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TWO NEW SPECIES OF THE MITE GENUS *ELATTOMA* (ACARINA: HETEROSTIGMATA: PYGMEPHORIDAE) FROM RUSSIA AND THE U.S.A.

ДВА НОВЫХ ВИДА КЛЕЩЕЙ РОДА *ELATTOMA* (ACARINA: HETEROSTIGMATA: PYGMEPHORIDAE) ИЗ РОССИИ И США

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Ключевые слова: *Elattoma*, Pygmephoridae, Россия, США, новые виды

ABSTRACT

Two new species of the mite genus *Elattoma* Mahunka, 1969 are described. *Elattoma alni* sp.n. from Russia (Moscow Distr.) and *Elattoma alaskensis* sp.n. from the USA (Alaska). Both species were found to be phoretic on bark beetles.

РЕЗЮМЕ

Приводится описание двух новых видов клещей рода *Elattoma* Mahunka, 1969. *Elattoma alni* sp.n. из России (Московская обл.) и *E. alaskensis* sp.n. из США (Аляска). Оба вида были найдены форезировавшими на жуках-короедах.

Mites of the genus *Elattoma* Mahunka, 1969 (= *Pygmephorellus* Cross et Moser, 1971, part.) [Khaustov, 2000] are associated with bark beetles (Coleoptera: Scolytidae) [Cross, Moser, 1971, Khaustov, 2000]. During my study of mites associated with bark beetles, two new species of the genus *Elattoma* were found in Russia (Moscow distr.) and the USA (Alaska). Descriptions of the new species based on phoretic females only are given below.

The terminology used in the descriptions follows that of Lindquist [1986]. All measurements are given in micrometers (μm) for holotype and 5 paratypes (in parenthesis). Type material is deposited in the Department of Acarology, Shmalgausen Institute of Zoology, Kiev, Ukraine.

Elattoma alni sp. n.

Figs. 1–6.

Description of female

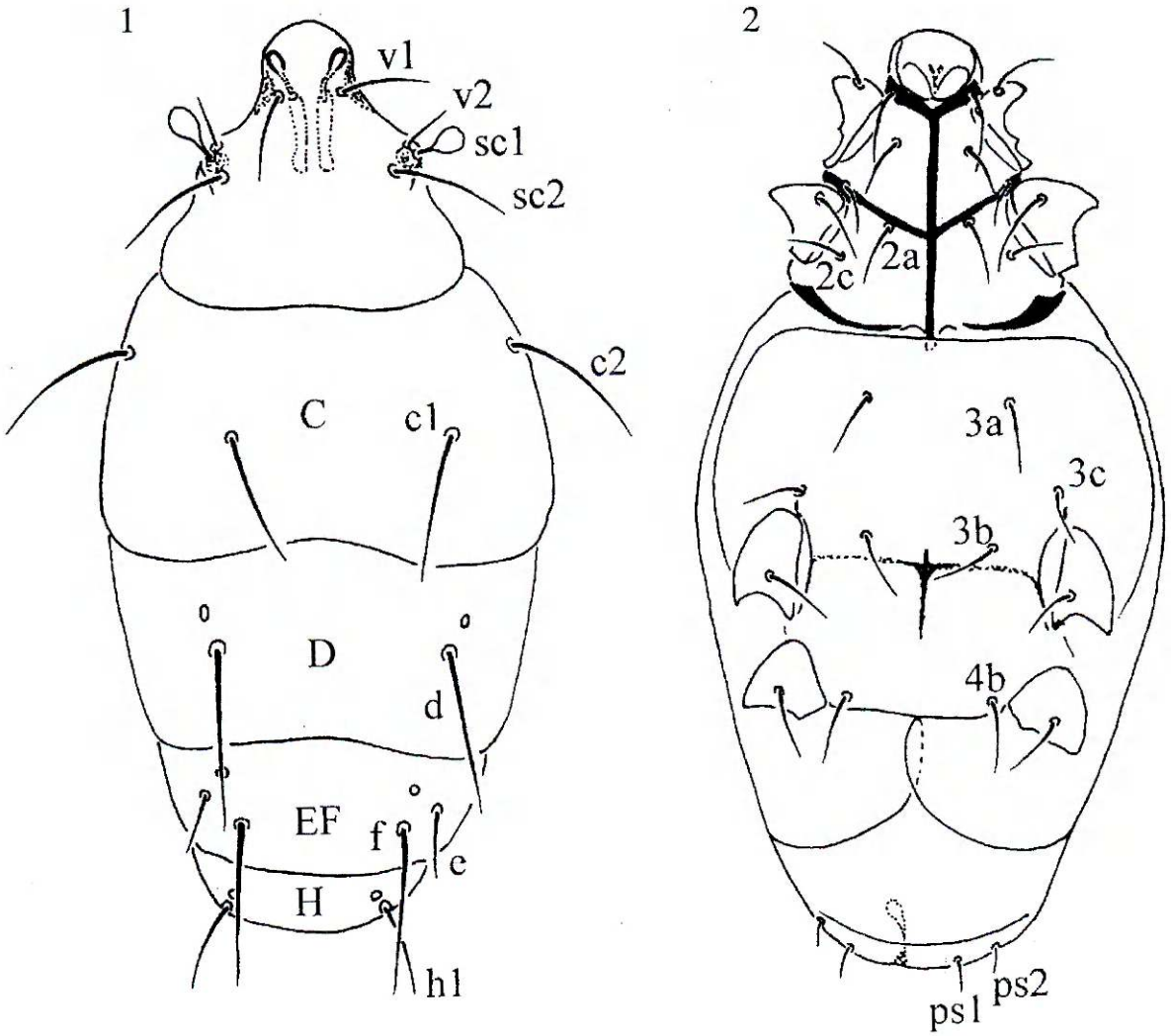
Length of idiosoma 177 (179–203), maximum width 94 (91–111).

