: Coxae 3 -2 1- 1-, trochanters 1 -1 -2 -1, femora 4 -4 -2 -1 genua 3 -3 -1 -0, tibiae 5 -5 -3 -3, setae on tarsi not clear.

Nymph (Fig. 4) : Humeral and 3 pairs of propodosomals and first pair of marginal dorsal setae are broadly lanceolate. Dorsolateral hysterosomals II and IV are very long, but III, V, and VI and also dorso- sublaterals and dorsocentrals are minute and setiform .

Male (Fig.4): 264 long (including rostrum), 132 broad. Hysterosoma with a constricting line between metapodosoma and opisthosoma.

All the dorsal body setae are lanceolate and serrate. Dorsolateral hysterosomals decrease in length posteriorly but no. III is much shorter than I, II, and IV.

Field Recognition: This species is red in colour.

Habitat and Locality : Holotype , female and 7 paratype females, 2 paratype males and 2 paratype nymphae from *Platanus* sp. collected at Tehran Province, on 12 August 1989, and deposited in Acarology research section at P.P.D.R.I, No T-612.

This species is named in honor of Dr. Magdalena K.P. Smith Meyer.

Cenopalpus evini sp. n.

(Fig. 5-7)

Diagnosis : This species is a close relative of *C. pennatisetis* Wainstein, but can be differenciated from it by dorsal reticulation pattern, shape of rostral shield and its sculpture , nos. of setae on coxae I and tarsusI , the length of 2nd

