

**A NEW SPECIES OF THE CHIGGER MITE GENUS *MULTISETOSA*
HSU ET WEN, 1963 (ACARIFORMES, TROMBICULIDAE:
LEEUVENHOEKIINAE) FROM KYRGHYZSTAN.**

**НОВЫЙ ВИД КЛЕЩЕЙ-КРАСНОТЕЛОК РОДА *MULTISETOSA*
HSU ET WEN, 1963 (ACARIFORMES, TROMBICULIDAE:
LEEUVENHOEKIINAE) ИЗ КЫРГЫЗСТАНА.**

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КЛЮЧЕВЫЕ СЛОВА: *Multisetosa*, таксономия.

ABSTRACT

A description is presented of a new species of the chigger mite genus *Multisetosa*, *M. horti* sp.n., found on grey hamster *Cricetulus migratorius* in Kirghizia (Osh Area, Alai). The new species differs from the related species *Multisetosa pinguis* Schluger et Amanguliev, 1972 by the size of scutum, longer specialized setae on the genu and the tibia of the leg III. The type material is deposited in the Zoological Museum of Moscow State University.

РЕЗЮМЕ

Приводится описание нового вида клещей-краснотелок *Multisetosa horti* sp.n., обнаруженного на серых хомячках *Cricetulus migratorius* в Кыргызстане (Ошская область, Алай). Описываемый в настоящей работе вид отличается от близкого вида *Multisetosa pinguis* Schluger et Amanguliev, 1972 размера-

ми протеросомального щита, меньшей длиной и опушением дорсальных и вентральных щетинок тела, более длинными специализированными щетинками на колене и голени ног III. Типовой материал хранится в Зоологическом музее Московского государственного университета.

Members of the genus *Multisetosa* Hsu et Wen, 1963 occur mostly in mountain and sand deserts where their hosts are mainly rodents and, less frequently, reptiles. According to the most recent revision [Kudryashova, 1990], 11 species of this genus were known from CIS (Stavropol Territory, Caucasus, Middle Asia, Trans-Baikal Region), Mongolia, China, and Iran. Later on, one more species was described from the montane part of Daghestan [Stekol'nikov, 1992]. While examining the chigger mites from Kyrghyzstan collected by S.N.Rybin, I found several specimens of a new *Multisetosa* species which proved to be identical to *M.horti* from E.G.Schluger's collections deposited in the Zoological Museum of Moscow State University. This species was distinguished by E.G.Schluger, but she did not give any description of it; for this reason, I retain the species name she used. The type material is deposited in the Zoological Museum of Moscow State University. All measurements are given in micrometers (microns).

Multisetosa horti Kartzev, sp.n.

Fig. 1,2.

DIAGNOSIS: SIF=7B-B-3-1-1-1-1-0-0-0-0; fPp=B/B/BBB; fSp=6-6-6; fCx=2-1-1; fSt=0-2; S+T; Ch=D/V; PT', PT'', ST=N; pST=B; S₂>S₁; fSc:AM>AL>=PL (in some specimens, AM>PL>=AL); PPL>=AL (or AL>=PPL); DS=163-205; VS=91-111; NDV=254-307; Ip=904-974.

New species of *Multisetosa*



Fig. 1. Idiosome of holotype of *Multisetosa borti*, sp.n.:
a - dorsal aspect of idiosoma;
b - ventral aspect of idiosoma;

