FOUR NEW SPECIES OF THE GENUS *TENUIPALPUS* FROM CHINA (ACARI: TENUIPALPIDAE)

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ABSTRACT

Four new species of the genus *Tenuipalpus* from China are described in this paper. These are: *T. lulinicus, T. jianfengensis, T. muguanicus, T. taonicus.*

False spider mites of the genus *Tenuipalpus* Donnadieu, 1875, are characterized by a broad podosoma and narrow opisthosoma; the 5th dorsolateral hysterosomal is flagelliform or absent in some species.

The authors collected 4 new species of *Tenuipalpus* from China. All specimens from each species described below are deposited in the Museum of Natural History, Shanghai.

Tenuipalpus lulinicus Ma and Yuan, NEW SPECIES

(Fig. 1-3)

FEMALE: Body red 298μ long, 157μ wide. Propodosoma with irregular, transverse striae mediodorsally, and with longitudinal striae mediolaterally; without reticulations. Metapodosoma with transverse striae mediodorsally,

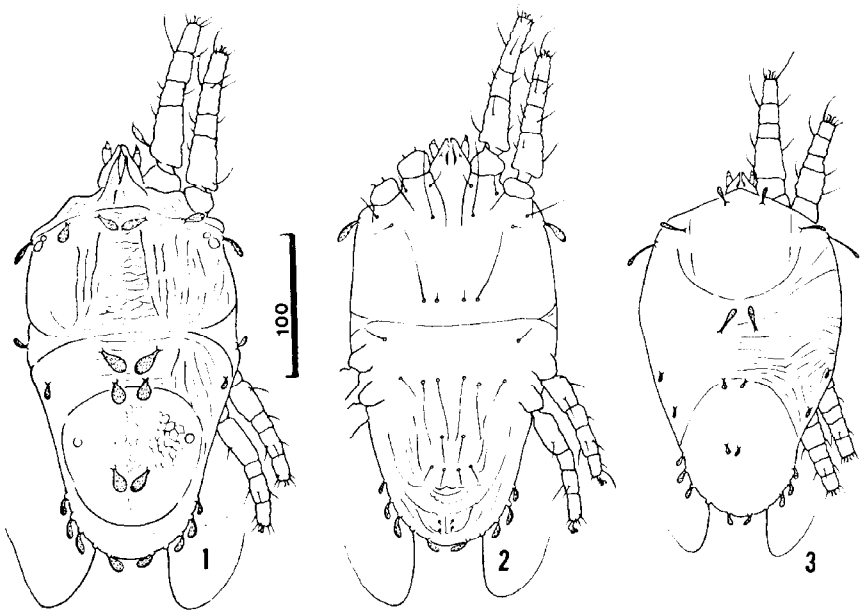

Fig. 1-3. *Tenuipalpus lulinicus* Ma and Yuan. 1) Dorsal, 2) ventral aspect, holotype female; 3) deutonymph, dorsal aspect; paratype.

opisthosoma with longitudinal striae mediodorsally, and with dorsolateral reticulations. Rostrum short, reaching end of trochanter. Dorsal setae 13 pairs; dorsal propodosomals, humerales, 1st, 2nd, 3rd, 4th, and 6th dorsolateral hysterosomals spatulate; dorsocentral hysterosomals 1-3 phylloid; 5th dorsolateral hysterosomals flagelliform. Opisthosoma with 1 pair of large arcular pores. Podosoma ventrally with 2 pairs of anterior medioventral setae, the outer pair long and the inner pair short, and with 2 pairs of long posterior medioventral setae. Hypostomal setae pubescent. Setae on segments of legs distributed as follows; trochanter I-IV—1,1,2,1; femur I-IV—4,4,2,1; genu I-IV—3,3,1,0; tibia I-IV—5,5,3,3; tarsus I-IV—9,9,5,5. Tarsus I and II each with a slender sensory rod.

MALE: Unknown.

