TÜBİTAK

Turkish Journal of Zoology

http://journals.tubitak.gov.tr/zoology/

Short Communication

Turk J Zool
(2016) 40: 112-116
© TÜBİTAK
doi:10.3906/zoo-1501-16

A new record of the genus *Camerotrombidium* Thor, 1936 (Acari: Microtrombidiidae) from Turkey

İbrahim KARAKURT*, Sevgi SEVSAY
Department of Biology, Faculty of Arts and Sciences, Erzincan University, Erzincan, Turkey

Received: 10.01.2015 • **Accepted/Published Online:** 15.07.2015 • **Final Version:** 01.01.2016

Abstract: A newly recorded species for the Turkish fauna, *Camerotrombidium rasum* Berlese, 1910, is given based on adult females and larvae obtained from an adult female by experimental rearing in the laboratory. The genus *Camerotrombidium* is recorded for the first time from Turkey.

Key words: Acari, Microtrombidiidae, *Camerotrombidium*, new record, Turkey

The genus *Camerotrombidium* includes 9 species. Two of them (*C. pexatum* and *C. rasum*) are known from both larval and postlarval forms. The others (*C. bullatum*, *C. fusiforme*, *C. globiferum*, *C. robense*, *C. sanguineum*, *C. sigthori*, and *C. vesiculosum*) are only known from postlarval forms (Mąkol and Wohltmann, 2012). This study contains descriptions of the adult female of *Camerotrombidium rasum* as a new record for Turkey, including larvae obtained from the adult female by experimental rearing. Examined materials were preserved in 70% ethyl alcohol. The morphological terminology follows Mąkol (2007) for larvae and Gabryś (1999) for postlarval instars. All measurements are given in micrometers.

Family Microtrombidiidae Thor, 1935

Genus *Camerotrombidium* Thor, 1936

Type species *Trombidium pexatum* C. L. Koch, 1837

Camerotrombidium rasum Berlese, 1910

Descriptions. Female. Body color is red throughout life. Body length 2050, width 1357.

Gnathosoma. Palps strong (Figure 1). Medial face of palp tibia with 2 ctenidia and radula. Lateral face of palp tibia with a basidont. Palp tarsus characteristic, long and cylindrical (Figure 2). Chelicerae comprise 2 segments (Figure 3).

Dorsum. Aspidosoma triangular in outline. Crista metopica with anterior process, sensillary area, and posterior process (Figure 4). Dorsal opisthosomal setae spherical or spheroidal and all setal stems covered with numerous setulae (Figure 5).

Ventrum. External genitalia composed of a pair of epivalves and centrovalves with 3 pairs of genital acetabula.

Legs. Legs shorter than idiosoma. Tarsus I L/W ratio about 2 (348 length, 170 width), tibia I shorter than tarsus I.

Larvae. All larvae reared from eggs deposited by females in the laboratory. Body length 316, width 196. Color in life red.

Gnathosoma. Movable gnathosoma with anterior ring-like sclerite (stephanostome) bearing 30–35 teeth (Figure 6). Setae *bs* in shape of stout calyx. Palpal femur and genu with one small spine-like seta each. *f*Pp formula: 0-N-N-NNN-NNNNNNωζζ (Figure 7).

Dorsum (Figure 8). Scutum quite large; wholly striate, punctuate, and bent anterolaterally (stolascutum). Anterior parts of scutum with ornamentations. Scutellum with punctuations but without striation and almost entire surface ornamentation similar to that of anterior part of scutum and bearing one pair of barbed setae c_1. *f*D formula: 6-6-6-6-4 (c_1-c_3, d_1-$_3$, e_1-$_3$, f_1-$_3$, h_1-$_2$).

