UDK 595.42 (497.16)

R a d m i l a PETANOVIĆ and J a n BOCZEK*

Three New Species of Eriophyid Mites

(ACARIDA: ERIOPHYOIDEA)

IZVOD -- U radu su opisane 3 nove vrste Eriophyidae (Acarida: Eriophyoidea): *Mesalox daphnei*, sa lišća *Daphne mezereum* L.. (Thymeliaceae), *Phyllocoptes lonicerae*, sa lišća *Lonicera caprifolium* L. (Caprifoliaceae) i *Vasates stachysi*, sa lišća *Stachys allopecuros* (L.) Benth. (Lamiaceae). Pored detaljnih opisa i crteža protoginih ženki, izmereni su i osnovni karakteri mužjaka i drugog juvenilnog stadijuma, dati odnosi sa biljkama domaćinima i diferencijelna diajagnoza u odnosu na srodne vrste. Nove vrste su nadjene na lokalitetima Zminičko jezero, Aluge-Đurđevića Tara i zapadna strana Lojanika.

ABSTRACT -- *Petanović, R.*, Faculty of Agriculture 11080 Zemun, Nemanjina 6, *Boczek,J.*, Department of Applied Entomology Agricultural University of Warsaw, Nowoursynowska 166, Poland. THE FAUNA OF DURMITOR, 4: Three New Species of Eriophyid Mites (Acarida: Eriophyoidea) from Durmitor Mountain., Yugoslavia, Crnogorska akademija nauka i umjetnosti, Posebna izdanja, knjiga 24, Odjeljenje prirodnih nauka, knjiga 15, Titograd, 1991.

Three new species of eriophyid mites: *Mesalox daphnei, Phyllocoptes lonicerae* and *Vasates stachysi* are described and illustrated. Their relation to host plants is given. The type material is deposited at the Department of Entomology, Belgrade University, Faculty of Agriculture, Belgrade-Zemun and at the Department of Applied Entomology, Agricultural University of Warsaw.

Acarida, Eriophyoidea, new species, Durmitor, Yugoslavia

1. **Mesalox daphnei** n. sp. (fig. 1 and 2)

F e m a l e: 208 μm (range of 10 specimens 180–208) long, 69 μm (56–69) wide, 64 μm thick fusiform, whitish in color. Rostrum 17 μm long, rostral seta 4 μm long; chelicerae 15 μm long, slightly bent. Dorsal, subtriangular shield 49 (47–49) μm long, 60 μm wide with 15 μm long lobe. Shield smooth. Dorsal tubercles on rear

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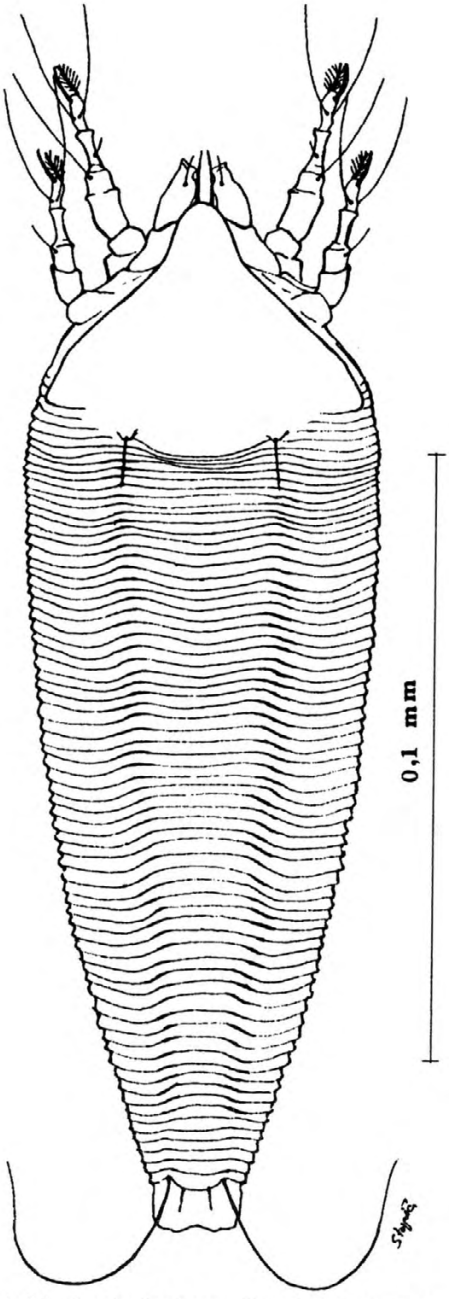

