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Trimalaconothrus rafalskii n. sp. - a new oribatid mite species from Poland (*Acari*: *Oribatida*: *Malaconothridae*)

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ABSTRACT. *Trimalaconothrus rafalskii* n. sp. is described from Poland. The main character of the species is the relatively large body size.

Key words: acarology, taxonomy, *Oribatida*, *Malaconothridae*, new species, Poland.

The cosmopolitan genus - *Trimalaconothrus* BERLESE, 1916 - comprises about 50 species. So far in Poland the occurrence of 6 of them has been confirmed: *T. foveolatus* WILLM., *T. glaber* (MICH.), *T. maior* (BERL.) (= *T. novus* SELLN.), *T. maniculatus* FAIN et LAMBR., *T. tardus* (MICH.), and *T. vietsi* WILLM. (OLSZANOWSKI et al. 1996).

The nature reserve "Cisy Staropolskie" near Wierzchlas, Pomerania, is the oldest in Poland and one of the oldest in Europe, founded almost 170 years ago to protect the greatest concentration of yew-trees (*Taxus baccata*) in Poland. In different types of plant communities in the area of the reserve 8 species of crotoniid mites have been identified so far: *Nothrus palustris* C.L. KOCH, *N. silvestris* NIC., *Camisia biurus* (C.L. KOCH), *C. spinifer* (C.L. KOCH), *Heminothrus peltifer* (C.L. KOCH), *H. targionii* (BERL.), *Trimalaconothrus glaber* (MICH.), and *Malaconothrus monodactylus* (MICH.) (= *M. gracilis* VAN DER HAMMEN). A species of the genus *Trimalaconothrus* was found on the border of a peat-bog. It is new to the science and its description is given below.
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Trimalaconothrus rafalskii n. sp.

ETYMOLOGY

Named after Prof. Jan RAFALSKI, an excellent Polish arachnologist, to whom this volume is dedicated. I consider it an honor to have been the last student working for an M. Sc. degree under the supervision of Prof. RAFALSKI before he retired.

DESCRIPTION

Body length: 840 μm; body width: 475 μm.

Color: light-brown.

Body wide (maximum width at level of setae f_2) and flattened, covered with cerotegument.

Prodorsum (Figs 1-4)

Tip of rostrum rounded, slightly protruding. Prodorsum wider dorsally than ventrally. Surface of notogaster pointed. One pair of arched ridges seen in dorsal aspect, runs from interlamellar setae towards lamellar setae. Rostral setae (*ro*) delicately pilose (Fig. 2), as long as distance between their bases. Lamellar setae (*le*) smooth; their tips do not reach bases of rostral setae. Exobothridial setae (*ex*) thin and short, but longer than notogastral setae c_1.

Notogaster (Figs 1, 5-7)

Notogaster broadest at level of setae f_2, its lateral and posterior margins slightly rounded. Pair of indistinct longitudinal medial ridges run posterior to setae d_1; second pair of dorsal ridges at level of setae f_2, visible as two inverted letters "v". Surface of notogaster delicately punctate; small, round light spots shine through dorsal shield in some less sclerified specimens. Pair of pigmented "eyes" in front of setae c_1 more or less visible. Most notogastral setae thin and smooth; some of marginal and posterior setae (especially *cp* and *ps* row) very slightly pilose (Fig. 6). Setae h_1, h_2 and ps_2 distinctly longer than other notogastral setae. Opisthosomal gland opening (*gla*) posterior to seta f_2.

Gnathosoma (Figs 8-10)

Mental setae (*h*) very long, more than twice longer than genal setae *a*; $h > a > m$. Palp setation (trochanter to tarsus): 0-0-1-3-9(1).

Ventral region (Fig. 2)

Epimeral setation: 3-1-2-3. Anal and genital shields of about the same length, bearing 7 and 1 pair of setae, respectively (no variability in number of genital setae has been observed). Three pairs of adanal setae, longer than genital and anal setae.

Legs (Fig. 11)

Tarsi tridactylous, median claw thicker and distinctly shorter than laterals. Setation of leg I (including famulus): 1-5-4(1)-4(1)-11(3). Tarsi I: setae *ft* similar in length and

shape; setae *tc* more than twice longer than setae *ft*; length of solenidia (ω) over half length of setae *ft*.

