

## A NEW SPECIES OF THE GENUS *NEOSITEROPTES* (ACARI: HETEROSTIGMATA: PYGMEPHORIDAE) FROM CRIMEA

A. A. Khaustov

Nikita Botanical Gardens — National Scientific Center, Yalta, Crimea 98648, Ukraine; e-mail: alkhaustov@mail.ru

ABSTRACT: A new species *Neositeroptes euxinus* sp. n. collected in the forest litter of the “Cape Martyan” Nature Reserve, Crimea, Ukraine is described.

KEY WORDS: *Neositeroptes*, Pygmephoridae, new species, Crimea

### INTRODUCTION

Livshits, Mitrofanov, and Sharonov (1986) in their preliminary revision of the family Siteroptidae created the genus *Neositeroptes* with the type species *Siteroptes crossi* Mahunka, 1969 and placed about 30 species in this genus. During study of heterostigmatic mites of the “Cape Martyan” Reserve (Crimea, Ukraine) a new remarkable species belonging to this genus was found in the forest litter. The purpose of this paper is to describe the new species, *N. euxinus* sp. n. from Crimea.

### MATERIALS AND METHODS

Mites were collected from forest litter using Berlese funnels without heating and mounted on microscopic slides in Berlese medium. In the description, the terminology follows Lindquist (1986). All measurements are given in micrometers ( $\mu\text{m}$ ) for holotype and 5 paratypes (in parenthesis).

### SYSTEMATICS

**Family Pygmephoridae Cross, 1965  
(=Siteroptidae Mahunka, 1970)**

**Genus *Neositeroptes* Livshits, Mitrofanov,  
Sharonov, 1986**

***Neositeroptes euxinus* Khaustov sp. n.**

Figs. 1–6

**Description. Female.** Idiosomal length: 253 (230–255), maximum width 140 (133–140).

Gnathosoma (Figs. 1–2). Two pairs of dorsal setae  $ch_1$  and  $ch_2$  present. Pair of ventral setae  $su$  present. Palp with 2 pairs of setae  $dGe$  and  $dFe$ , ventral solenidion, and accessory setigenous structure. Dorsal medial apodeme absent.

Idiosomal dorsum (Fig. 1). Stigmata long. All tergites smooth. All dorsal setae barbed. Setae  $sc_2$ ,  $c_1$ ,  $c_2$ , and  $h_1$  pointed, other dorsal setae blunt-ended. Length of dorsal setae:  $v_1$  28 (26–32),  $v_2$  21 (19–22),  $sc_2$  70 (61–78),  $c_1$  50 (45–53),  $c_2$  67 (53–70),  $d$  56 (41–62),  $e$  31 (30–40),  $f$  61 (52–64),  $h_1$  48 (47–48),  $h_2$  51 (42–52). Distances between dorsal setae:  $v_1-v_1$  23 (19–23),  $v_2-v_2$  32 (26–32),  $sc_2-sc_2$  31 (26–31),  $c_1-c_1$  38 (36–46),  $c_1-c_2$  29

(26–31),  $d-d$  45 (41–51),  $e-f$  17 (12–17),  $f-f$  50 (50–58),  $h_1-h_1$  33 (31–34),  $h_1-h_2$  10 (10–11). Trichobothrium with thin stem, distally spherical.