Fig. 1. *Mesalox daphnei* n. sp. (dorsal view of mite)

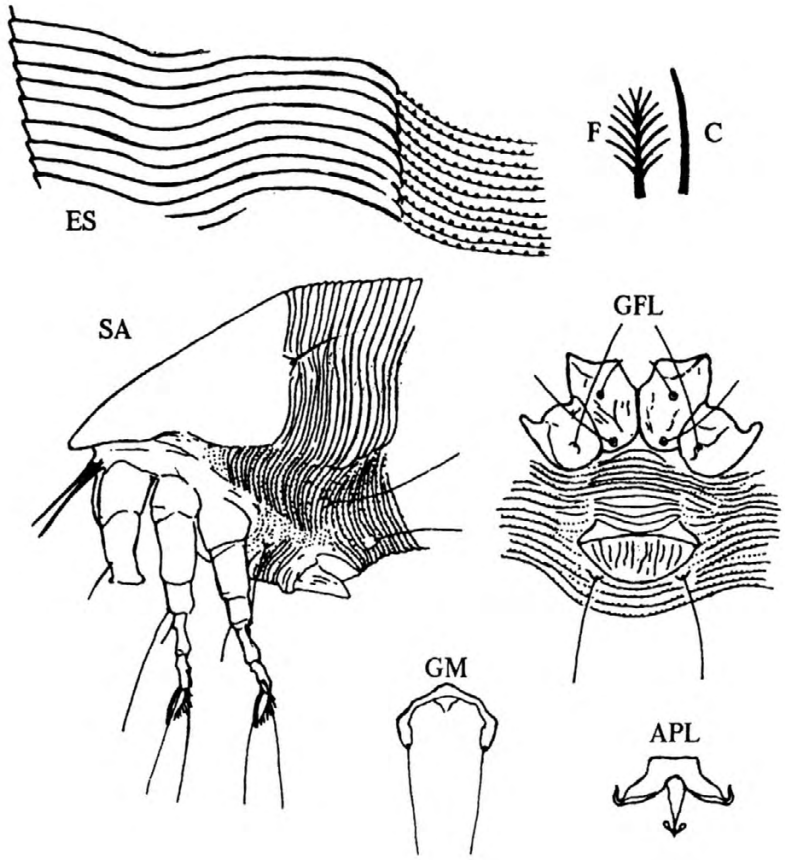

Fig. 2. *Mesalox daphnei* n. sp.

ES - lateral view of tergite-sternite region
SA - side view of anterior section of mite
GFL - external female genitalia
APL - internal female genitalia
GM - external male genitalia
C - claw
F - featherclaw