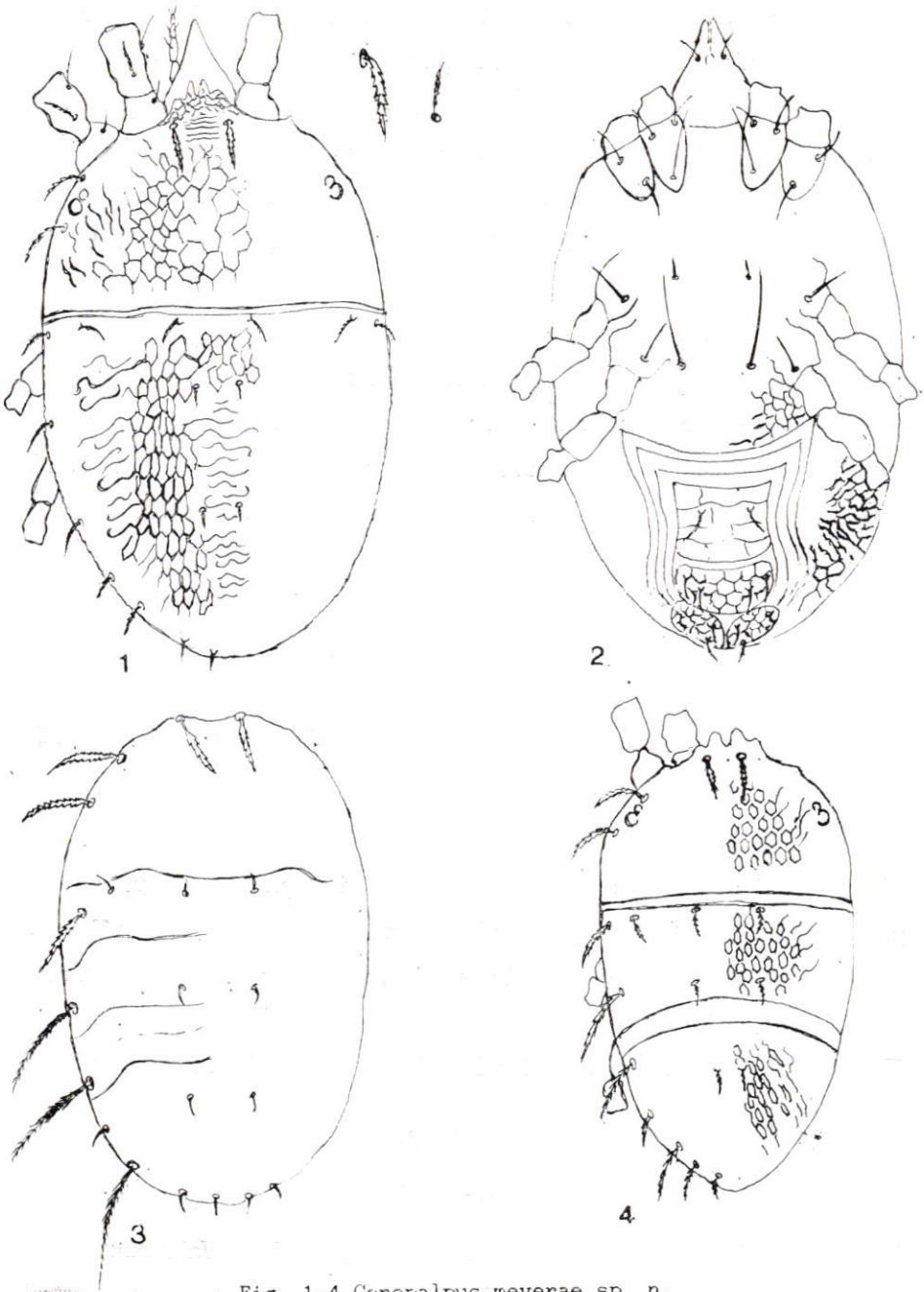

Fig. 1-4 Cenopalpus meyerae sp. n.

1. Dorsal view 2. Ventral view (female) 3. Nymph 4. Male

propodosomal setae which are different . Finally the male of this species has 4 pairs of distinct hysterosomal pores.

Female: Dimesion of holoype: Length of body (including rostrum) 323, greatest width of body 171.

Rostrum withone median and 2 lateral lobes,reticulated and reaches past femora I., with a pair of ventral setae. Palpus 4-segmented, terminal segment with 2 setae and a rod, segment 3 with 2 setae and segment II with I setae.

The dorsal reticulation pattern is depicted in Fig. 5.Dorsal propodosomal setae are sub - spatulate , with setae II being the longest , the lengths of propodosomatic setae I-III are 37, 41, and 31. Humeral and dorso-sublateral hysterosomal setae are 28, and 26 long respectively. Dorso-centeral hysterosomal measure 26, 25, and 20. Marginal setae of hysterosoma I to VI measure 25, 29, 26, 23, 15, and 11 respectively.

Venterally, podosoma with a short pair of anterior and a long pair of posterior medioventral setae. With reticulations posterior to apodemes of coxae. IV. Ventral plate with reticulations , with 2 setae, serrate. Genital and anal plate both reticulated with 2 pairs of lanceolate serrate setae.

Leg segments: coxae 3 -2 -1 -1, trochanters 1 -1 -2 -1, femora 4 -4 -2 -1, genua 3 -3 -1 -0, tibiae 5 -5 -3 -3, tarsi 8 -7 -5 -5.

Male (Fig.7): 252 long and 132 borad. Hysterosoma with a constricting line between metapodosoma and opisthosoma. Dorsal body setae are very long and serrate except for the dorsosublateral and dorso-central setae and 5 th and 6th pair of dorsolateral hysterosomals which are broader.

Hysterosomal dorsum consist of 4 pairs of strong pores (Fig.7).

Field Recognition: This species is orange-red in colour.

Habitat anb Locality: Holotype , female and 4 paratype females,2 paratype males from *Populus albae*,collected at Saveh , Central Provinc on 22 july, 1986, and deposited in Acarology Research section at P.P.D.R.I, No. T-108.