DEUTONYMPHS: Body 247μ long, 144μ wide. First and 2nd dorsal propodosomals spatulate, 10μ long; 3rd dorsal propodosomals strongly setiform, 18μ long. Humerales, 1st and 2nd dorsolateral hysterosomals minute, lanceolate, 4-5μ long. Dorsocentral hysterosomals spatulate, 1st 13μ long, 2nd, and 3rd 5-6μ long. Third, 4th, and 6th dorsolateral hysterosomals spatulate, 8-9μ long, 5th dorsolateral hysterosomals flagelliform. Podosoma ventrally with 2 pairs of anterior medioventral setae, and 1 pair of posterior medioventral setae.
PROTONYMPHS: Body 179μ long, 108μ wide. Third dorsal propodosomals slightly slender, 5th dorsolateral hysterosomals flagelliform, other dorsal setae very short, setiform or lanceolate. Podosoma ventrally with 2 pairs of anterior medioventral setae, posterior medioventral setae absent.
HOLOTYPE ♀: Haikou, Hainan Island, Guangdong, China, 24-XI-1977 by Yuan Yi-lan, on *Ruellia drymophila* (Diels).
PARATYPES: 1 ♀, 3 deutonymphs, 2 protonymphs, locality, host and date same as holotype.
REMARKS: *Tenuipalpus lulinicus* is similar to *T. pacificus* Baker, 1945, in having the venter of the podosoma with 2 pairs of anterior medioventral setae and 2 pairs posterior medioventral setae. This new species is distinct from the latter in having dorsocentral hysterosomal phylloid setae.

Tenuipalpus jianfengensis Ma and Yuan, NEW SPECIES

(Fig. 4-5)

FEMALE: Body red, 288μ long, 155μ wide. Propodosoma with irregular transverse striae mediodorsally, and with a few areolae mediolaterally. Hysterosoma with coalescent areolae mediodorsally, and with irregular striae mediolaterally. Rostrum reaching middle of femur. Dorsal setae 13 pairs, minute, setiform; dorsolateral hysterosomals shorter than distances between bases, 5th dorsolateral hysterosomals flagelliform. Opisthosoma with 1 pair of pores. Podosoma ventrally with 1 pair anterior medioventral setae, and 1 pair of posterior medioventral setae. Hypostomal and coxal 2 setae pubescent. Setae on segments of legs distributed as follows: trochanter I-IV —1,1,2,1; femur I-IV—4,4,2,1; genu I-IV—2,2,0,0; tibia I-IV—5,5,3,3; tarsus I-IV—9,9,5,5. Tarsus I and II each with slender sensory rod.

MALE: Unknown.

DEUTONYMPHS: Body 288μ long, 168μ wide. First dorsal propodosomals nar-

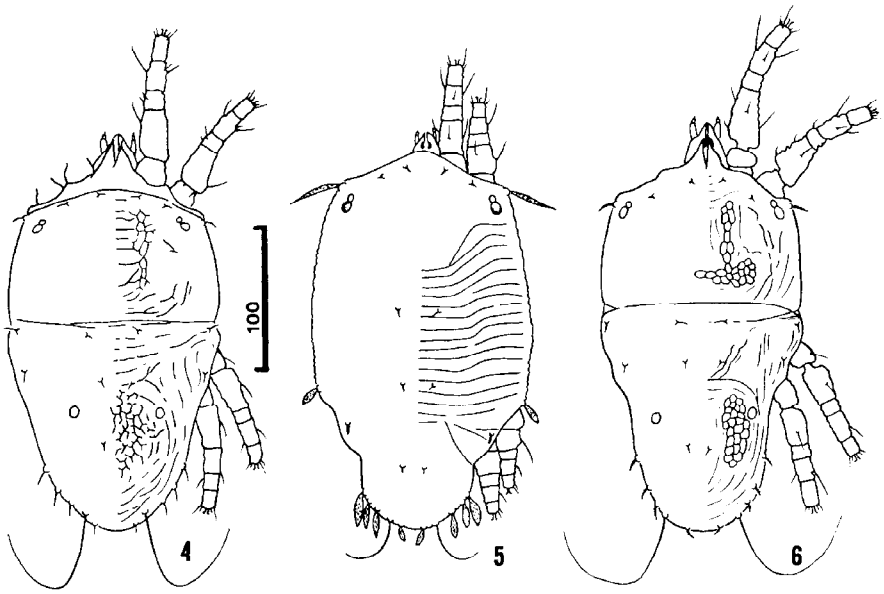

Fig. 4-6. *Tenuipalpus jianfengensis* Ma and Yuan. 4) Dorsal aspect, holotype female; 5) dorsal aspect; paratype deutonymph. *Tenuipalpus muguanicus* Ma and Yuan. 6) Dorsal aspect, female holotype.

