

## A New *Brevipalpus* Mite (Acari: Tenuipalpidae) From Fruit Trees in Jaranwala (Punjab), Pakistan

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Abstract.- *Brevipalpus* is an important genus of the family: Tenuipalpidae. A new species, *Brevipalpus shahbazii* n. sp. (Acari: Tenuipalpidae) is reported from central Punjab, District Faisalabad, Pakistan. Description and figures of new species based on females.

**Key Words:** Acari, Tenuipalpidae, false spiders mite, *Brevipalpus*, Pakistan.

### INTRODUCTION

The members of the genus *Brevipalpus* of family Tenuipalpidae are phytophagous and some are serious pests of crop and ornamental plants in the world (Jeppson *et al.*, 1975, Evan *et al.*, 1993). Some of them are cosmopolitan.

A number of papers on Tenuipalpidae of Pakistan have been published by Chaudhri (1972), Chaudhri *et al.* (1974), Ahmad and Akbar (1984), Chaudhri and Akbar (1985), Akbar and Aheer (1990, 1994), Rui *et al.* (2003) and Hassan *et al.* (2002, 2003, 2005a,b). To date, 102 species belonging to this family, including 42 species of the genus *Brevipalpus*, have been recorded and described previously from Pakistan. However, seems that the fauna still remains unexplored in this country.

In this paper, we describe a new species of *Brevipalpus* associated with Banana (*Musa paradisiaca* L.) and Pomegranate (*Punica granatum* L.). The setal nomenclature follows that of Lindquist (1985). All the measurements are given in micrometers ( $\mu\text{m}$ ). One holotype and four paratypes of the new species are deposited in the Acarology Research Laboratory, Department of Agricultural Entomology, University of Agriculture, Faisalabad, Pakistan.

### *Brevipalpus shahbazii*, new species (Fig. 1)

#### Female

##### Dorsum

Body 230  $\mu\text{m}$  long excluding rostrum, 160  $\mu\text{m}$  wide; Rostrum reaching distal end of femur 1 (Fig. 1). Rostral shield pitted, with few striations, deeply notched with 1 median conical and 2 ancillary lobes on each side (Fig.1.D). Palpus 4 segmented, terminal segment with 1 eupathidium and 1 setae, II and III segments with 1 and 2 barbed setae each, respectively (Fig.1C).

Prodorsum with reticulations mediolaterally, fading away towards lateral margins, median area without reticulations. Prodorsal setae 3 pairs,  $v_2 = sc_1 = 8 \mu\text{m}$ , both smooth,  $sc_2$  slightly lanceolate serrate 13  $\mu\text{m}$ . Eyes 2 pairs, 1 pair on each side (Fig.1A).

Opisthosoma with irregular broken striations and a few reticulate elements mediolaterally, striations mediolaterally, fading away marginally. Dorsocentral setae 3 pairs, weakly serrate; dorsolateral setae 6 pairs, slightly lanceolate, serrate; Length of setae:  $c_1$  13,  $c_3$  5  $d_1$  9,  $d_3$  10,  $e_1$  10,  $e_3$  9,  $f_1$  8,  $h_1$  10,  $h_2$  8  $\mu\text{m}$ , all fall short of distances between their bases (Fig.1A).

##### Venter

Venter with a few striations at the bases of coxae II, irregular striations lateral to apodemes of coxae II. Irregular striations, anterior to coxae III,