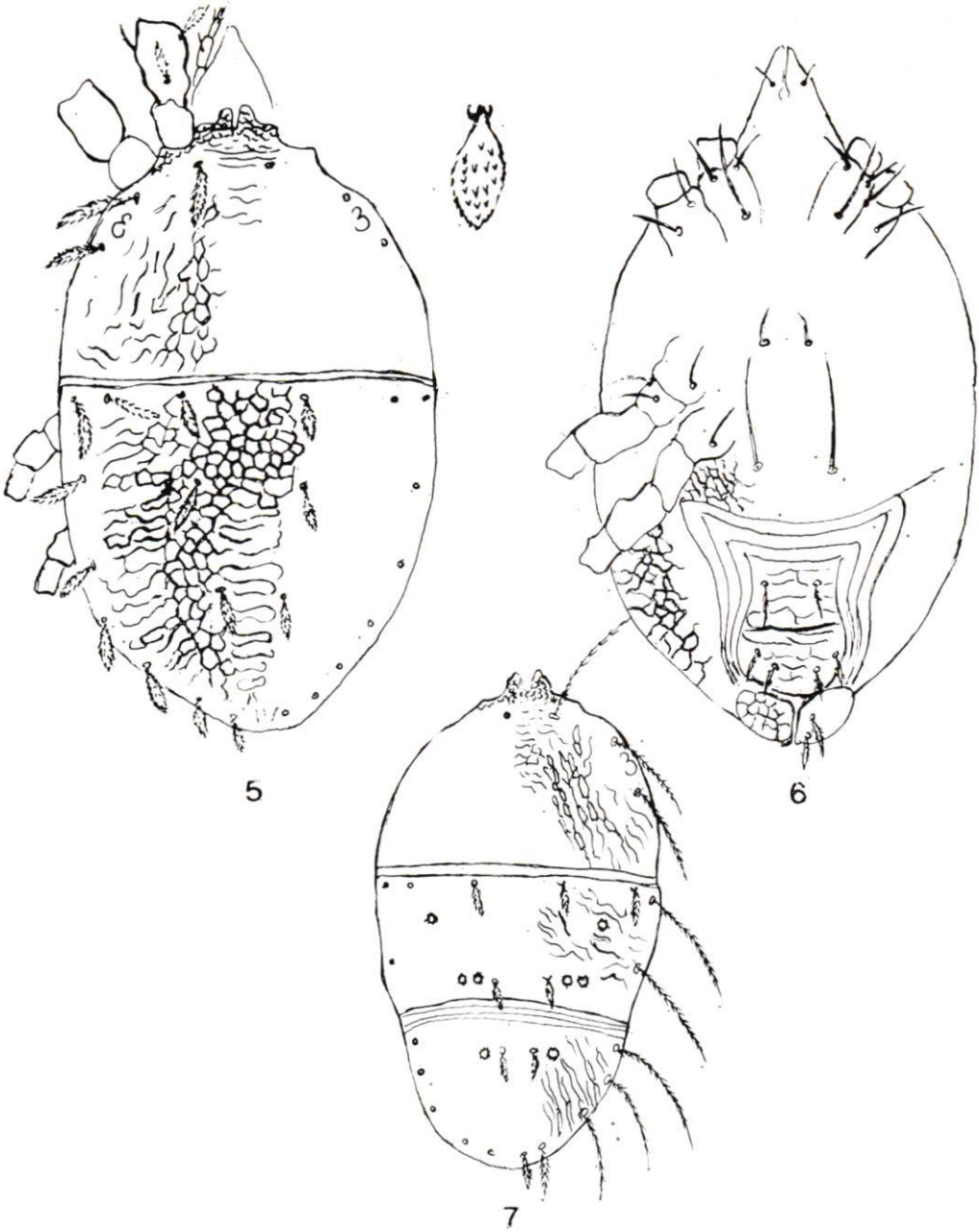

Fig. 5-7 Cenopalpus evini sp. n.

5. Dorsal view 6. Ventral view (female) 7. Male

Tenuipalpus euonymi sp.n.

(Fig. 8-10)

Diagnosis : This species may be differenciated from the related species by the dorsal reticulation pattern and the narrowly lanceolate caudolateral setae of the females and by the striation pattern of ventral and genital plates.

Female (Fig. 8) : Dimension of holotype: Length of body 308, greatest width of body 187. Rostrum with a pair of serrate ventral setae. Palpus three-segmented, terminal segment with a long rod, segment II with a long setose setae.

Propodosoma dorsum is reticulated on medio-lateral area, and with longitudinal striae laterally,meiodorsal area is provided with broken irregular srriae which give the impression of an incomplete reticulum. Dorso - propodosomal setae, I, and II are 9 each , and are setiform, 3rd pair being 16 and is narrowly lanceolate.

Hysterosoma dorsum is reticulated mediolaterally with a groove. mediodorsal area with a kind of broken reticulation and also with irregular striae on lateral margin. Hysterosomal dorsum is strongly elevated. Three pairs of of dorsocentrals slender and slightly serrate. The four pairs of nonflagellate caudolaterls narrowly lanceolate and equal in length, shorter than the distance between their bases. The fourth pair of caudolateral is flagellate. A strong pair of hysterosomal pore present (Fig.8).

Ventrally, podosoma with a short pair of anterior and 2 pairs of long posterior medioventrals.

Ventral and genital area with striae, including one and 2 pairs of setae, anal region with 2 pair of setae. All the ventral setae are nude.

Leg segments. The setal formula of the leg segments is as follows: coxae 3 -2 -1 -1, trochanters 1 -1 -2 -1, femora 4 -4 -2 -1,genua 1 -1 -0 -0, tibia 5 -5 -3-3, tarsi? -? -5 -5. Dorsal setae of of femur I and II serrate.

