

## New Palaearctic species of Phthiracaroidea (Acari, Oribatida)

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KEY WORDS : New species, Phthiracaroidea, Palaearctic

The paper describes three new ptyctimous mites (Acari, Oribatida) belonging to the superfamily Phthirac-

aroidea. The new species represent three genera and were collected from different and distant areas of the Palaearctic Region, i.e. Canary Islands, Turkey and Ukraine. All types are deposited in Department of Animal Taxonomy and Ecology, A. Mickiewicz University, Poznań, Poland. All measurements are given in micrometers.

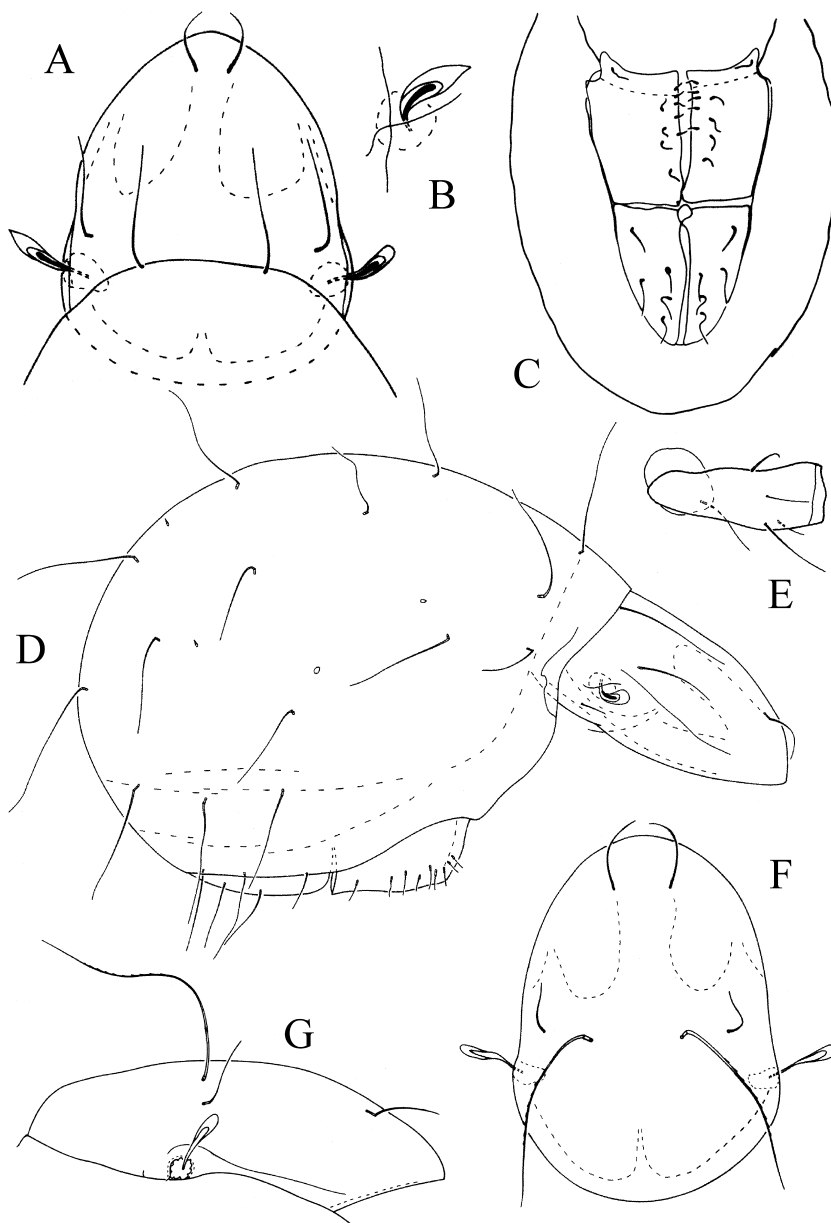


Fig. 1. – A-E. *Phthiracarus schusteri* sp. nov. (holotype): A- prodorsum, dorsal view, B – sensillus, dorsal view, C – ventral side, D – lateral view of body, E – trochanter and femur of leg I, lateral view. F-G. *Austrophthiracarus gomerensis* sp. nov. (holotype): F – prodorsum, dorsal view, G – prodorsum, lateral view