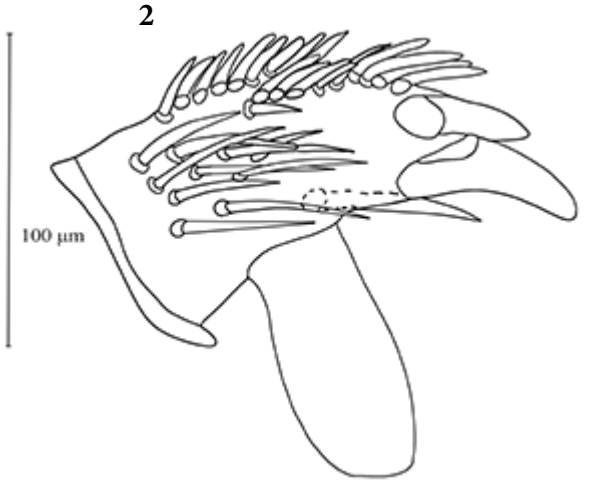
Ventrum (Figure 9). Claparède organs laterally between coxae I and II. All coxal plates punctuated. *f*Cx formula: NB-B-B. *f*V formula: 2u-2. Anal opening without sclerite.

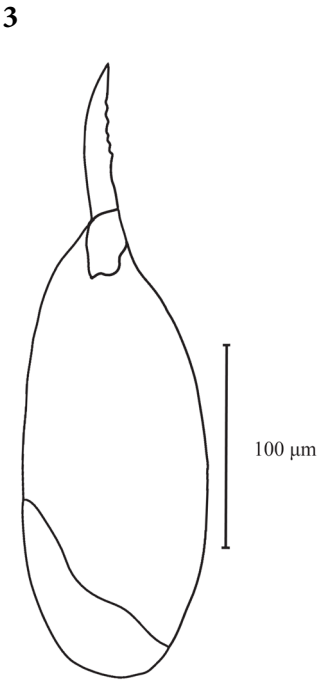
Legs (Figures 10–12). Legs setal formula: [I] Tr (1B) – Fe (5B, 1N) – Ge (4B, 2σ, 1κ) – Ti (6B, 2φ, 1κ) – Ta (18B, 2ζ, 1ω, 1ε); [II] Tr (1B) – Fe (4B, 1N) – Ge (2B, 1σ, 1κ) – Ti (5B, 2φ) – Ta (13 B, 1ω, 1ε, 1 ζ); [III] Tr (1B) – Fe (3B, 1N) – Ge (2B, 1σ) – Ti (5B) – Ta (11B, lop, scp). All tarsi terminated with 2 claws and a slender claw-like empodium.

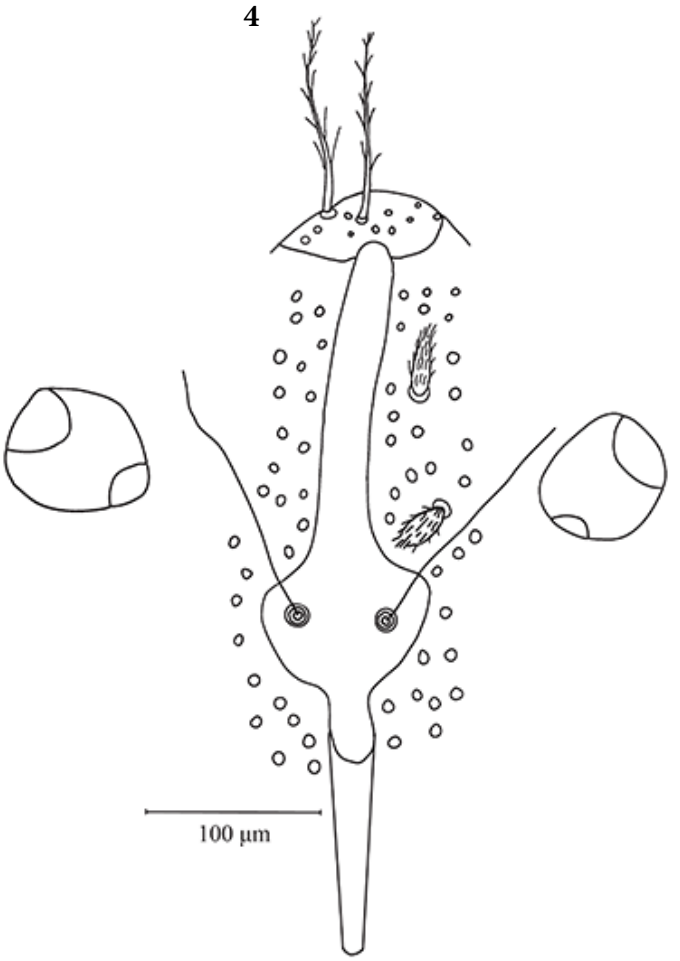
Material examined. Specimens (female) were collected directly (hand collecting) from the soil surface in a humid meadow in Bayburt Province, Turkey (40°09′10″N, 39°52′04″E, 1676 m a.s.l., 1 May 2014, leg. İ. Karakurt).

