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NEW SPECIES AND NEW HOST RECORD OF TENUIPALPID MITES FROM PUNJAB (ACARI : TENUIPALPIDAE)

BY G.L. SADANA and RAJINDER SIDHU

ABSTRACT: A new species of mites namely Ultratenuipalpus gonianaensis sp. nov. has been described and illustrated. A key to the species of Ultratenuipalpus is also given. Fourteen species of tenuipalpid mites have been recorded on new hosts. Brevipalpus rica Chaudhri and Tenuipalpus decus Chaudhri, Akbar & Rasool have been recorded for the first time from India and B. assamensis Sadana & Gupta, B. gauhatiensis Sadana & Gupta, B. solanensis Sadana & Gupta and B. tinsukiaensis Sadana and Gupta from Punjab.

PLANT MITES
NEW SPECIES
INDIA
PUNJAB

ACARIENS
PLANTICOLES
NOUVELLE
ESPÈCE
INDE PUNJAB

RÉSUMÉ: Une nouvelle espèce, Ultratenuipalpus gonianaensis sp. nov., est décrite et figurée. Une clé des espèces du genre Ultratenuipalpus est donnée. Quatorze espèces de tenuipalpides ont été récoltées sur des hôtes nouveaux. Brevipalpus rica Chaudhri et Tenuipalpus decus Chaudhri, Akbar & Rasool ont été pour la première fois récoltés en Inde; B. assamensis Sadana & Gupta B. gauhatiensis Sadana & Gupta, B. solanensis Sadana & Gupta et B. tinsukiaensis Sadana & Gupta, au Punjab.

The mites of the family Tenuipalpidae are of considerable economic importance as they infest fruit trees, vegetables, crops, medicinal, ornamental and other economic plants and bring about economic losses. Despite of their great economic importance and common occurrence, very little efforts have been made to explore the mite fauna infesting economic plants in the Punjab State. Whatever little we know about them is due to the work of GUPTA et al. 1971, SADANA and CHHABRA, 1980 a, b & c, SADANA and GUPTA, 1982 and 1984, SADANA et al., 1981 & 1985 and SADANA, 1985. With this view in mind, we made extensive surveys of the Punjab State and recorded a new species of Ultratenuipalpus Mitrofanov and many new hosts of tenuipalpid mites which are reported hereunder. A key to the species of Ultratenuipalpus is also given.

A large number of mites were collected during the survey from different economic plants. Since most of the collected material has been reported earlier by different authors quoted above from the Punjab State, therefore, only the new species and those collected on new host plants are reported hereunder together with collection data.

1. Brevipalpus assamensis Sadana and Gupta

2 ♀♀ India : Kup Kalan (Sangrur) on Psidium guajava, 23.ii.1987. Coll. RAM DAS.

This species is reported for the first time from Punjab.

2. Brevipalpus californicus (Banks)


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3. *Brevipalpus gauhatiensis* Sadana and Gupta

2 ♀♀, India : Rupnagar, on unidentified plant, 1.xi.1986. Coll. PIARA LAL.

This species is recorded for the first time from Punjab.

4. *Brevipalpus karachiensis* Chaudhri, Akbar and Rasool


5. *Brevipalpus obovatus* Donnadieu


6. *Brevipalpus phoenicis* (Geijskes)


7. *Brevipalpus rica* Chaudhri

5 ♀♀, India : Sunet (Ludhiana), on *Tecoma stans*, 4 ♀♀, 24.iv.87, coll. HARI SINGH. 3 ♀♀, Bassi Pathana (Sirhind), on *Eriobotrya japonica*, 29.iv.1987, coll. VIJAY KUMAR.

This species is recorded for the first time from India. Earlier it has been reported from Pakistan.

8. *Brevipalpus rugulosus* Chaudhri, Akbar & Rasool

3 ♀♀, India : Habowal (Ludhiana), on *Eriobotrya japonica*, 26.viii.1986, coll. JAGJIT KUMAR.

2 All measurements in microns

9. *Brevipalpus tinsukiaensis* Sadana and Gupta


This species is recorded for the first time from Punjab.