row lanceolate, 3μ long; 2nd dorsal propodosomals spatulate, 5μ long; 3rd propodosomals long lanceolate, 31μ long, 3μ wide. Dorsocentral hysterosomals and 1st dorsolateral hysterosomals minute, setiform. Humerales and 2nd, 3rd, 4th, 6th dorsolateral hysterosomals spatulate, 14-20μ long; 5th dorsolateral hysterosomals flagelliform.

HOLOTYPE ♀: Jianfeng, Hainan Island, Guangdong, China, 4-XII-1977 by Lin Yan-mou, host unknown.

PARATYPES: 3 ♀♀, 2 deutonymphs, locality, host and date same as the holotype.

REMARKS: *Tenuipalpus jianfengensis* is similar to *T. zhizhilashviliae* Reck, 1953, in having the dorsal setae minute, dorsolateral hysterosomals shorter than distances between bases, but differs in that the genu I and II with 2 setae, and propodosoma with a few areolae mediolaterally and hysterosoma with coalescent areolae mediodorsally.

Tenuipalpus muguanicus Ma and Yuan, NEW SPECIES

(Fig. 6)

FEMALE: Body red, 294μ long, 144μ wide. Propodosoma with irregular striae anterior mediodorsally, a few coalescent areolae posterior mediodorsally; with dorsolateral reticulations. Metapodosoma and opisthosoma with irregular striae mediodorsally, opisthosoma with even reticulations mediolaterally. Rostrum short, reaching end trochanter. Dorsal setae 13 pairs, minute, setiform or narrow lanceolate; dorsolateral hysterosomals shorter than distances between bases, 5th dorsolateral hysterosomals flagelliform. Opisthosoma with

1 pair of pores. Podosoma ventrally with 1 pair of anterior medioventral setae and with 1 pair of posterior medioventral setae. Hypostomal and coxal setae 2,4,5 pubescent. Setae on segments of legs distributed as follows: trochanter I-IV—1,1,2,1; femur I-IV—4,4,2,1; genu I-IV—1,1,0,0; tibia I-IV —5,5,3,3; tarsus I-IV—9,9,5,5. Tarsus I and II with slender sensory rod.

MALE: Unknown.

HOLOTYPE ♀: Qufu, Shandong, China, 26-VIII-1978 by Yuan Yi-lan, on *Carica papaya* L.

REMARKS: *Tenuipalpus muguanicus* is similar to *T. zhizhilashviliae* Reck, 1953, in having the dorsal setae minute, and the dorsolateral hysterosomals are shorter than distances between their bases; they differ in that the former has a propodosoma with a reticulate posterior mediodorsally and dorsolaterally, and the opisthosoma has even reticulations mediolaterally.

Tenuipalpus taonicus Ma and Yuan, NEW SPECIES

(Fig. 7-9)

FEMALE: Body red 307μ long, 181μ wide. Propodosoma with even areolae mediodorsally, mediolateral area smooth. Metapodosoma with dorsum evenly areolate. Opisthosoma with coalescent areolae mediodorsally, and with even areolae mediolaterally. Rostrum short, reaching the end of trochanter. Dorsal setae 13 pairs, minute, setiform or lanceolate; dorsolateral hysterosomals shorter than distances between bases and 5th dorsolateral hysterosomals flagelliform. Opisthosoma with 1 pair of pores. Ventral setae and setae on legs identical with *T. muguanicus*.

MALE: Body 268μ long, 139μ wide. Podosomal integument smooth, with a few irregular longitudinal striae. Dorsal idiosomal setae similar to those of female. Medioventral opisthosomals located at middle.