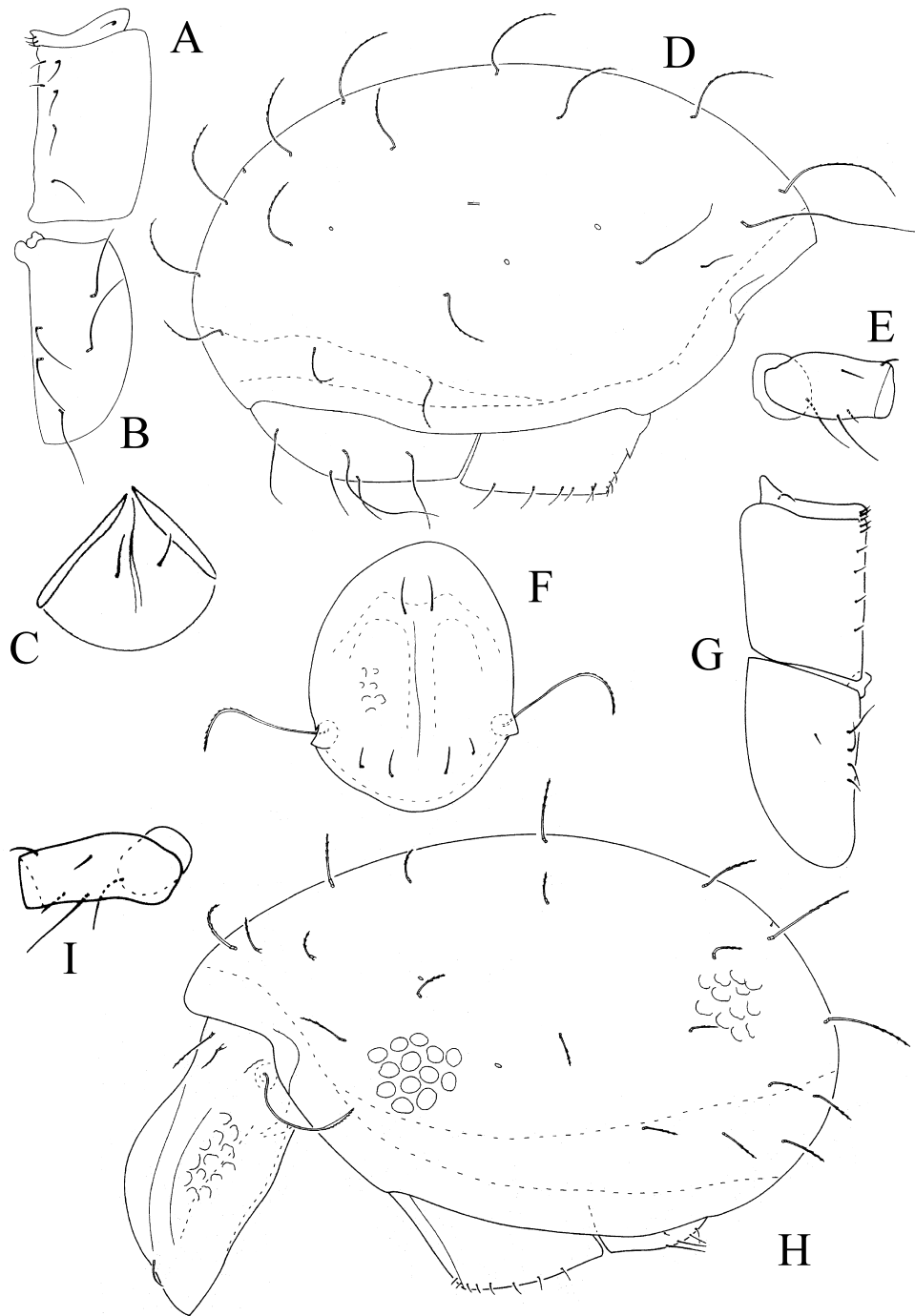


Fig. 2. – A-E. *Austrophthiracarus gomerensis* sp. nov. (holotype): A – left genitoaggenital plate, B – left anoadanal plate, C – mentum of infracapitulum, D – notogaster, lateral view, E – trochanter and femur of leg I, lateral view. F-I. *Atropacarus (Atropacarus) paraserratus* sp. nov. (holotype): F – prodorsum, dorsal view, G – right genitoaggenital and anoadanal plates, H – lateral view of body, I – trochanter and femur of leg I, lateral view.

*Phthiracarus schusteri* sp. nov.