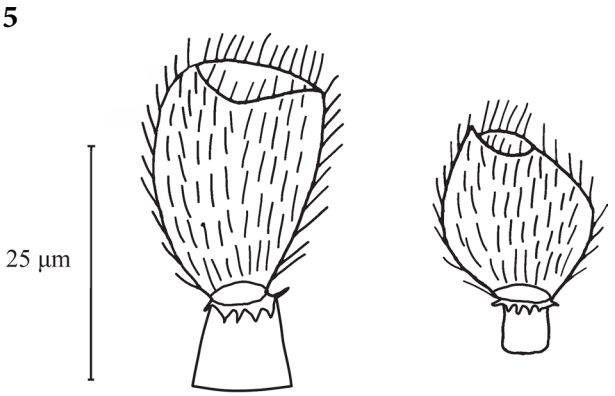
* Correspondence: ikarakurt07@hotmail.com



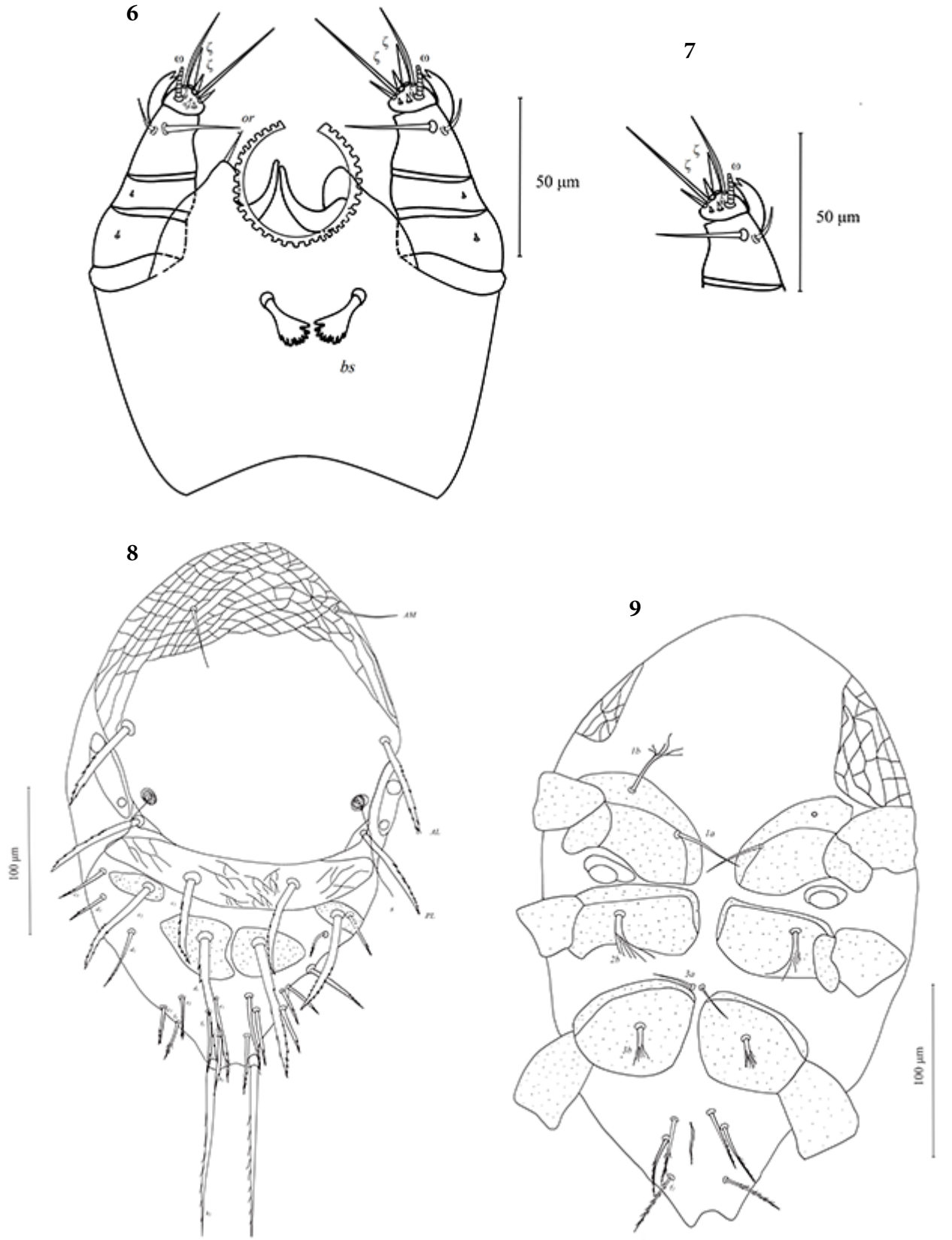




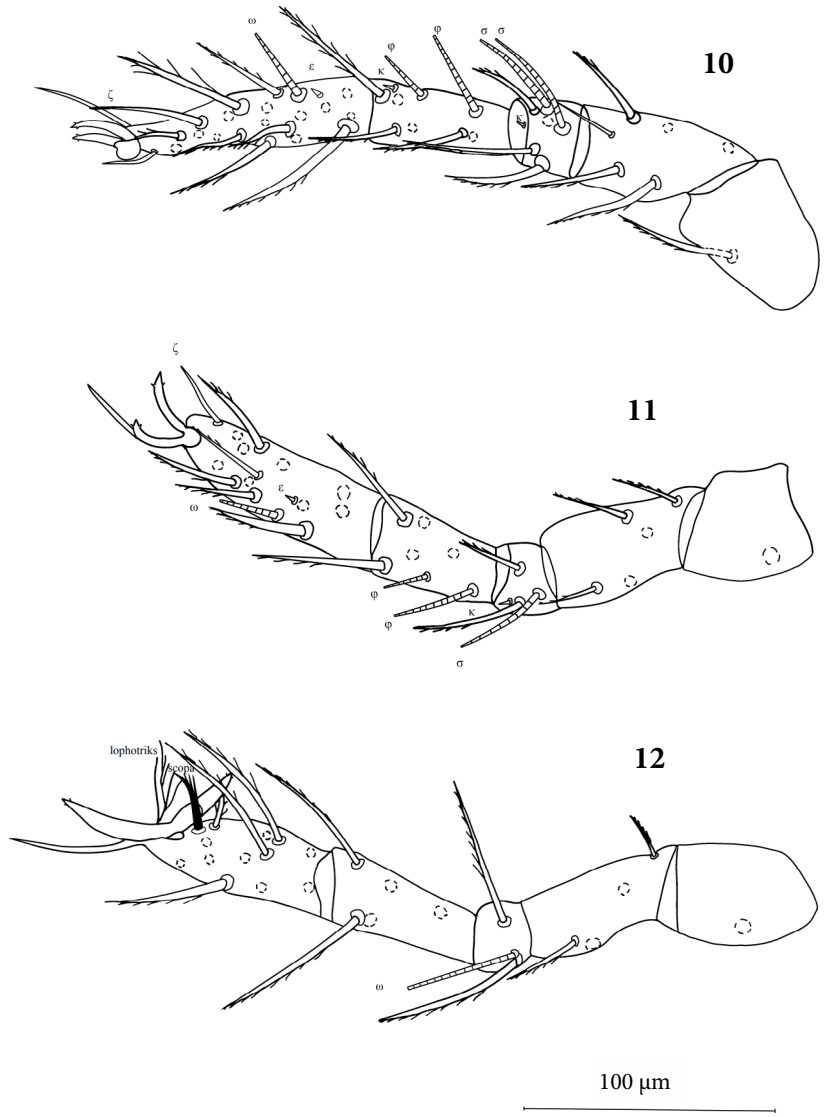




Figures 1–5. *Camerotrombidium rasum* (female): 1- Palp, medial aspect, setae omitted; 2- Palp tibia and tarsus, medial aspect; 3- Chelicera; 4- Crista metopica region; 5- Dorsal opisthosomal setae (pDS).



Figures 6–9. *Camerotrombidium rasum* (larvae): 6- Gnathosoma; 7- Palp tibia and tarsus; 8- Idiosoma (dorsal); 9- Idiosoma (ventral).



Figures 10–12. *Camerotrombidium rasum* (larvae): 10- Leg I; 11- Leg II; 12- Leg III.

Larvae were obtained from females by experimental rearing. All specimens were deposited in the Biology Department of Erzincan University, Erzincan, Turkey.

Distribution. Australia (Halliday, 1998), Czech Republic, Germany, Poland, Romania, Spain (Gabryś, 1986, 1996, 1999; Wohltmann et al., 2003; Mąkol and Wohltmann, 2012). New for Turkish fauna.