shield margin, 24 (23–27) μm apart, with dorsal setae 10 μm long, directed to the rear and diverging.. Foreleg 35 μm long, tibia 8 μm long with seta 6 μm long, tarsus 7 μm long, claw 7 μm long slightly knobbed, featherclaw 7 μm long, 7–rayed. Hindleg 31 μm long, tibia 7 μm long, tarsus 7 μm long, claw 8 μm long, knobbed slightly, featherclaw 6 μm long. Coxae with some broken lines, I forecoxal tubercles 13 μm apart, setae 7 μm long; II forecoxal tubercles 8 μm apart, setae 20 μm long. Hindcoxal tubercles 21 μm apart, setae 25 μm long; sternum forked, 10 μm long. Opisthosoma with 66 smooth tergites forming low, short, formed only of 10 proximal tergites central ridge; deep central longitudinal throgh and two lateral longitudinal ridges reaching 7th tergite from the rear.Sternites about 75, microtuberculate. 13 sternites between epigynium and coxae. Lateral setae 28 μm long, on sternite 17, I ventral tubercles 35 μm apart on sternite 32, I ventral setae 45 μm long, II ventral tubercles 22 μm apart, on sternite 52, second ventral setae 30 μm long; third ventral tubercles 27 μm apart, on sternite 6 from the rear; 3rd ventral setae 35 μm long. Last 6 rings with elongate tubercles. Accessory setae 3 μm long. Female genitalia 17 μm long, 24 μm wide, genital coverflap with 12–14 longitudinal striae, genital setae 20 μm long, 14 μm apart.

M a l e: 156 μm long, 51 μm wide; shield 40 μm long, dorsal tubercles 24 μm apart, dorsal setae 8 μm long; opisthosoma with 51 tergites; male genitalia 20 μm wide.

N y m p h II: 112 μm long, shield 36 μm long, dorsal tubercles 16 μm apart, dorsal setae 7 μm long; opisthosoma with about 61 rings; genital tubercles 8 μm apart, genital setae 7 μm long.

H o s t p l a n t: *Daphne mezereum* L. (Thymeliaceae).

Relation to host plant: causing pocket–like deformations of the distal parts of leaves.

T y p e m a t e r i a l:holotype female collected on July 13,1990. at Zminičko jezero, by Slobodan Jovanović. Paratypes, females (23) and males (2) bear the same date.

This species is close related to *Mesalox tuttlei* K. (Keifer, 1962) and can be distinguished by the number of tergites, thefeatherclaw rays, width of female genitalia, host plant, and the relation to it. In *M. tuttlei* opisthosoma with 52 tergites, featherclaw 4–rayed, female genitalia 12 wide, vagrant on *Parthenocissus quinquefolia* (Vitaceae). In the new species opisthosoma with 66 tergites, featherclaw 7– rayed, female genitalia 24 mm wide and it causes pocket–like deformations of distal parts of *Daphne mezereum* L. (Thymeliaceae).

2. **Phyllocoptes lonicerae** n. sp. (fig. 3 and 4)

F e m a l e: 165 (range of 10 pecimens 160–191) μm long, 66 (61–75) μm wide, 60 μm thick, fusiform, whitish in color. Rostrum 20 μm long, rostral seta 7 μm long, chelicerae 17 μm long, almost straight. Dorsal shield rhomboidal 45 (41–48) μm long, 56 μm wide with triangular, 12 μm long anteriorly rounded lobe with one indistinct admedian line on each side. Dorsal tubercles ahead of rear shield margin,

