

**A NEW SPECIES OF THE MITE GENUS *PSEUDOBONZIA* SMILEY, 1975
(ACARINA: PROSTIGMATA: CUNAXIDAE) FROM UKRAINE**

**НОВЫЙ ВИД КЛЕЩЕЙ РОДА *PSEUDOBONZIA* SMILEY, 1975 (ACARINA:
PROSTIGMATA: CUNAXIDAE) ИЗ УКРАИНЫ**

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Ключевые слова: клещи, Prostigmata, Cunaxidae, *Pseudobonzia*, новый вид, Украина

ABSTRACT

Female, male, and tritonymph of the mite *Pseudobonzia kuznetsovi* sp. n. are described from Ukraine. The genus *Pseudobonzia* is recorded for the first time for Ukraine.

РЕЗЮМЕ

Приводится описание самки, самца и тритонимфы клеща *Pseudobonzia kuznetsovi* sp. n из Украины. Род *Pseudobonzia* впервые приводится для фауны Украины.

The genus *Pseudobonzia* Smiley, 1975 is worldwide in distribution and includes 22 species [Den Heyer, 1977; Smiley, 1992; Corpuz-Raros, Garcia, 1996; Fuangarworn, Lekprayoon, 2004]. Mites of this genus inhabit soil, litter, plants, mushrooms, and decomposing organic materials where they are preying on microarthropods [Heryford, 1965]. The genus *Pseudobonzia* was proposed by Smiley [1975] for the single species *Cunaxa reticulata* Heryford, 1965. Later, Den Heyer [1977] described six new species of this genus from the Ethiopian region and provided an emended generic diagnosis. In this paper I describe a new species, *Pseudobonzia kuznetsovi* sp.n. from Ukraine. It is the first record of the genus *Pseudobonzia* from this country.

In the description, the terminology follows Den Heyer [1981], the nomenclature of dorsal setae follows Kethley [1990]. All measurements are given in micrometers (μm).

***Pseudobonzia kuznetsovi* sp. n.**

Figs 1–14.

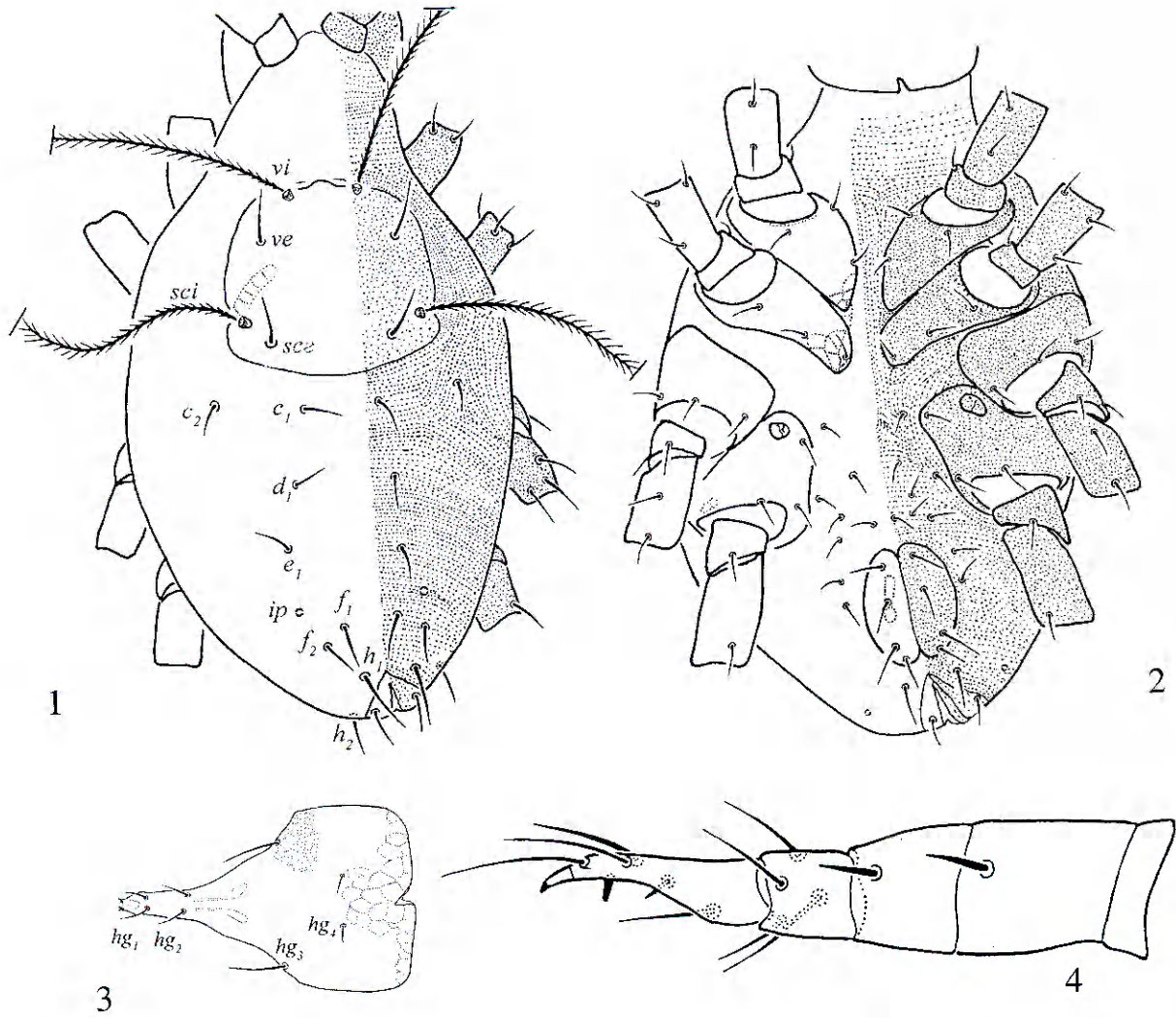
Female (Figs. 1–8). Idiosoma 365 long (390–397 in 14 paratypes); width 245 (255–288). Idio-