Gnathosoma. Dorsally with 1 pair of setae. Ventral surface with 1 pair of setae. Each palp with 2 dorsal setae; ventrally with mushroom-like process.

Idiosomal dorsum (Fig. 1). Tergites smooth. Posterior margin of dorsal propodosomal plate slightly concave. Trichobothria (Fig. 1) oval, with wave-like distal portion. Cupules ia, im and ih small, oval. All dorsal setae smooth, sharply pointed. Setae h2 absent. Length of dorsal setae: v1 19(19–21), v2 13(12–15), sc2 27(26–28), c1 28(26–29), c2 30(26–34), d 30(29–33), e 16(13–17), f 33 (31–37), h1 21(18–23). Distances between dorsal setae: v1–1 10(11–13), v2–2 39(38–41), sc2–2 33(32–36), c1–1 44(41–48), c2–2 73(69–80), d–d 48(47–56), e–e 48(47–53), f–f 34(33–37), h1–1 31(31–32).

Idiosomal venter (Fig. 2). Ventral plates smooth. All ventral setae short and smooth. Apodemes 1 and 2 fused with medial propodosomal apodemes. Metapodosomal venter with short medial apodeme and vestigial apodemes 4 (Fig. 2), other apodemes absent.

Legs (Figs. 3–6). Leg I (Fig. 3): setae formulae: Tr1–Fe4–Ge2–TiTa17(2) (number of solenidia in parenthesis). Tibiotarsus thickened, with massive claw. Solenidion ω2 3(3), uniformly thin. Solenidion ω1 5(5), thickened distally (Fig. 3). Setae dFe broadened, hook-like. Leg II (Fig. 4): Tr1–Fe2–Ge1–Ti4(1)–Ta5(1). Trochanter unusually big. Tarsus with strongly developed claws, with basal thickenings (Fig. 4). Solenidion ω3(3) slightly broadened at middle portion, anterior to spine-like setae pl″. Leg III (Fig. 5): Tr1–Fe1–Ge1–Ti4(1)–Ta5. Femur divided into basi- and telofemur. Claws as on tarsus II. Setae pl″ spine-like (Fig. 5). Leg IV (Fig. 6): Tr1–Fe2–Ge0–Ti3(1)–Ta6. Tarsus with pretarsus and two small claws,



Figs. 1–2. *Elattoma alni* sp. n., female: 1 — dorsal view, 2 — ventral view.
Рис. 1–2. *Elattoma alni* sp. n., самка: 1 — дорсальная сторона тела, 2 — вентральная сторона тела.

empodium extended, distally widened. Seta pl″ short, setiform, inserted just behind long, wipe-like seta tc″.

Male, immatures. Unknown.

Type material. Holotype (female): Russia, Moscow distr., Voskresensk reg., station Konobeevo, on *Dryocoetes alni* (Georg, 1856), on *Alnus* sp., 21.06.1997, leg. N.B. Nikitskiy; paratypes: 13 females with same data as holotype.