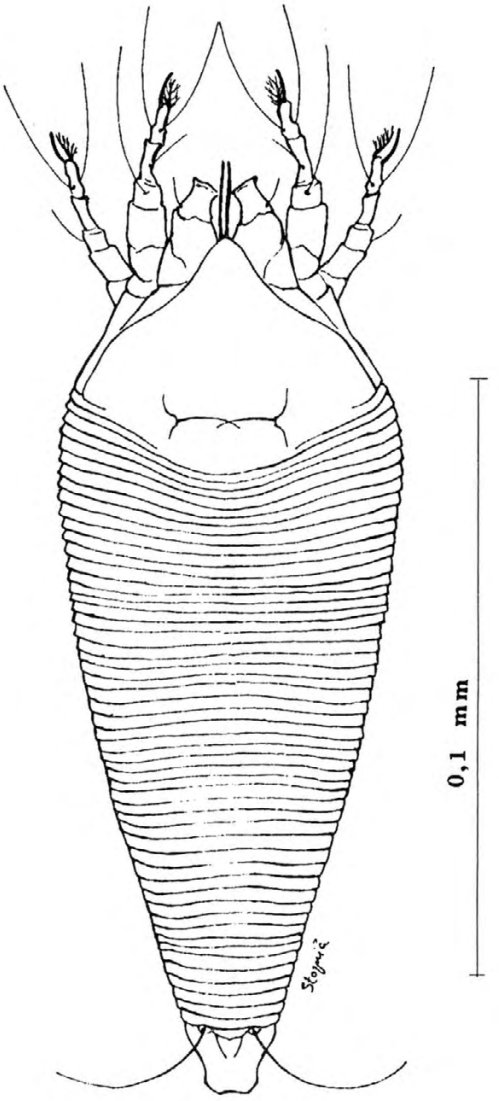

Fig. 3. *Phyllocoptes lonicerae* n. sp. (dorsal view of mite)

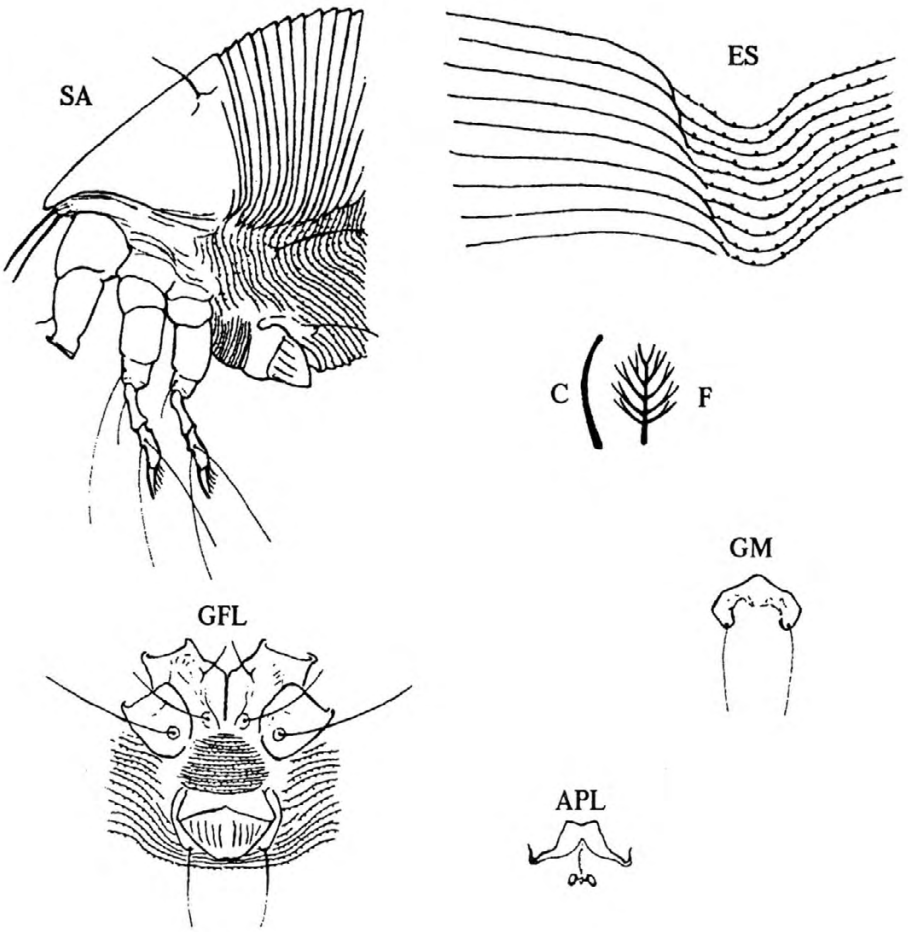

Fig. 4. *Phyllocoptes lonicerae* n. sp.