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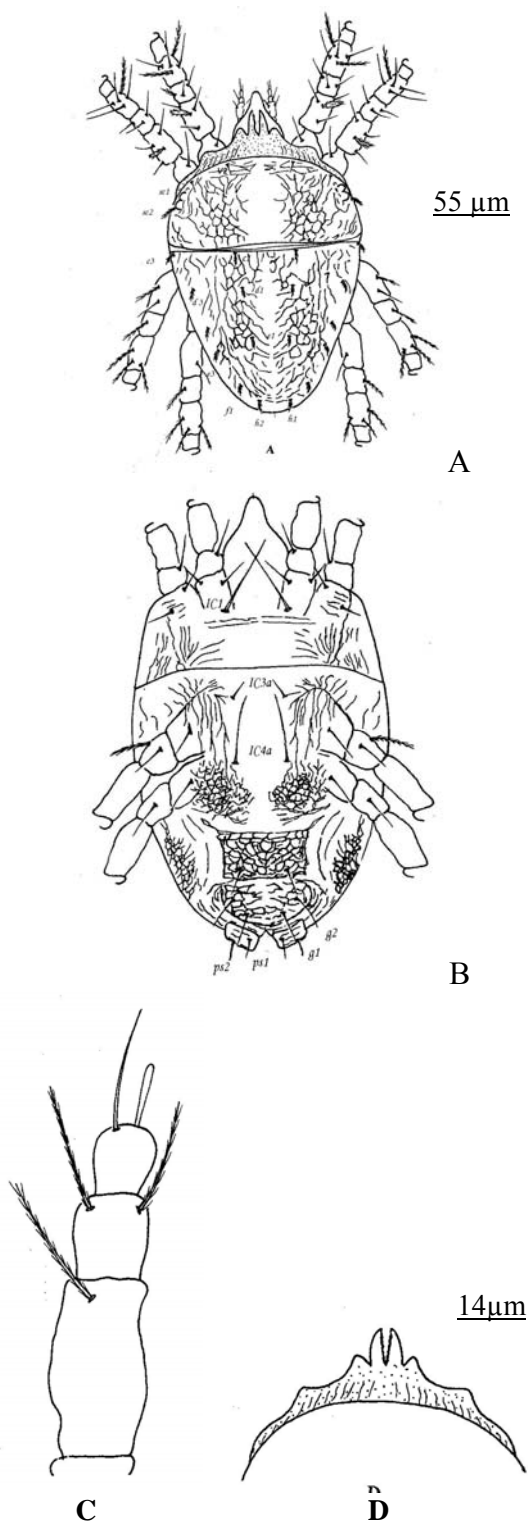


Fig. 1. *Brevipalpus shahbazii* n. sp. (♀)  
A, dorsal side; B, ventral side; C, palpus; D,  
rostral shield.

reticulations anterior and laterad to ventral shield, anterior reticulations do not meet medially. Intercostal setae smooth, Intercostal setae *IC4a* crossing the bases of the setae *IC3a*. Ventral shield entirely reticulated, aggenital setae smooth. Genital shield reticulations at the margins, fading medially, setae 2 pairs, both smooth. Anal shield striated, setae 2 pairs, smooth. Length of setae: *IC1a* 30, *IC3a* 8, *IC4a* (each pair) equal in length 30, *ag* 10, *g1* = *g2* 13, *ps1* 5, *ps2* 8 (Fig. 1.B).

#### Legs

Leg segments wrinkled; number of setae on legs as follows: coxae 2-2-1-1, trochanter 1-1-2-1, femora 4-4-2-1, genua 3-3-1-1, tibiae 5-5-3-3, tarsi 9-9-5-5, Dorsal setae of femora I and II broadly serrate, as well as width of the segment. Tarsi I and II each with 2 sensory pegs (Fig. 1.A).

#### Male

Not known.

#### Type series

Holotype female, Jaranwala, District Faisalabad, 12.10.2002 (Mansoor-ul-Hassan), on pomegranate (*Punica granatum* L.), four paratypes one female on Banana (*Musa paradisiaca* L.) and three female on pomegranate (*Punica granatum* L.), 03.07.2003, collected by Mansoor-ul-Hassan with the same locality as the holotype.

#### Remarks

This new species *B. shahbazii* can be separated from *B. ziaii* Chaudhri and Akbar 1985 on the basis of the following characters:

1. Palpus terminal segment with 2 setae and 1 eupathidium in *ziaii* whereas 1 seta and 1 eupathidium in *shahbazii*.
2. All the prodorsal setae lanceolate serrate in *ziaii* but *V2* and *Sc1* setae setiform, smooth seta *sc2* serrate in *shahbazii*.
3. Ventral shield without reticulations in *ziaii* but it is entirely reticulated in *shahbazii*.

*B. shahbazii* n. sp. can also be distinguished from *B. tarus* Gonzalez 1975 on the basis of the following characters:

1. Rostral shield reticulated with 4 ancillary

- lobes in *tarus* but pitted and striated with 2 ancillary lobes in *shahbazii*.
2. Prodorsum reticulated medially in *tarus* but smooth in *shahbazii*.
  3. Ornamentation of opisthosoma differs in both the species.

#### Etymology

This new species is named after one of the best friend of the senior author.

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