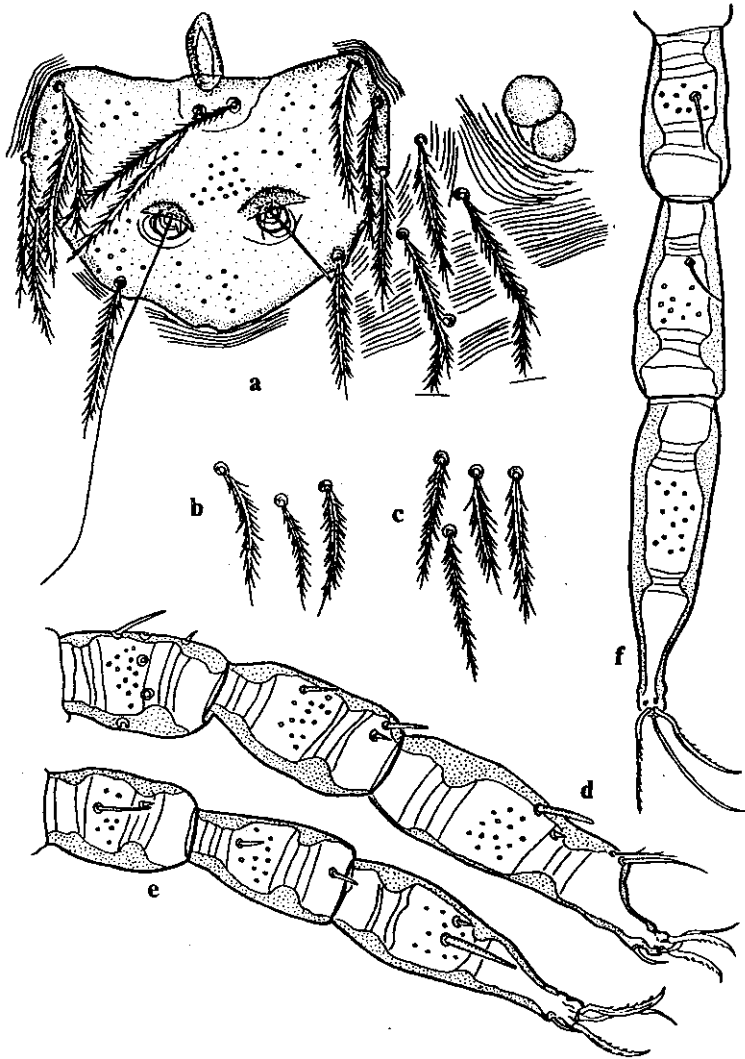


Fig. 2. Holotype of *Multisetosa borti*, sp.n.:
a - scutum and eyes; b - ventral setae; c - dorsal setae; d, e, f - specialized setae
on legs I - III.

New species of *Multisetosa*

Standard measurements

	AW	PW	SB	ASB	PSB	SD	AP	AA	AM	AL	PL	PPL	S
Holotype	71	76	25	39	25	64	11	8	53	38	36	34-38	90
Paratypes (n=12)													
average	68	80	26	37	27	64	11	8	50	38	38	36	—
min	64	77	24	35	25	62	10	7	42	34	34	31	84
max	73	87	28	39	31	66	11	10	53	42	42	39	104

	NL	NW	D	Hv	V	pa	pm	pp	Ip
Holotype	21	7	28-42	36-39	28-39	319	302	325	946
Paratypes (n=12)									
average	20	8	36	38	34	318	294	327	939
min	18	7	28	35	25	302	280	321	904
max	22	10	43	42	41	333	305	336	974

DESCRIPTION

Mites of middle size ($I_p = 909 - 974$). Engorged larvae have oval body. Length of the idiosome: 286 - 742, depending on the degree of engorgement; width: 254 - 544. Scutum cup-like, its posterior margin slightly sharpened, anterior margin undulate, punctation rather fine. The anterior medial projection (nasus) of the scutum lancet-like. The scutum bears a pair of nude flagelliform sensillae and several pairs of barbate setae (2AM, 2AL, 2PL, PPL). The latter are present both on the scutum itself and between the scutum and the eyes. Shape of the scutum varies, as well as the number of PPL it bears (3 to 6) (Fig. 3). Total number of PPL 8 - 13. AM with rather short and thin minute barbs, whereas AL, PL, and PPL bear stronger and longer ones. Eyes 2 + 2. Cheliceral blade strong (length 42 - 48), with rows of dorsal and ventral denticles on its distal edge. Galeal seta barbate, as well as all setae on the palps. The claw (length 25 -