Male (Fig 10) : 266 long and 154 broad . Hysterosoma with a

constricting line between metapodosoma and opisthosoma. Dorsal body setae are longer than those of female and as long as the other diagnostic characteristics are concerned, the male is similar to female.

Field Recognition: This species is orange - red in colour .

Habitat and Locality: Holotype female, 3 paratype females and 2 paratype males from *Euonymus* sp., Tehran Province, Sept 2, 1989, deposited in Acarology Research section of P.P.D.R.I. Accession T-122.

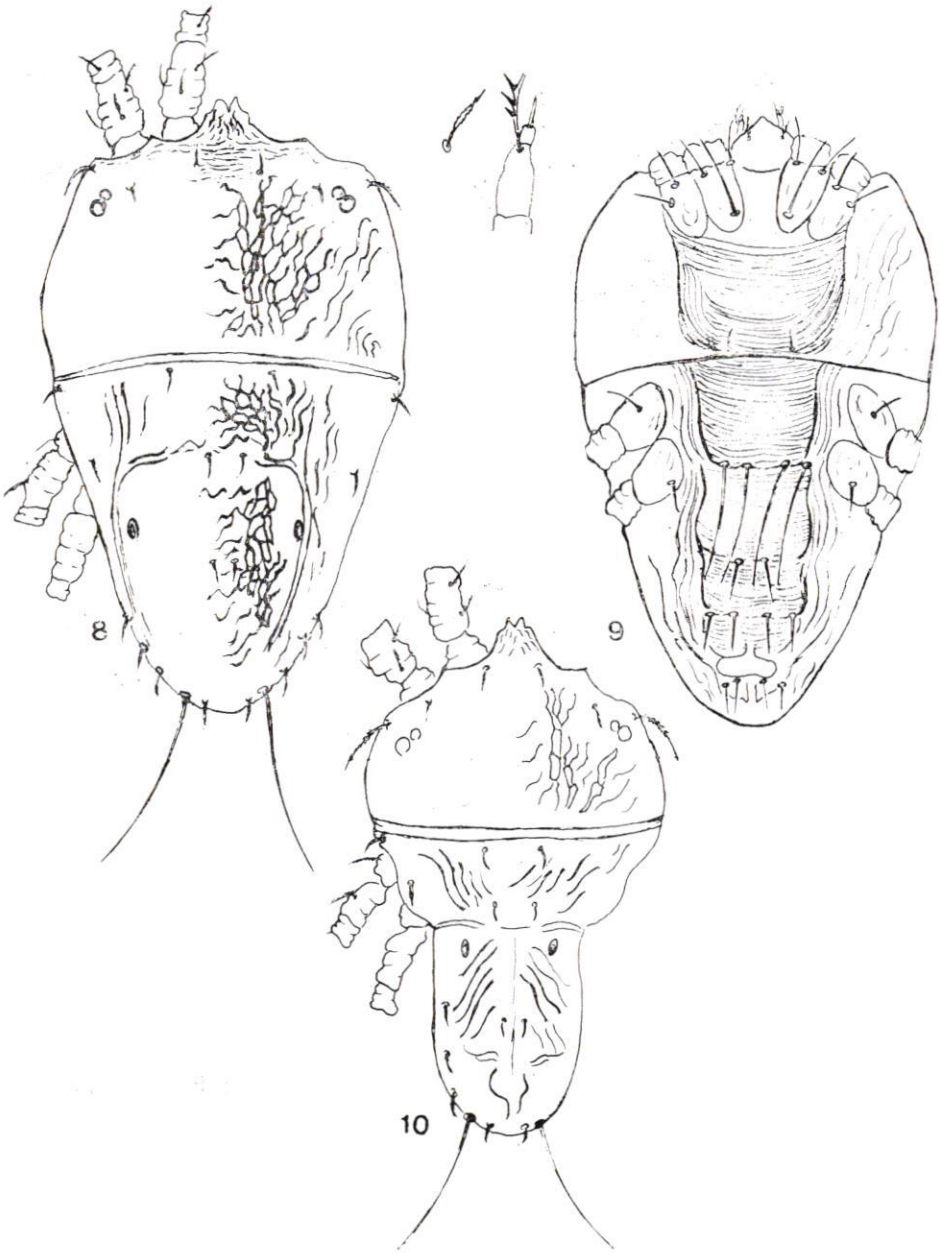

Fig. 8-10 Tenuipalpus euonymi sp. n.

8. Dorsal view 9. Ventral view (female). 10. Male

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