(Figs 1 A-E)

**Description.** Measurements of holotype: prodorsum: length 202, width 149, height 83.5, sensillus 25.3, setae: interlamellar 78.4, lamellar 53.1, rostral 43.0, exobothridial 17.7; notogaster: length 352, width 238, height 250,

setae:  $c_1$  83.5,  $h_1$  86.0,  $ps_1$  75.9; genitoaggenital plate 88.5x60.7, anoadanal plate 88.5x50.6.

Rather small species. Colour dark yellow brown. Integument densely porous.

Prodorsum with distinct and long lateral carinae. Sigillar fields present, median longer than lateral ones. Sensilli

short, spindle-shaped, pointed distally, smooth. Setae of medium length, attenuate,  $in > le > ro > ex$ .

Notogaster with 15 pairs of non vestigial, fairly long setae, setae  $c_1$  shorter than distance  $c_1-d_1$ . Setae of row  $c$  near the anterior border, setae  $c_2$  slightly more remote than setae  $c_1$  and  $c_3$ . Vestigial setae  $f_1$  far anterior of setae  $h_1$ . Two pairs of lyrifissures  $ia$  and  $im$  present.

Ventral region. Setae  $h$  of mentum longer than distance between them. Formula of genital setae: 4+3: 2. Anoadanal plates with well-developed anal and adanal setae. All setae except shorter  $ad_3$  setae similar in length.

Setation of legs complete. Setae  $d$  of femora I located in the middle of article.

**Types.** Holotype. Turkey, RS 576a (detailed list of localities is accessible from the collection of Prof. R. Schuster, University of Graz).

**Etymology.** The specific epithet is chosen in honour of the owner of the sample, an excellent acarologist – Prof. R. Schuster.

**Comparison.** The new species is similar to some other Palearctic species but is distinguishable by the following characters: setae of row  $c$  of notogaster located near of anterior border, vestigial setae  $f_1$  placed anteriorly to setae  $h_1$  and adanal setae  $ad_1$  and  $ad_2$  not longer than anal setae. Comparison to similar species: *Phthiracarus opacus* Niedbala, 1986 has vestigial setae  $f_1$  located posteriorly to  $h_1$  setae and adanal setae  $ad_1$  and  $ad_2$  longer than other setae of the plates; *P. assimilis* Niedbala, 1983 has longer setae of body,  $h$  setae of infracapitulum shorter than distance between them and adanal setae  $ad_1$  and  $ad_2$  longer than other setae; *P. clavatus* Parry, 1979 has setae of row  $c$  of notogaster more remote from border, setae  $h$  of infracapitulum not longer than distance between them and adanal setae  $ad_1$  and  $ad_2$  vestigial or shorter than other setae; *P. dominiaki* Niedbala, 1984 has longer setae of body, especially adanal setae, setae of row  $c$  remote from anterior border, and vestigial setae  $f_1$  located posteriorly of  $h_1$ ; *P. peristomaticus* Willmann, 1948 has setae  $c_1$  and  $c_2$  of notogaster remote from anterior border vestigial, setae  $f_1$  located posteriorly of  $h_1$  and longer adanal setae  $ad_1$  and  $ad_2$ ; *P. similis* Niedbala, 1981 has setae of row  $c$  remote from border and adanal setae and setae  $ad_1$  and  $ad_2$  vestigial.

*Austrophthiracarus gomerensis* sp. nov.

(Figs 1 F-G; 2 A-E)

**Description.** Measurements of holotype: prodorsum: length 278, width 202, height 106, sensillus 45.5, setae: interlamellar 180, lamellar 45.5, rostral 55.7, exobothridial 20.2; notogaster: length 575, width 364, height 353,  $c_1$  131,  $c_2$  172,  $c_3$  35.3,  $h_1$  and  $ps_1$  116; genitoaggenital plate 151x101, anoadanal plate 197x106.

Colour light brown. Surface of body punctate.

Prodorsum with indistinct sigillar fields, median longer than lateral ones. Lateral carinae distinct, long. Sensilli club-like, smooth, rounded distally. Interlamellar setae rigid, erect, bent posteriorly covered sparsely with small spines in distal half. Lamellar and rostral setae simple, smooth,  $in > ro > le > ex$ .