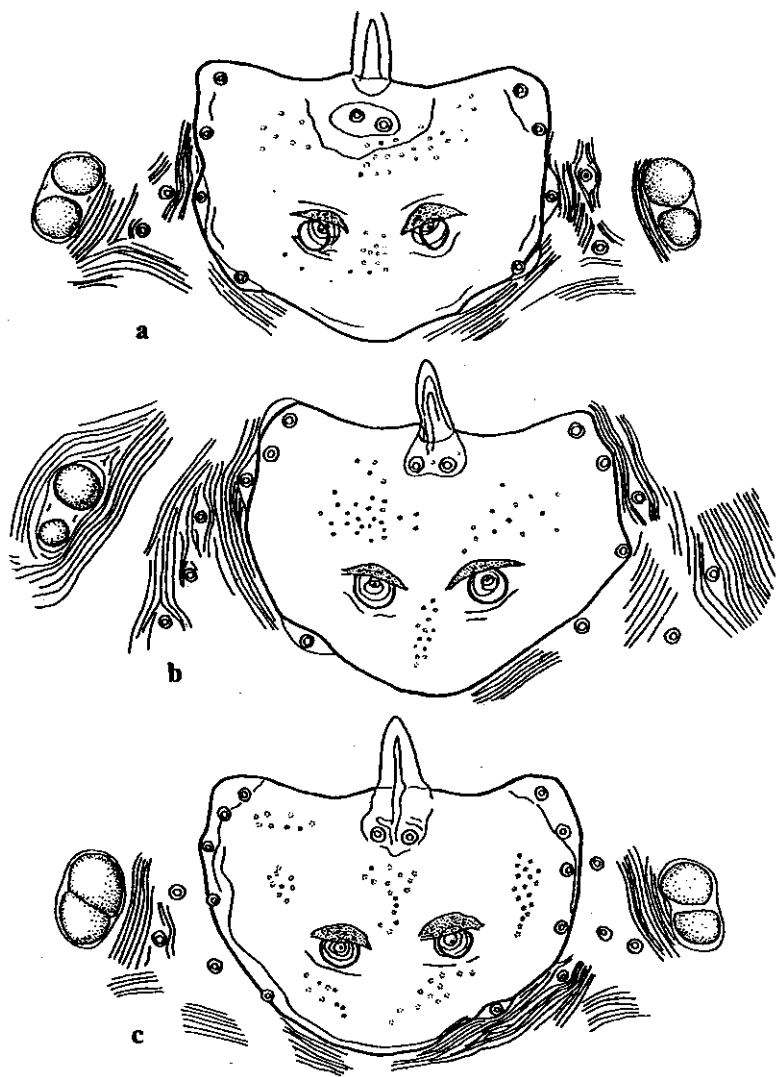


Fig. 3. Paratypes of *Multisetosa borti*, sp.n.:
a - c variability of the form of the scutum.

New species of *Multisetosa*

28) on the tibia of the palp is divided into three teeth (two dorsal ones are smaller than the larger ventral tooth). Dorsal setae (shorter in the middle and longer at the sides) bearing rather strong and relatively long barbs are situated in the anterior half of the body and form indistinct, partially overlapping rows. $DS = 163 - 205$. The number of intercoxal Hv setae varies from 14 - 22. Ventral setae are somewhat shorter than dorsal ones and also vary in size (preanal setae shorter than postanal ones). $VS = 91 - 111$.

Specialized setae on the legs:

I: genuala and microgenuala; 2 tibiala and microtibiala; S_1 (length 14 - 17) and f_1 (anterior to S_1); (PT' , ST) = N; pST = B.

II: genuala and microgenuala; 2 tibiala and microtibiala; S_2 (length 17 - 21); f_2 (on the same level as, or slightly anterior to, S_2); PT'' = N.

III: genuala; tibiala. Length of tarsus III: 76 - 81; width: 20. Tarsal claws of all legs with onychotriches (Ot) which are only discernible at the magnification 60X or more.

Number of barbate setae on the legs (in the holotype):

Legs	Trochanter	Femur	Genu	Tibia	Tarsus
I	1	6	4;5	9	30;31
II	1	5	4	6	17
III	1	4	4	6	15

MATERIAL

Holotype: larva No Tdt-5129-3-778-2, from a male grey hamster (*Cricetulus migratorius*). Kyrgyzstan, Alai, Kashkasu, sea-buckthorn, 25.07.1975, collected by S.N.Rybin. Paratypes: 12 larvae, same data as for the holotype; 4 specimens with same data as the holotype, but sampled on 4.07.1962 (preparations from E.G.Schluger's collection).

RELATED SPECIES

The new species is close to *Multisetosa pinguis* Schluger et Amanguliev, 1972. The first description of *M. pinguis* gives only some of the holotype measurements [Schluger, Amanguliev, 1972]. Below, all necessary measurements are presented of the holotype of *M. pinguis*, as well as of two additional larvae which are present in the same preparation.

	AW	PW	SB	ASB	PSB	SD	AP	AA	AM	AL	PL	PPL	S
Holotype	59	70	22	36	25	61	8	7	48	35	42	36-42	92
Paratype	59	70	21	34	22	56	8	8	45	36	42	42-48	92
Paratype	59	70	22	36	22	58	18	8	48	35	42	42-48	92

	NL	NW	D	Hv	V	pa	pm	pp	Ip
Holotype	17	4	36-56	45-48	31-49	307	286	342	935
Paratype	20	7	39-56	45-48	32-50	309	286	328	923
Paratype	18	7	39-56	42-48	34-50	308	290	329	927

The holotype of *Multisetosa pinguis* (preparation NK-1, Turkmenia, Central Karakums, Kirpili, ex *Rhombomys opimus*, 4.05.1964) is deposited in the Zoological Museum of Moscow State University.

The species described here differs from *Multisetosa pinguis* in having wider scutum (AW = 64-73, PW = 77-87 vs. AW = 59, PW = 70); shorter dorsal and ventral setae (D = 28-43 vs. 36-56, V = 25-41 vs. 31-50); less strong barbs on AL, PL, and PPL, as well as on the setae of the idiosome; longer gp and tp, their length being 1.4 - 1.8 times less than the width of the respective segment vs. 2.5 - 3 times less than its maximum width.

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New species of *Multisetosa*

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