DIFFERENTIAL DIAGNOSIS

The new species is closely related to *Elattoma kornilovi* Khaustov, 2000 but differs by the longer setae f (33–37 vs. 27 in *E. kornilovi*), better developed trochanter II, and spiniform seta pl″ on tarsus II (spatulate in *E. kornilovi*).

ETYMOLOGY

The new species is named «*alni*» referring to its host name.

Elattoma alaskensis sp. n.

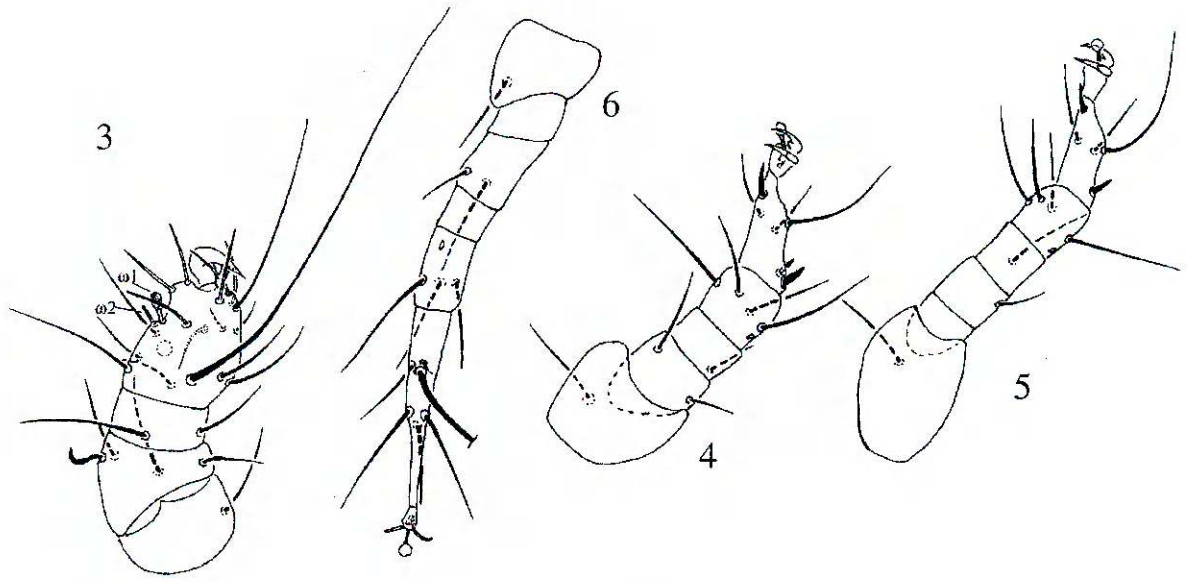
Figs. 7–12.