Turkish adult specimens of *Camerotrombidium rasum* are similar to the European specimens. The Turkish larval specimens of *C. rasum* seem different in several aspects from European specimens. Length of inner claw on tarsus III especially shows differences between Turkish and European specimens; according to Wohltmann et al. (2003), inner and outer claws on tarsi III are the same in length, but in the Turkish specimens, the inner claw is shorter than the outer claw.

Acknowledgments

This work was produced mainly from the material collected during scientific research project number FEN-A-140613-0026 supported by the Office of Erzincan University Scientific Research Projects (EÜBAP). This study is a part of the first author's PhD thesis.

References

Gabryś G (1986). *Camerotrombidium rasum* (Berlese, 1910) (Acari, Actinedida, Trombidiidae) nowy gatunek roztocza dla fauny Polski. Przegl Zool 30: 409–412 (in Polish).

Gabryś G (1996). Microtrombidiidae (Acari, Actinedida) of Poland. Ann Up Siles Mus Entomol 6–7: 145–242.

Gabryś G (1999). The world genera of Microtrombidiidae (Acari, Actinedida, Trombidioidea). Monogr Up Siles Mus 2: 1–361.

Halliday RB (1998). Mites of Australia: A Checklist and Bibliography. Monographs on Invertebrate Taxonomy. Vol. 5. Melbourne, Australia: CSIRO Publishing.

Mąkol J (2007). Generic level review and phylogeny of Trombidiidae and Podothrombiiidae (Acari: Actinotrichida: Trombidioidea) of the world. Ann Zool 57: 1–194.

Mąkol J, Wohltmann A (2012). An annotated checklist of terrestrial Parasitengona (Actinotrichida: Prostigmata) of the world, excluding Trombiculidae and Walchiidae. Ann Zool 62: 359–562.

Wohltmann A, Mąkol J, Gabryś G (2003). A description of the larva of *Camerotrombidium pexatum* (C. L. Koch, 1837) and *Camerotrombidum rasum* (Berlese, 1910) (Acari: Parasitengona: Microtrombidiidae) with notes on other active instars and remarks on biology and life cycle. Ann Zool 53: 539–549.