somal dorsum (Fig. 1). Propodosomal plate weakly sclerotized, with randomly arranged papillae. Two pairs of subequal setose trichobotria present. Setae *ve* slightly longer than *sce* (Table); distance *ve-ve* longer or subequal to *sce-sce*. Hysterosoma without plate, with 8 pairs of simple setae. Length of hysterosomal setae increasing toward anal region, setae h_1 longest on dorsum. Dorsal integument with papillae-bearing striations.

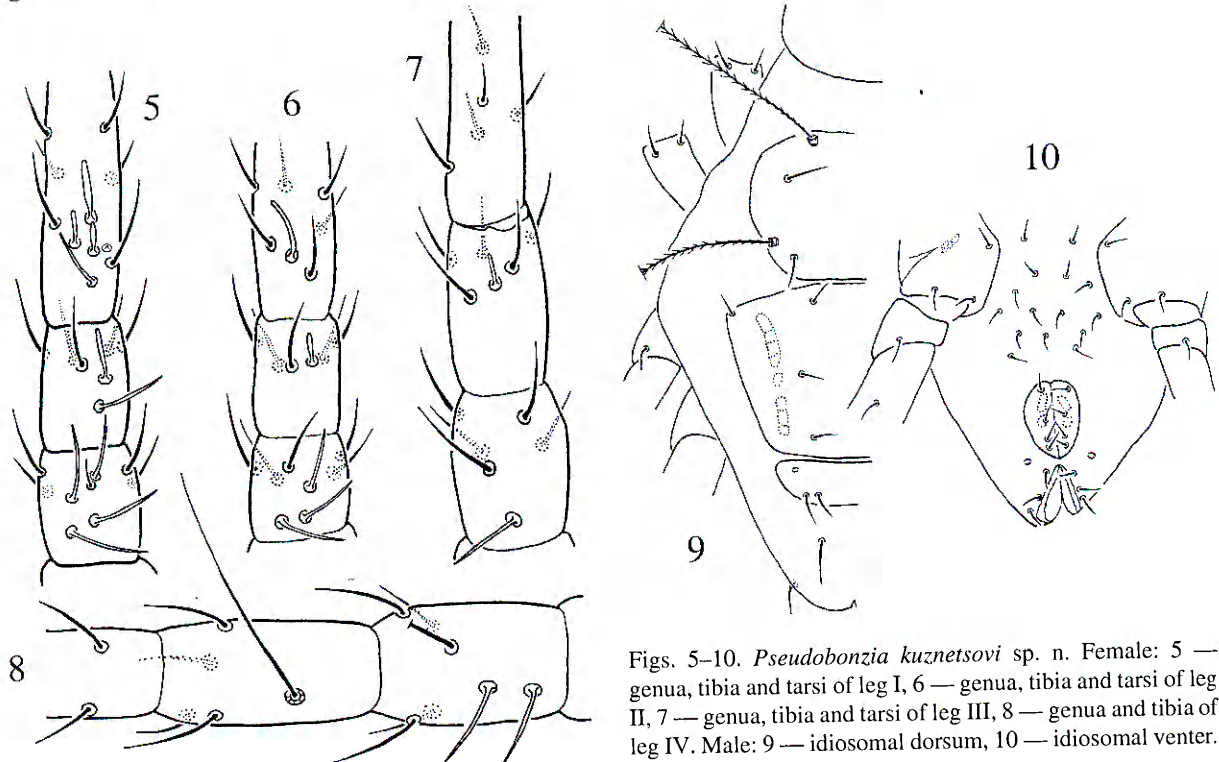
Idiosomal venter (Fig. 2). Coxae distinct. Coxae I, II, and IV with subcuticular ridges. Genital valves with 4 pairs of genital setae (*g*); g_3 longest among genital setae. Setae g_1 , g_2 , and g_4 subequal. Distances between g_1-g_2 and g_2-g_3 about 3 times longer than g_3-g_4 . Genital acetabules of different sizes; proximal disks bigger than distal. Ventral hysterosoma with 8 pairs of simple setae situated between coxae II and distal part of body, excluding genital and anal region. Unpaired seta anterior to genital valves present. Anal region with 2 pairs of anal and 1 pair of para-anal setae.