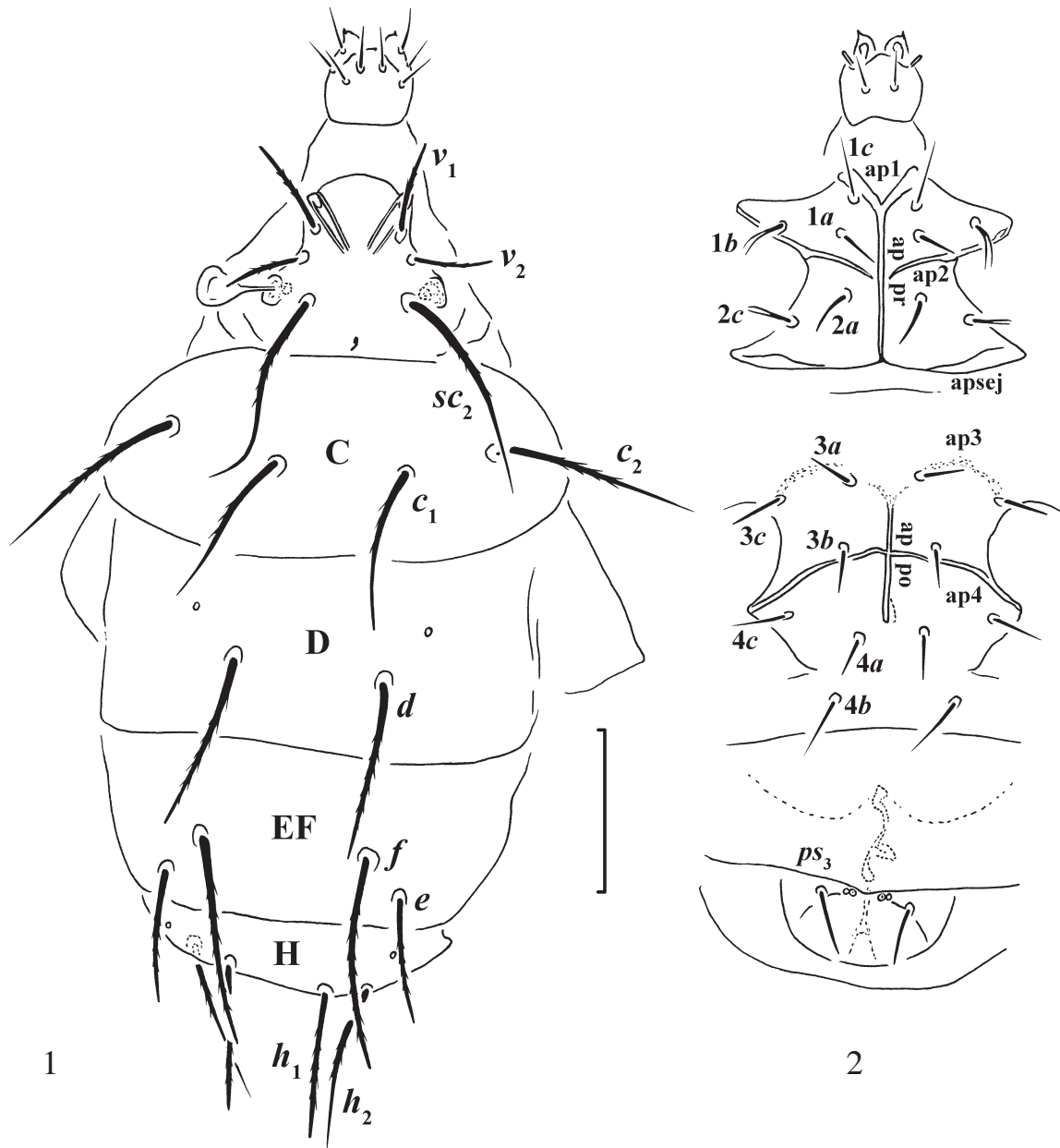
Idiosomal venter (Fig. 2). All ventral setae smooth. Setae  $1a$ ,  $2a$ ,  $3a$ ,  $3b$ , and  $3c$  needle-like. Setae  $1b$  and  $2c$  bifurcate. Setae  $ps_1$  and  $ps_2$  represented by alveoli. All ventral plates smooth.  $Ap1$  and  $ap2$  well developed and joined with presternal apodeme ( $appr$ ); sejugal apodeme ( $apsej$ ) weakly developed in medial part and strong laterally; apodemes 3 ( $ap3$ ) weakly developed, diffuse. Apodemes 4 ( $ap4$ ) well sclerotized and reach beyond setae  $3b$  and joined with poststernal apodeme ( $appo$ ), apodemes 5 absent. Posterior margin of posterior sternal plate weakly concave. Length of ventral setae:  $1a$  11 (10–13),  $1b$  13 (13–18),  $1c$  15 (15–18),  $2a$  14 (12–15),  $2c$  13 (13–15),  $3a$  13 (11–13),  $3b$  11 (11–13),  $3c$  13 (11–15),  $4a$  14 (14–17),  $4b$  19 (18–21),  $4c$  16 (14–17),  $ps_3$  17 (17–21).

Legs (Figs. 3–6). Leg I (Fig. 3): Tr 1 – Fe 4 – Ge 4 – Ti6(2) – Ta 10 (2) (number of solenidia in parenthesis). Setae  $ft'$  absent. Solenidia  $\omega_1$  8(7–9) and  $\omega_2$  5(4–6) lanceolate. Solenidion  $\phi_1$  6(6–7) clavate, solenidion  $\phi_2$  5(4–5) uniformly thin. Setae  $l'FeI$  and  $v'TrI$  blunt-ended. Leg II (Fig. 4): Tr 1 – Fe 3 – Ge 3 – Ti 4(1) – Ta7(1). Tarsus with sickle-like non-padded claws. Solenidion  $\omega$  7(6–7) elliptical. Setae  $v'trII$  and  $l'FeII$  blunt-ended. Leg III (Fig. 5): Tr 1 – Fe 2 – Ge 2 – Ti 4(1) – Ta 6. Claws of same shape as on tarsus II. Setae  $v'TrIII$  blunt-ended. Leg IV (Fig. 6): Tr 0 – Fe 2 – Ge 1 – Ti 4(1) – Ta 6. Tarsus with two well developed simple claws.

**Male and larva unknown.**

**Type material.** Female holotype, slide No. AK100408, UKRAINE, Crimea, Yalta, “Cape Martyan” nature reserve, in forest litter, 10 April 2008 (coll. A.A. Khaustov); paratypes: 8 females, with the same data as holotype.

**Type depositories.** The holotype is deposited in the collection of the Department of Acarology, Shmalgausen Institute of Zoology, Kiev, Ukraine; paratypes are in the collection of Nikita Botanical Gardens, Yalta, Ukraine.



Figs. 1-2. *Neositeroptes euxinus* sp. n., female: 1 — dorsum, 2 — venter. Scale bar 50  $\mu$ m.

**Etymology.** The name of new species refers to geographical distribution near the Black Sea (Pontus Euxinus).

**Differential diagnosis.** The new species differs from all known species of the genus *Neositeroptes* by the bifurcate setae 2c (always simple in other species) and by the absence of setae *ft'* on tarsus I (present in other species).

**Remarks.** The new species characterised by the two remarkable characters which never been found in the genus *Neositeroptes*. First of them is the bifurcate setae 2c. Females of many species of the mite families Pygmephoridae and Neopygmephoridae have bifurcate setae 1b, but bifurcate setae 2c never been found previously in the Pygme-

phoroidea. The second remarkable character is the absence of setae *ft'* on tarsus I. This synapomorphic character also known in *Sevastianoviella lacidus* (Livshits, Mitrofanov, Sharonov 1988) belonging to a closely related genus. However, in *S. lacidus*, setae *ft''* is also absent.

**ACKNOWLEDGEMENT**

This work supported by grant 104.3-08 of State Fund of Fundamental Researches.

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Figs. 3-6. *Neositeroptes euxinus* sp. n., female legs I-IV, respectively. Scale bar 20  $\mu$ .

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