Description of female

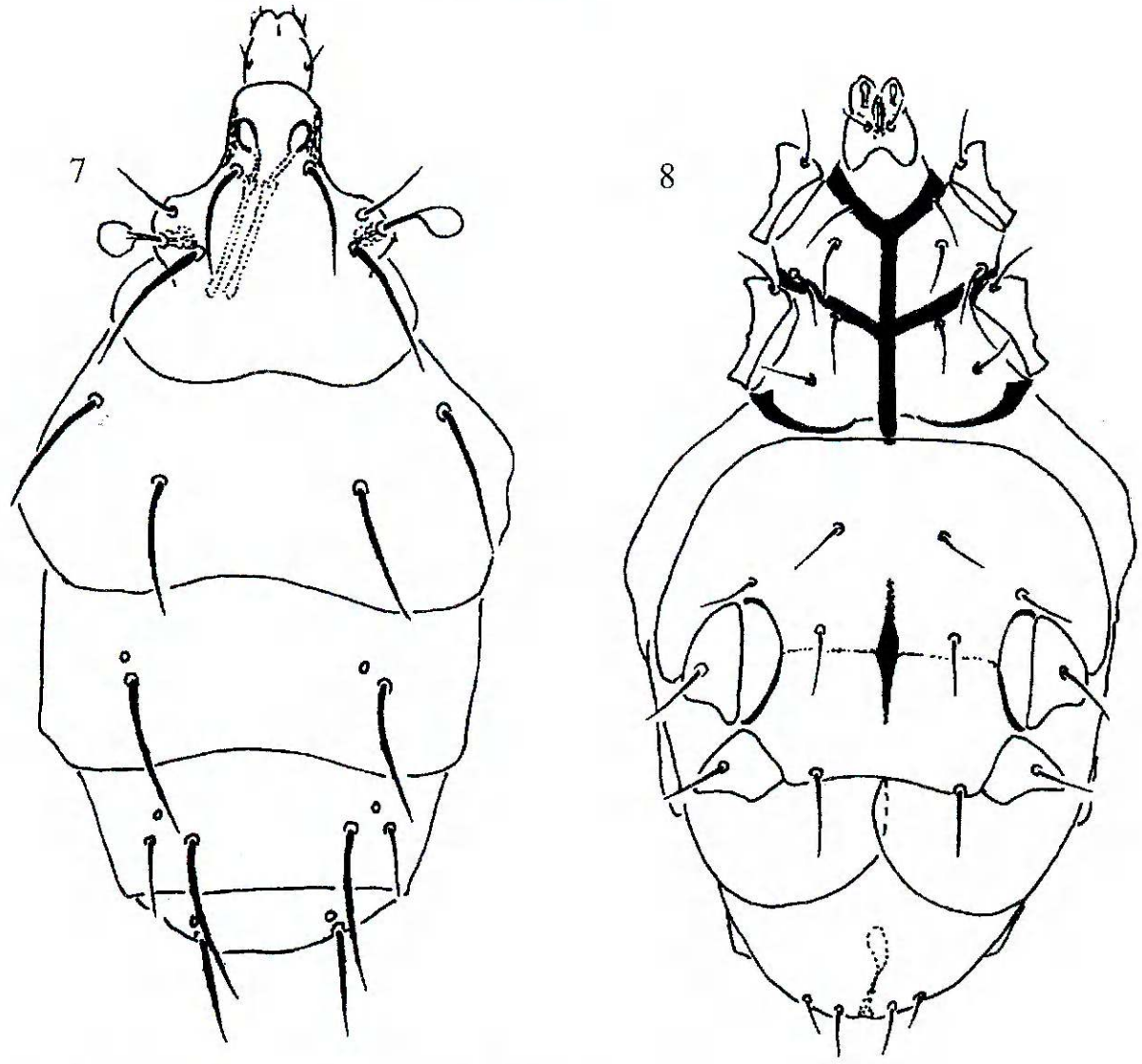
Length of idiosoma 173 (168–182), maximum width 102 (93–100).

Gnathosoma (Figs. 7–8). There is 1 pair of dorsal and 1 pair of ventral setae. Each palp with 2 dorsal setae; ventrally with mushroom-like process.

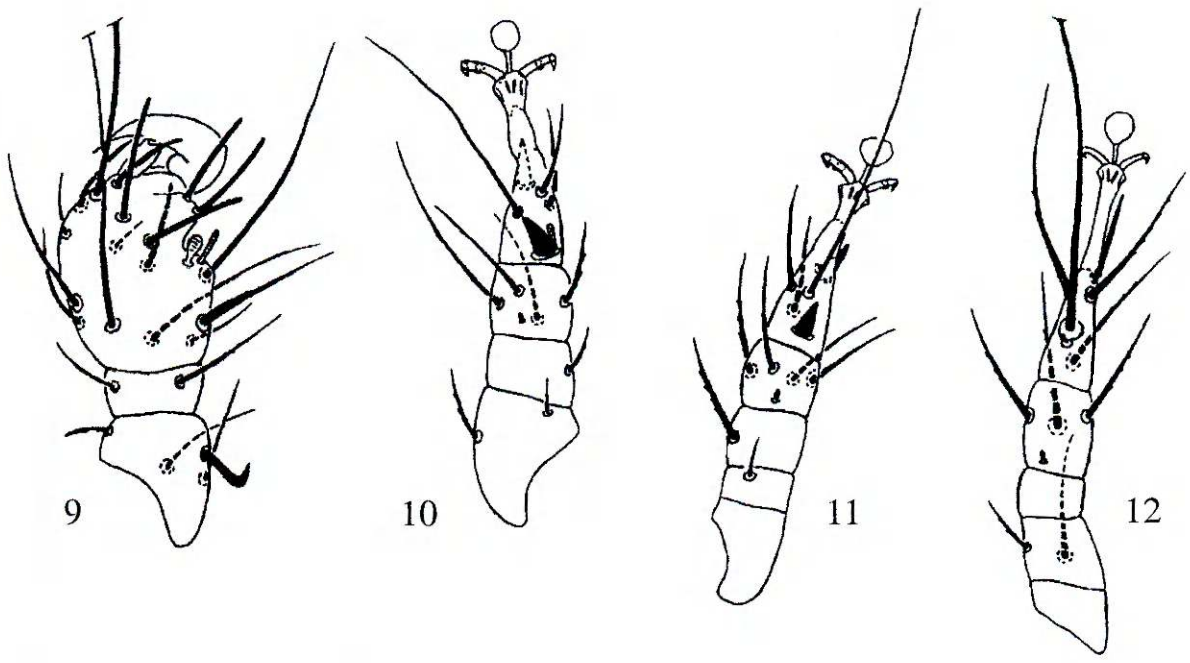
Idiosomal dorsum (Fig. 7). Tergites smooth. Posterior margin of dorsal propodosomal plate slightly concave. Trichobothria (Fig. 2) oval, smooth. Cupules ia, im and ih small, oval. Propodosomal setae smooth. All hysterosomal setae slightly serrated, except smooth setae e. Setae h2 absent. Length of dorsal setae: v1 22(19–21), v2 14(14–17), sc2 30(31–32), c1 29(29–32), c2 31(30–34), d 31(31–33), e 16(16–19), f 31 (30–36), h1 22(22–25). Distances between dorsal setae: v1–1 11(9–