Gnathosoma (Figs. 3–4). Hypognathum (its length/width ratio 1:1.5) distinctly sclerotized, with ventral subcuticular ridges and covered by numerous papillae (Fig. 3). Setae hg_4 shortest gnathosomal setae, hg_3 longest gnathosomal setae. Chelicerae with one seta. Tibiotarsus with distinct tubercle, terminating with claw. Chaetotaxy of palps as follows (Fig. 4): trochanter 0; basifemur with 1 stout spine-like seta; telofemur with 1 stout spine-like seta; genu with 4 simple setae; tibiotarsus with 4 simple setae and 1 stout spine-like seta.

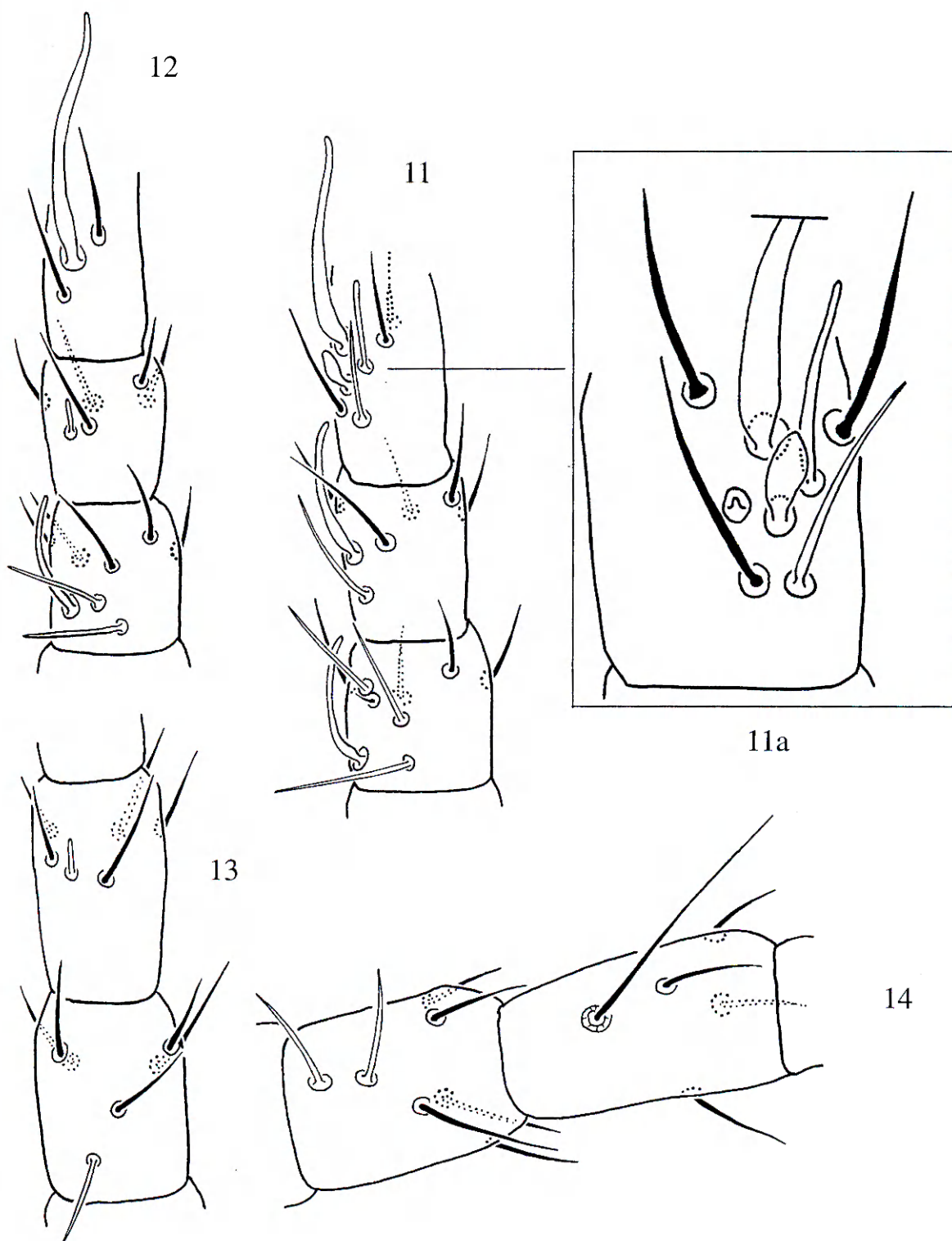
Legs (Figs. 5–8). Surface of all legs with papillae. Leg I–IV setation: coxae 3–3–3–3 *sts*; trochanters 1–1–2–1 *sts*; femora 5/5–6/5–5/4–2/3 *sts*; genua 4 *asl*, 5 *sts*–3 *asl*, 5 *sts*–1 *asl*, 5 *sts*–2 *asl*,