Notogaster with 17 pairs non vestigial, rather short ( $c_1 < c_1-d_1$ ) setae, bent anteriorly as interlamellar setae

covered sparsely with small spines in distal half. Additional setae in rows  $h$  and  $ps$ . Only setae  $c_2$ ,  $c_3$  and  $cp$  smooth. Setae  $c_2$  very long, setae  $c_3$  very short. Setae of row  $c_{1-3}$  remote from anterior border in equal distance. Vestigial setae  $f_1$  posteriorad of  $h_1$  setae.

Ventral region. Setae  $h$  of mentum equal to distance between them. Genitoaggenital plates with 9 pairs of genital setae with arrangement 4+2: 3. Anoadanal plates each with 5 pairs of setae, anal setae shorter than adanal, setae  $ad_2$  the longest, flagelliform, smooth.

Legs. Formulae of setae and solenidia of “complete type”. Spiniform setae  $d$  of femora I located at the end of article.

**Types.** Holotype and 15 paratypes. Canary Islands (no MMMCCCVII), La Gomera, 4km S of Hermigua, bushes above road, 3 III 2002, leg. W. Niedbala. One paratype. Canary Islands (no MMMCCCIX), La Gomera, El Convento, banana plantation, 3 III 2002, leg. W. Niedbala.

**Etymology.** The specific epithet *gomerensis* refers to the locality of this species in Gomera island.

**Comparison.** The new species may be differentiated from its congeners by the presence of smooth setae  $c_2$ ,  $c_3$  and  $cp$ , unusual length of setae  $c_2$  (very long) and setae  $c_3$  (very short) as well as by the very long adanal setae  $ad_2$ .

**Remark.** The species of this genus have been found mostly in the southern hemisphere. However, the ranges of individual species have reached further to the North, namely to the Palearctic Region especially in its eastern margins, more specifically to the islands of Japan (1) and northern India (2).

*Atropacarus (Atropacarus) paraserratus* sp. nov.

(Figs 2 F-I)

**Description.** Measurements of holotype: prodorsum: length 220, width 152, height 86.0, sensillus 81.0, setae: interlamellar 37.9, lamellar 22.8, rostral 30.4; notogaster: length 424, width 263, height 242, setae:  $c_1$  40.5,  $h_1$  63.2,  $ps_1$  58.2,  $ps_2$  32.9; genitoaggenital plate 101x70.8, anoadanal plate 101x63.2, the longest setae of anoadanal plates 17.7.

Small species. Colour grey-brown. Sculpture of body strong, surface covered with deep, regular concavities.

Prodorsum with distinct median ridge. Sigillar fields narrow, joined. Posterior furrows feeble. Lateral carinae absent. Sensilli long, narrow, slightly dilated in distal half, covered with small spines. Setae short, pointed distally covered with small spines;  $in > ro > le$ .

Notogaster with 20 pairs of non vestigial, obtuse, thick, rather short ( $c_1 < c_1-d_1$ ) setae, only setae  $h_1$  and  $ps_1$  longer; all setae covered with small spines. Neotrichy in setae of rows  $c$ ,  $h$  and  $ps$ . Setae  $c_{1-3}$  slightly remote from anterior border. Vestigial setae  $f_1$  located slightly anterior of  $h_1$ . Lyrifissures invisible because strong tegument.

Ventral region. Setae  $h$  of mentum shorter than distance between them. Formula of genital setae: 6: 3. Anoadanal plates with very short setae, diminishing posteriorly, setae  $ad_3$  minuscule.

Setation of legs of “complete type”. Setae  $d$  of femora I spiniform and slightly remote from distal end of article.

**Type.** Holotype. Ukraine (no U 96-23), „Tovtra Puszcza”, Miodobory locality, wood dust from sycamore trunk in oakhornbeam forest, 28 VIII 1996, leg. A. Szeptycki.

**Etymology.** The prefix *para* is Latin meaning “near” and refers to similarity of the new species to the species *Atropacarus (A.) serratus* (Feider et Suci, 1957).

**Comparison.** The new species is similar to *Atropacarus (A.) serratus* (Feider et Suci, 1957) in the longest setae *h* and *ps* of notogaster but the notogastral setae are not so inflated and the number is 20, not 19 pairs. The second similar species *A. (A.) csiszarae* (Balogh et Mahunka, 1979) has also 19 pairs of notogastral setae of similar length and sigillar fields of prodorsum not joined.

## ACKNOWLEDGEMENTS

I am much indebted to Prof. Prof. R. Schuster and A. Szeptycki who collected the sample material from Turkey and Ukraine.

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*Received: May 5, 2006*

*Accepted: November 5, 2007*