ES - lateral view of tergite-sternite regiond
SA - side view of anterior section of mite
GFL - external female genitalia
C - claw
APL - internale female genitalia
GM - external male genitalia
F - featherclaw

20 μm (14–20) μm apart, with dorsal seta 8 μm directed centrally. Foreleg 36 μm long, tibia 8 μm long, with seta 20 μm long, tarsus 7 μm long, claw 7 μm long slightly knobbed, feather law 7 μm long, 5–rayed. Hindleg 28 μm long, tibia 7 μm long, tarsus 6 μm long, claw 6 μm long,featherclaw 6 μm long. Coxae smooth; I forecoxal tubercles 13 μm apart, second forecoxal tubercles 8 μm apart, setae 18 μm long. Hindcoxal tubercles 22 μm apart, setae 28 μm long; sternum 7 μm long. Opisthosoma with 51 tergites (50–64) and about 64 microtuberculate sternites. Microtubercles very minute. Lateral setae 18 μm long, 44 μm apart, on sternite 10; I ventral tubercles 28 μm apart on sternite 23; I ventral setae 25 μm long; second ventral tubercles 13 μm apart, on sternite 37, second ventral setae 20 μm long; third ventral tubercles 20 μm apart, on sternite 57; third ventral setae 20 μm long. Last 7 rings with elongate tubercles. Accessory setae 4 μm long. Female genitalia 15 μm long, 21 μm wide, genital coverflap with 10 striae, genital setae 16 μm long, 13 μm apart.

M a l e: 133 μm long; shield 41 μm long, dorsal tubercles 15 μm apart, dorsal setae 11 μm long. Opisthosoma with 46 tergites, male genitalia 17 μm wide

N y m p h II: 128 μm long, shield 37 μm long, dorsal tubercles 12 μm apart dorsal setae 7 μm long, opisthosma with about 50 rings, genital tubercles 8 μm apart between 7th and 9th sternite, genital setae 5 μm long.

H o s t p l a n t: *Lonicera caprifolium* L. (Caprifoliaceae).

Relation to the host plant : causing edge–rolling of the leaves.

T y p e m a t e r i a l: holotype female collected in Aluge–Đurđevića Tara, on July 15, 1990., paratypes (23): females 20 and males (3), bearing the same date.

This species is close related to *Phyllocoptes xylostei* (Can.) (Nalepa, 1910, Farkas, 1965) and can be distinguished by number and appearence of tergite and number of featherclaw rays. In *Ph. xylostei* opisthosoma with 70 microtuberculate rings, featherclaw 6–rayed. In the new specie opisthosoma with smooth 51 tergites and featherclaw 5–rayed.

3. **Vasates stachysi** n. sp. (fig. 5 and 6)

F e m a l e: 168 μm long (range of 10 specimens 158–180) μm long, 67 (60–69) μm wide, 57 μm thick, fusiform. Rostrum 18 μm long, rostral seta 3 μm long; chelicera 16 μm long. Dorsal shield 36 (36–41) μm long 47 μm wide, smooth, with very shorth 4 μm long rounded lobe.Dorsal tubercles on rear shield margin, 32 μm apart (28–32), dorsal seta 31 μm long, directed to the rear and diverging. Foreleg 37 μm long, tibia 8 μm long with seta 5 μm long, tarsus 6 μm long, claw 9 μm long, slightly knobbed, featherclaw 6 μm long, 4–rayed. Hindleg 30 μm long, tibia 7 μm long, tarsus 7 μm long, claw 8 μm long, featherclaw 7 μm long. Coxae smooth, I forecoxal tubercles 10 μm apart, setae 12 μm long; second forecoxal tubercles 8 μm apart, setae 18 μm long, hindcoxal tubercles 2o μm apart, setae 33 μm long; sternum 7 μm long, indistinct. Opisthosoma with 33 (32–35) tergites with indistinct microtubercles and about 58 microtuberculate sternites. Lateral setae 48 μm apart, lateral setae 15 μm long, on sternite 9; I ventral tubercles 35 μm apart on sternite 22, I ventral setae 55 μm long; II ventral tubercles 19 μm apart, on sternite 35, second