Figs. 1-4. *Pseudobonzia kuznetsovi* sp. n., female: 1 — idiosomal dorsum, 2 — idiosomal venter, 3 — hypognathum, 4 — palp.



Figs. 5-10. *Pseudobonzia kuznetsovi* sp. n. Female: 5 — genua, tibia and tarsi of leg I, 6 — genua, tibia and tarsi of leg II, 7 — genua, tibia and tarsi of leg III, 8 — genua and tibia of leg IV. Male: 9 — idiosomal dorsum, 10 — idiosomal venter.



Figs. 11–14. *Pseudobozia kuznetsovi* sp. n., male: 11 — genua, tibia and tarsi of leg I, 11 a — complex of solenidia on tarsi I, 12 — genua, tibia and tarsi of leg II, 13 — genua and tibia of leg III, 14 — genua and tibia of leg IV.

5 *sts*; tibia 1 *asl*, 1 *bsl*, 5 *sts*–1 *bsl*, 5 *sts*–1 *bsl*, 5 *sts*–1 *T*, 4 *sts*; tarsi 3 *bsl*, 1 *pe*, 1 *asl*, 2 *tsl*, 20 *sts*–1 *bsl*, 1 *tsl*, 21 *sts*–1 *tsl*, 17 *sts*–17 *sts*.

Male (3 paratypes, Figs. 9–14). Idiosoma 285–310 long, 208–215 wide. Dorsum with 3 weakly sclerotized plates (Fig. 9). First hystero-

somal plate trapezoid with 4 pairs of setae, subequal in length. Distance d_1 – d_1 longer than c_1 – c_1 or e_1 – e_1 . Second hysterosomal plate smaller and more weakly sclerotized than first plate, bearing 2 pairs of setae f_1 and f_2 subequal in length, and pair of cupules *ip*. Venter (Fig. 10) as in female but with

Table
Measurements of *Pseudobonzia kuznetsovi* sp. n.
Таблица
Промеры *Pseudobonzia kuznetsovi* sp. n.