TYPE MATERIAL

28.V.1995; res. "Cisy Staropolskie" near Wierzchlas, Pomerania; border of a peat-bog with reed-grasses; from moss and turf; leg. J. BŁOSZYK & Z. OLSZANOWSKI [WCH-101] - 1 holotype (adult), 2 paratypes (adult and tritonymph). 24.V.1996; the same locality; leg. Z. OLSZANOWSKI - several specimens at different stages. Type material is deposited in the collection of Z. OLSZANOWSKI; some specimens collected in 1996 will be deposited in the Zoologisches Institut und Zoologisches Museum der Universität Hamburg, Germany and in the Field Museum of Natural History, Chicago, IL, USA.

REMARKS

The main character of the species, distinguishing it from all European species of the genus *Trimalaconothrus* is the relatively large body size. As far as I know only *T. samalotus* NASR et AFIFI, 1985 found in Egypt is slightly larger (862 μm). *T. rafalskii* appears to stand closest to *T. glaber* (MICHAEL, 1888) and *T. grandis* VAN DER HAMMEN, 1952. Apart from the body size, the differences between the former and the latter two are: shorter lamellar and interlamellar setae and shorter median claw on tarsi. From *T. glaber* it differs in the length of setae *ft* and *tc* on tarsi I - the latter setae are distinctly longer than solenidia in the new species (cf. FAIN and LAMBRECHTS 1987, page 107, Fig. 5). In *T. grandis* the proportion of the lengths of setae *tc* and *ft* is similar as in *T. rafalskii*, but the length of solenidia of the latter species is considerably greater (cf. HAMMEN 1988, page 34, Fig. 2.5.C).