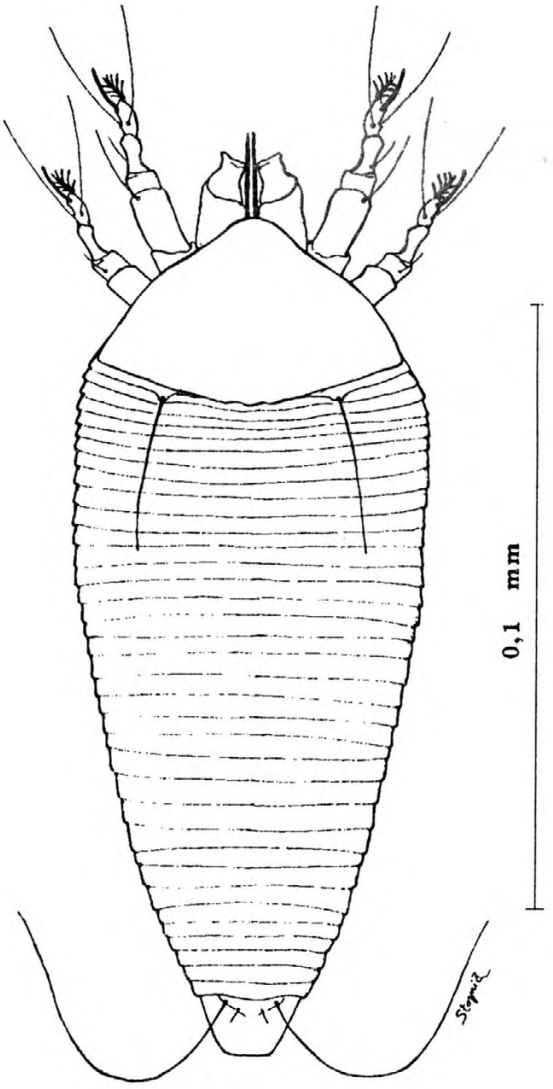

Fig. 5. *Vasates stachysi* n. sp. (dorsal view of mite)