Length	Female, holotype (range)	Tritonymph, paratype	Male
Palp	148 (140–157)	125	–
Chelicerae (length without chela)	154 (154–176)	129	–
Leg I ¹	250 (240–257)	–	–
Leg II	243 (227–243)	–	–
Leg III	270 (259–275)	–	–
Leg IV	292 (292–297)	–	–
ve	29 (29–32)	23	20
sce	22 (25–28)	17	15
c ₁	15 (13–17)	12	11
c ₂	15 (13–17)	11	11
d ₁	16 (14–17)	12	11
e ₁	17 (16–18)	12	12
f ₁	22 (19–23)	19	15
f ₂	19 (17–19)	17	15
h ₁	30 (29–34)	27	22
h ₂	–	–	14
hg ₁	18 (18–19)	–	13
hg ₂	16 (16–17)	–	13
hg ₃	(30–35)	–	24
hg ₄	12 (11–12)	–	8
g ₁	17 (13–18)	–	10
g ₂	17 (14–17)	–	10
g ₃	26 (21–26)	–	12
g ₄	16 (16–18)	–	11
ve–ve	78 (73–78)	68	59
sce–sce	67 (66–74)	61	43
ve–sce	–	50	54
g ₂ –g ₃	24 (24–26)	–	–
g ₃ –g ₄	9 (8–9)	–	–
c ₁ –c ₁	–	–	34
d ₁ –d ₁	–	–	44
e ₁ –e ₁	–	–	33

¹ measured from base of trochanter to apex of tarsus, excluding ambulacrum

7 or 6 pairs of setae between coxae II and distal part of body, excluding genital and anal region. Unpaired seta anterior to genital valves present. Genital valves smaller than in female. Gnathosoma as in female.

Legs (Figs. 11–14). Legs as in female except for chaetotaxy of genua I–II: 1 *bsl*, 3 *asl*, 5 *sts*–1 *bsl*, 2 *asl* 5 *sts*; and tarsi I–IV: 3 *bsl*, 1 *pe*, 1 *asl*, 2 *tsl*, 21 *sts*–1 *bsl*, 1 *tsl*, 20 *sts*–1 *tsl*, 19 *sts*–20 *sts*.

Tritonymph (1 paratype). Gnathosoma and dorsum as in female but more weakly sclerotized. Setation of idiosomal venter as in male. Setation of femora I–IV: 5/5–6/5–4/4–0/3 *sts*; genua II: 2 *asl*, 5 *sts*; tarsi I–IV: 3 *bsl*, 1 *pe*, 1 *asl*, 2 *tsl*, 16 *sts*–1 *bsl*,

1 *tsl*, 16 *sts*–1 *tsl*, 16 *sts*–14 *sts*. Setation of other podomeres as in female.

Deutonymph, protonymph, and larva: unknown.

Differential diagnosis. The new species is similar to *Pseudobonzia snowi* (Baker et Hoffmann, 1948) by the shape of the idiosoma and the structure of palps. These species mainly differ from each other by the leg setation (characters of *P. snowi* are in parenthesis). In *P. kuznetsovi* sp. n., basifemur II bears 6 setae (5), genu I with 4 solenidia (3), genu II with 3 solenidia (2), genu IV with 2 solenidia (1), tibia I with 2 solenidia (1), and tarsus I with 4 solenidia (3).

Type material. Female holotype (slide #C-2) and 2 female paratypes, Ukraine: Nikolaev Dist., Pervomaiskiy Reg., in rotten log of *Pinus* sp., 20 July 2002, coll. S.F. Uzhevskaya; 12 female paratypes, Kherson Dist., nest of termites in pine forest, 28 June 2002, coll. L. Tur; 2 female paratypes, same locality, 14 April 2002, coll. L. Tur; 2 female paratypes, same locality, 28 August 2002, coll. L. Tur; 4 female paratypes, Poltava Dist., in rotten log of *Acer* sp., 13 August 2001, coll. V.E. Sclyar; 3 male and 1 tritonymph paratypes, Crimea, vicinity of Ay-Danil, in rotten log of *Fagus orientalis*, 22 July 2001, coll. A.A. Khaustov; 8 female paratypes, same locality, 13 October 2002, coll. A.A. Khaustov; 1 female paratype, Crimea, vicinity of Gurzuf, beech forest, 13 October 2002, coll. A.A. Khaustov. Holotype and paratypes are deposited in the collection of the Department of Agroecology, Nikita Botanical Gardens — National Scientific Center, Yalta, Crimea, Ukraine.

Etymology. This species is named in honor of the well known acarologist, Prof. N. N. Kuznetsov (Nikita Botanical Gardens — National Scientific Center, Ukraine).

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