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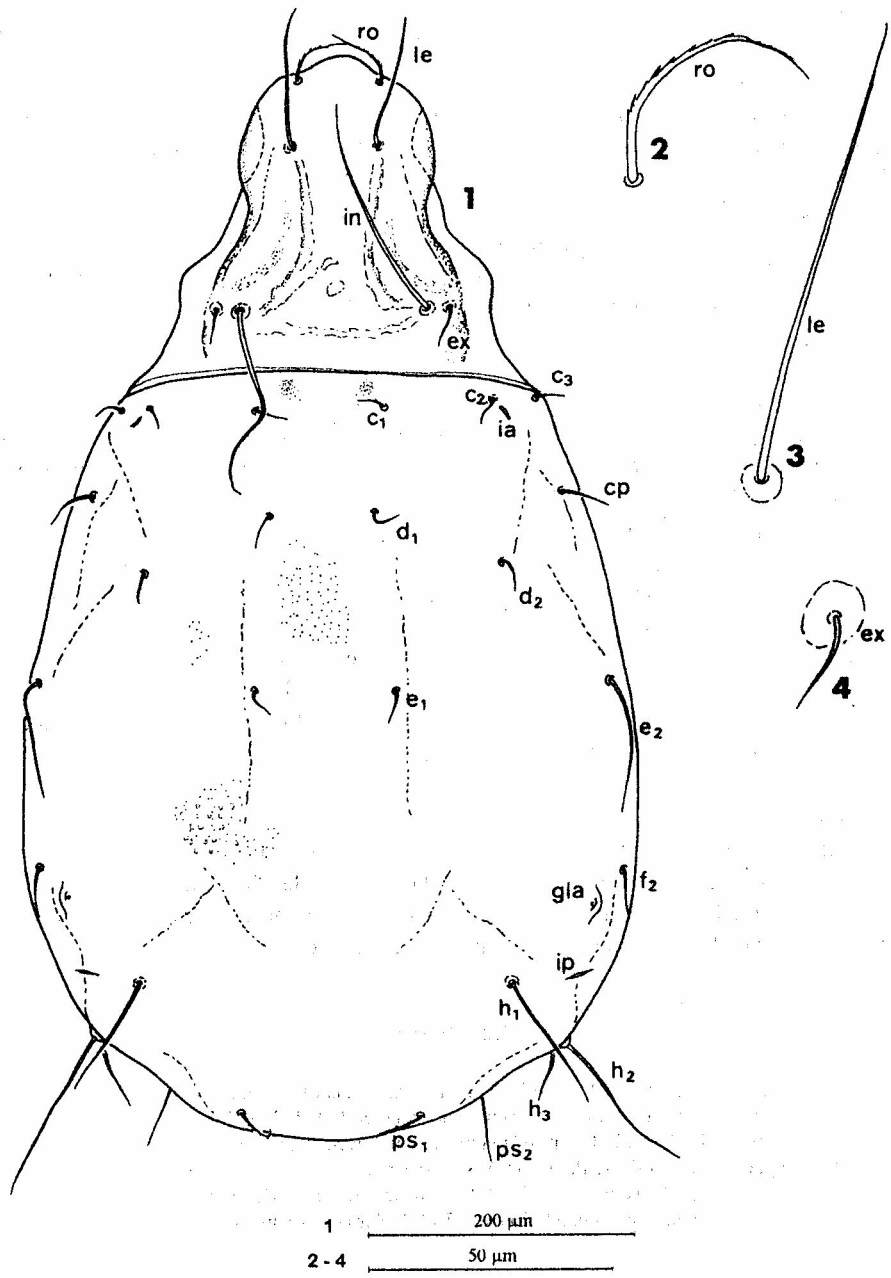
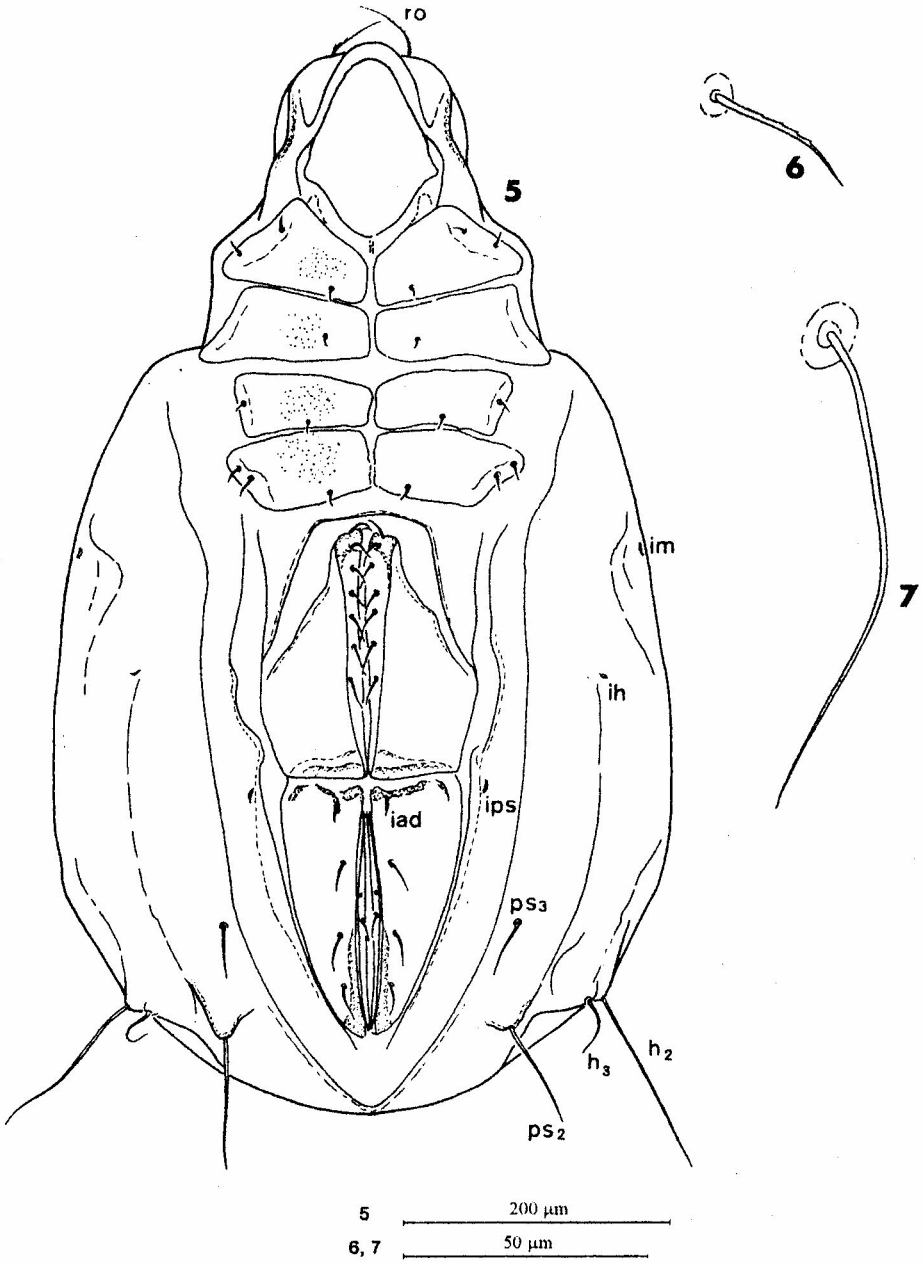
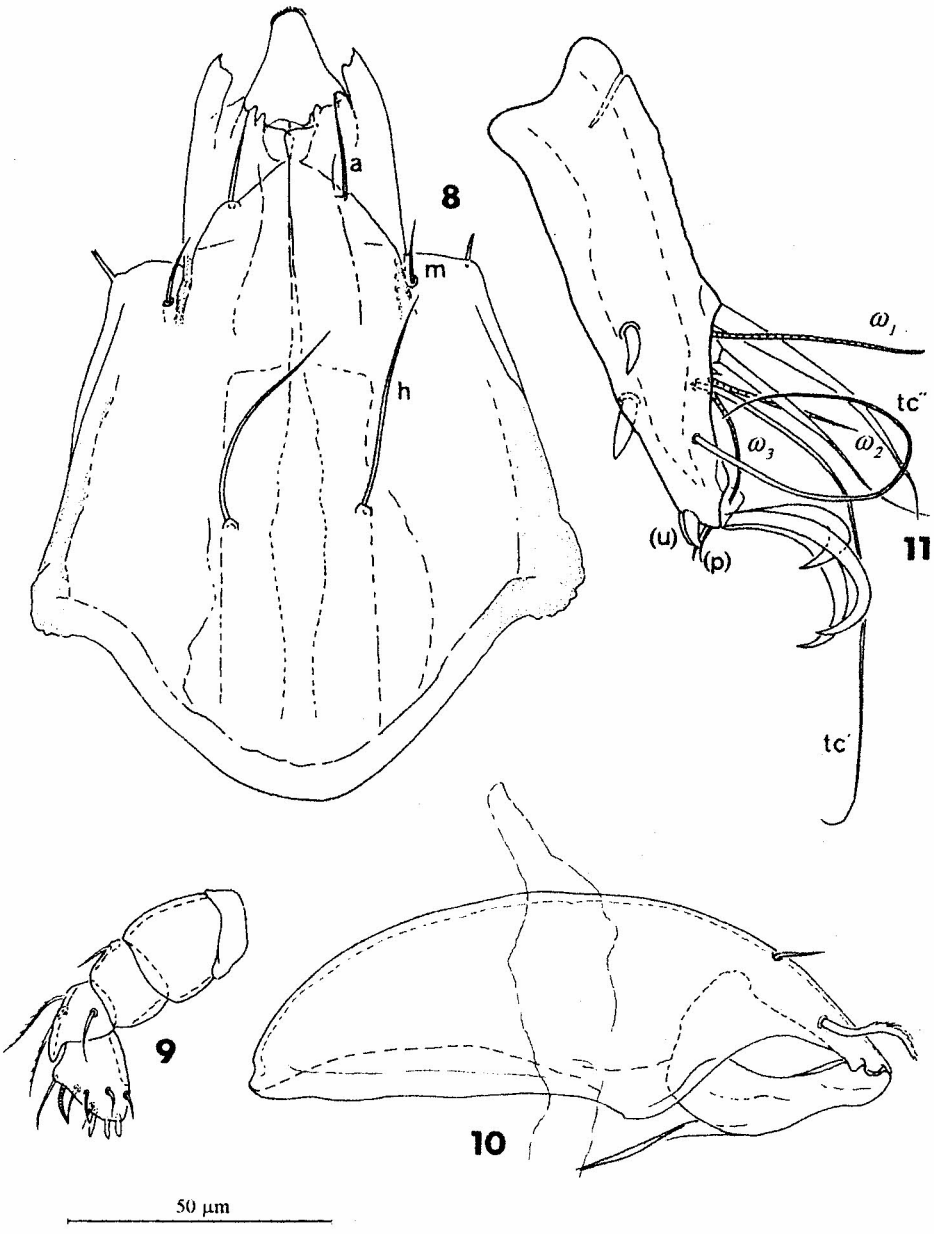


1-4. *Trimalaconothrus rafalskii* n.sp., adult: 1 - dorsal view; 2 - rostral seta; 3 - lamellar seta; 4 - exobothridial seta



5-7. *Trimalaconothrus rafalskii* n.sp., adult: 5 - ventral view; 6 - seta *cp*; 7 - seta e_2



8-11. *Trimalaconothrus rafalskii* n.sp., adult: 8 - subcapitulum, ventral view; 9 - palp, antiaxial view; 10 - chelicera, antiaxial view; 11 - leg I, tarsus, antiaxial view.