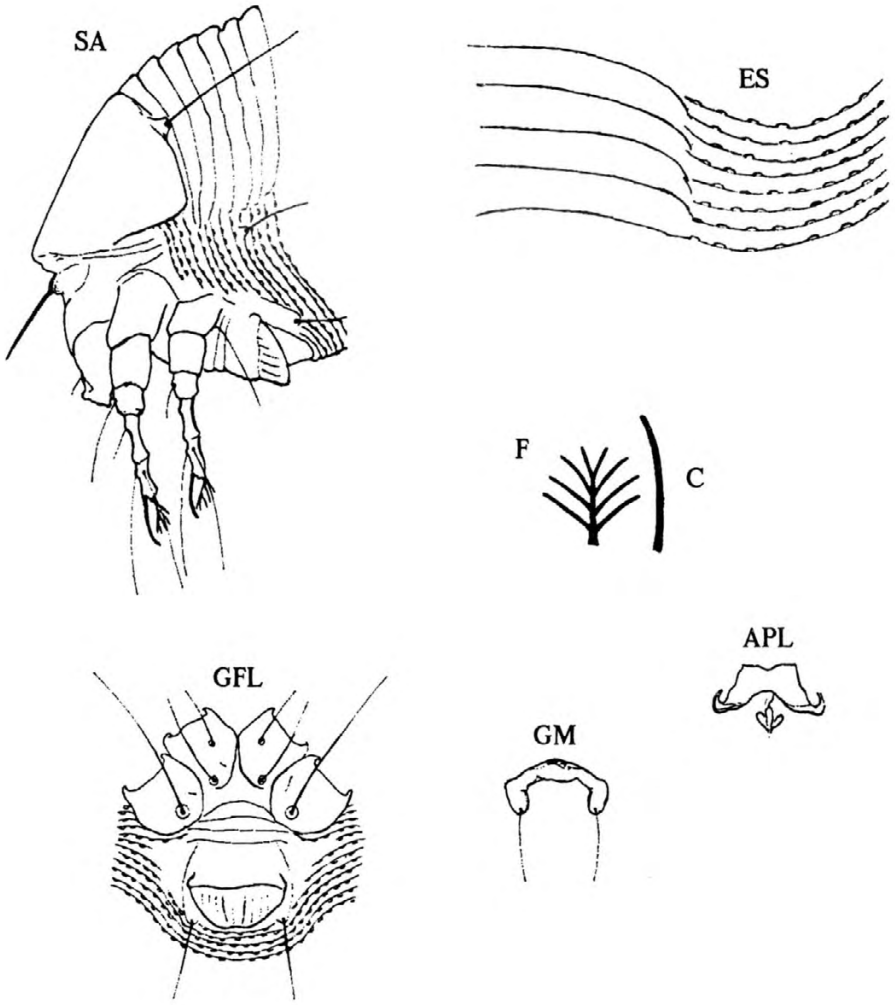

Fig. 6. *Vasates stachysi* n. sp.

ES - lateral view of tergite-sternite region or shield
SA - side view of anterior section of mite
GFL - external female genitalia
C - claw
APL - internal female genitalia
GM - male genitalia
F - featherclaw

ventral setae 11 μm long; third ventral tubercles 19 μm apart, on sternite 53, third ventral setae 22 μm long. Last 3 rings with elongate tubercles. Accessory setae 3 μm long. Female genitalia 14 μm long, 21 μm wide, genital coverflap with 10 striae, genital setae 15 μm long, 17 μm apart.

M a l e: 146 μm long, 60 μm wide; shield 37 μm long, dorsal tubercles 29 μm apart, dorsal setae 27 μm long; opisthosoma with 30 tergites and about 48 sternites; male genitalia 21 μm wide.

N y m p h II: 130 μm long; shield 39 μm long, dorsal tubercles 28 μm apart, dorsal setae 27 μm long; opisthosoma with about 40 rings; genital tubercles 15 μm apart, between 9th and 10th sternite, genital setae 7 μm long.

H o s t p l a n t: *Stachys allopecuros* (L.) (Lamiaceae)

Relation to the host plant : free living on the undersurface of the leaves of the host plant.

T y p e m a t e r i a l: holotype female collected on July 17, 1990. in Zapadni Lojanik, by S. Jovanović. Paratypes 26: females (25) and male (1) bearing the same date.

This species is close related to *Vasates scutellariae* (Can. et Mass.) (Roivainen, 1951; Farkas, 1965) and can be distinguished by length of body, length of dorsal, lateral and second ventral setae and host plant. In V. scutellariae female 200–210 μm long, dorsal setae 45–57 μm long, lateral setae 25 μm long and second ventral setae 20–22 μm long. It causes rolling and shrivelling of Scutellaria hastifolla (Lamiaceae) leaves. In the new species female 158 – 180 μm long, dorsal setae 31 μm long, lateral setae 15 μm long and second ventrals 11 μm long. It is vagrant on *Stachys allopecuros* (Lamiaceae) leaves.

A c k n o w l e d g e m e n t s

We would like to acknowledge the assistance of Mr Bojan Stojnić, university assistant, Department of Entomology, Faculty of Agriculture, University of Belgrade for drawing the mites, and to Mr Slobodan Jovanović, university assistant, Institute of Botany and Botanical garden, University of Belgrade for identification of plants.

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(Primljeno u redakciji: 17. 02. 1991)