10. *Tenuipalpus solanensis* Sadana and Gupta

2 ♀♀ India : Adampur (Jullundur), on *Pyrus communis*, 10.iii.1987, coll. AJIT SINGH.

11. *Tenuipalpus ludhianaensis* Sadana and Chhabra

7 ♀♀, India : Kup Kalan (Sangrur), on *Psidium guajava*, 23.XI.1987, coll. RAM DAS.

12. *Tenuipalpus kesari* Sadana, Gupta and Goyal


13. *Tenuipalpus sharmai* Sadana and Gupta

3 ♀♀, India : Hoshiarpur, on *Ficus carica* 18.vii.1986, coll. RAM DAS.

14. *Tenuipalpus decus* Chaudhri, Akbar and Rasool

2 ♀♀, India : P.A.U. Ludhiana, on *Pyrus communis*, 11.iii.1987, coll. HARI SINGH.

This species has been recorded for the first time from India. Earlier it has been reported from Pakistan.

15. *Ultratenuipalpus gonianaensis* sp. nov. (Figs. 1-3)

Female : Body 256 2 long including rostrum, 216 long without rostrum and 132 wide. Palpus 4 segmented, terminal segment with a sensory rod and 2 setae. Propodosoma provided with a bifurcated
rostrum reaching up to middle of femur-1. Propodosoma bare, with a few striations at posterolateral corners. Propodosomal setae 3 pairs. I 14, II 14 and III 15 long. Hysterosoma bare, however, provided with a few faint transverse striations close to second and third dorsocentral setae. Humeral setae 1 pair, serrate, measuring 14. Dorso-central setae 3 pairs, I and III serrate, II simple; I 12, II 3 and III 13 long. Dorsolateral setae 6 pairs, I 2, II 15, III 14, IV 15, V 14 and VI 15 long. All setae except the first pair serrate and spatulate.

Venter of propodosoma and hysterosoma with finger print like pattern throughout. Ventral propodosomal setae 1 pair, long and filiform, measuring 26; anterior medioventral metapodosomal setae 1 pair, minute, measuring 6; ventral plate alongwith its setae absent; genital plate not demarcated but this area provided with three pairs of setae. Anal plate area provided with a pair of minute anal setae, measuring 3; paraanal setae 2 pairs, each measuring 3.

Legs 4 pairs, segments wrinkled. The counts of leg setae and solenidia (in parenthesis) are: coxae 1-1-1-0, trochanters 1-0-1-0, femora 2-2-1-1, genua 1-1-1-0, tibiae 2 1 (pectinate)-2 1 (pectinate)-2-2, Tarsi 3(1)-3 (1)-3(1)-3(1).

Male: Not known.

Collection data: Holotype: ♀ marked on slide No. 39, India Goniana (Faridkot) on Citrus limon, 10.i.1987, coll. RAM DAS. Paratype: ♀, slide No. 77, P.A.U. Ludhiana, on Psidium guajava 19.iii.87, coll RAJINDER.

Repository: The holotype and paratype are housed in the Acarological collections of the Department of zoology, Punjab Agricultural University, Ludhiana.

The present form differs distinctly from Ultratenuipalpus meekri (De Leon) and U. umatataensis Meyer, the only known species of this genus in having different setal formulae on various leg segments. It can further be distinguished from U. umatataensis in having lanceolate and minute first pair of dorsolateral hysterosomal setae and from U. meekeri in not possessing any serrate setae on second palpal segment.

FIGS. 1-3: Ultratenuipalpus gonianaensis sp. nov. 1. — Dorsal view of female (left half) and ventral view of female (right half). 2. — Rostral shield. 3. — Palpus.
KEY TO THE SPECIES OF _ULRATENUIPALPUS_

1. First pair of dorsolateral hysterosomal setae of normal length and spatulate .......... _Umatataensis_ Meyer
   — First pairs of dorsolateral hysterosomal setae lanceolate and minute .......................... 2
2. Second palpal segment with serrate setae .......................................................... _meekeri_ De Leon
   — Second palpal segment without serrate setae, instead provided with a normal seta .................. _gonianaensis_ sp. nov.

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