DEUTONYMPHS: Body 294μ long, 178μ wide. First and 2nd dorsal propodosomals, dorsocentral hysterosomals, and 1st dorsolateral hysterosomals minute; 3rd dorsal propodosomal setiform, 16μ long. Humerales lanceolate, 6μ long. Second, 3rd, 4th and 6th dorsolateral hysterosomals lanceolate, longer than distances between bases; 5th dorsolateral hysterosomals flagelliform.

HOLOTYPE ♀: Ruijin, Jiangxi, China, 15-IX-1975 by Ma En-pei, on *Prunus persica* (L.).

ALLOTYPE ♂: Xian, Shaanxi, 25-VII-1978 by Chen Xi-wen, host same as the holotype.

PARATYPES: 3 nymphs, locality, host and date same as the holotype; 12 ♀♀, 3 nymphs, Fengcheng, Jiangxi, 25-IX-1975 by Ma En-pei, host same as holotype; 4 ♀♀, Fengcheng, Jiangxi, 25-IX-1975 by Ma En-pei, on *Amaranthus tricolor* L.; 1 ♀, 2 nymphs, Nanning, Guangxi, 14-XII-1977 by Ma En-pei, on *Melia azedarach* L.; 6♀♀, 2 nymphs, 1 ♂, Xian, Shaanxi, 23-VII-1978 by Chen Xi-wen on *Juglans regia* L.; 8 ♀♀, 1♂, Xian, Shaanxi, 23-VII-1978 by Ma En-pei, on *Prunus serrulata* Lindl.; 1 ♀, locality, host and date same as allotype; 2 ♀♀, Xian, Shaanxi, 25-VII-1978 by Ma En-pei, on *Gomphrena globosa* L.; 5 ♀♀, Hefei, Anhui, 22-VIII-1978 by Ma En-pei, on *Catalpa ovata* G. Don; 5 ♀♀, Qufu, Shandong, 26-VIII-1978 by Yuan Yi-lan, on *Malus pumila* Mill.

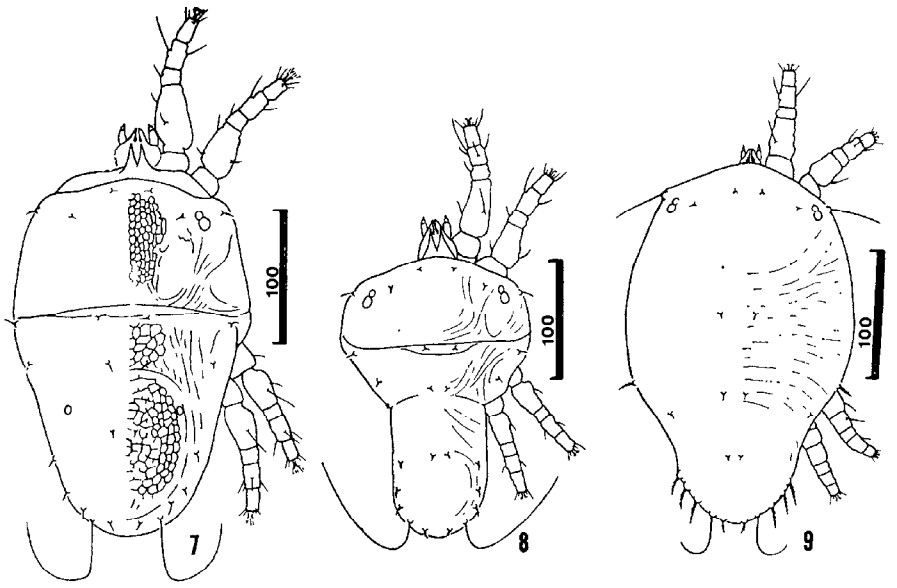

Fig. 7-9. *Tenuipalpus taonicus* Ma and Yuan. 7) female, dorsal aspect; holotype; 8) male, dorsal aspect; allotype; 9) deutonymph, dorsal aspect; paratype.

REMARKS: *Tenuipalpus taonicus* is similar to *T. zhizhilashviliae* Reck, 1953, in having the dorsal setae minute, and the dorsolateral hysterosomals shorter than distances between bases, but differs in that the propodosoma and metapodosoma have even areolae mediodorsally, and the opisthosoma has even areolae mediolaterally.

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