Figs. 3–6. *Elattoma alni* sp. n., female: 3–6 — legs I–IV, respectively.
Рис. 3–6. *Elattoma alni* sp. n., самка: 3–6 — ноги I–IV, соответственно.



Figs. 7–8. *Elattoma alaskensis* sp. n., female: 7 — dorsal view, 8 — ventral view.
Рис. 7–8. *Elattoma alaskensis* sp. n., самка: 7 — дорсальная сторона тела, 8 — вентральная сторона тела.



Figs. 9–12. *Elattoma alaskensis* sp. n., female: 9–12 legs I–IV, respectively.
Рис. 9–12. *Elattoma alaskensis* sp. n., самка: 9–12 ноги I–IVсоответственно.

12), v2–2 41(39–41), sc2–2 36(33–37), c1–1 42(44–50), c2–2 70(67–72), d–d 51(51–54), e–e 49(46–53), f–f 33(33–36), h1–1 31(31–33).

Idiosomal venter (Fig. 8). Ventral plates smooth. All ventral setae short and smooth. Apodemes 1 and 2 fused with medial propodosomal apodemes. Metapodosomal venter with short medial apodeme and vestigial apodemes 4 (Fig. 8), other apodemes absent.

Legs (Figs. 9–12). Leg I (Fig. 9): Tr1–Fe4–Ge2–TiTa17(2). Tibiotarsus thickened, with well-developed claw. Solenidion ω2 6(5–6), thickened distally; ω1 5(4–5), uniformly thin (Fig. 9). Setae dFe broadened, hook-like. Leg II (Fig. 10): Tr1–Fe2–Ge1–Ti4(1)–Ta5(1). Tarsus with well-developed padded claws (Fig. 10). Solenidion ω4(4), slightly broadened distally, laterad to spiniform setae pl″. Leg III (Fig. 11): Tr1–Fe1–Ge1–Ti4(1)–Ta5. Femur divided into basi- and telofemur. Claws as on tarsus II. Setae pl″ spiniform (Fig. 11). Leg IV (Fig. 12): Tr1–Fe2–Ge0–Ti3(1)–Ta6. Tarsus with pretarsus and two small claws, empodium extended, distally widened. Seta pl″ short, spine-like, placed behind long, wipe-like seta tc″.

Male, and immatures. Unknown.

Type material. Holotype (female): USA, Alaska, Wrangell-Saint Elias National Park and Preserve, road McCarthy-Kennicott, on *Ips perturbatus* (Eichhoff, 1869) in forest litter of *Populus tremuloides*, *Picea*, *Salix*, 14.07.1998, leg. Gusarov; paratypes: 2 females, same data; 4 females, on *Ips tridens* (Mannerheim, 1852), same data.

DIFFERENTIAL DIAGNOSIS

The new species is closely related to *Elattoma bennetti* (Cross et Moser, 1971), but differs by strong and serrated hysterosomal setae (smooth in *E. bennetti*).

ETYMOLOGY

The new species is named «*alaskensis*» referring to its geographical distribution.

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