

First record of the genus *Retusigaster* Dangerfield, Austin & Whitfield, 1999 (Hymenoptera: Braconidae: Cardiochilinae) from the west Palaearctic region

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Abstract. The first record of the genus *Retusigaster* Dangerfield, Austin and Whitfield, 1999 from the West Palaearctic region is evidenced. It was represented by a single species, *Retusigaster eremita* (Kokujev, 1904) which is recorded for the first time from Turkey. Description of the diagnostic characters and the illustrations are given.

Key words: *Retusigaster eremita*, Cardiochilinae, Braconidae, Hymenoptera, fauna, West Palaearctic, Turkey.

The subfamily Cardiochilinae Ashmead, 1900 is a small and well-defined subfamily of Braconidae (Quicke & van Achterberg 1990, Whitfield & Mason 1994, Whitfield & Dangerfield 1997, Dangerfield et al. 1999, Mercado & Wharton 2003, Chen et al. 2004). Cardiochilinae are koinobiont endoparasitoids of lepidopteran larvae, mainly of Apatelodidae, Cosmopterigidae, Gelechiidae, Pyralidae, Noctuidae and Uraniidae, some of which are major pests of agricultural crops and forests (Huddleston & Walker 1988, Shaw & Huddleston 1991).

In the Palaearctic region, the subfamily Cardiochilinae Ashmead, 1900 is represented by sixteen genera: *Asiocardiochiles* Telenga 1955, *Austerocardiochiles* Dangerfield, Austin & Whitfield 1999, *Bohayella* Belokobylskij 1987, *Cardiochiles* Nees 1819, *Eurycardiochiles* Dangerfield, Austin & Whitfield 1999, *Gwenia* Dangerfield, Austin & Whitfield 1999, *Hansonina* Dangerfield 1996, *Hartemita* Cameron 1910, *Heteropteron* Brullé 1846, *Hymenicis* Dangerfield, Austin & Whitfield 1999, *Latitergum* Dangerfield Austin & Whitfield 1999, *Pseudocardiochilus* Hedwig 1957, *Psilommiscus* Enderlein 1912, *Retusigaster* Dangerfield, Austin & Whitfield 1999, *Schoenlandella* Cameron 1905 and *Toxoneuron* Say 1836 (Yu et al. 2012).

The genus *Retusigaster* was described by Dangerfield Austin & Whitfield in 1999 after a phylogenetic analysis of qualitative and morphological characters of several genera. *Retusigaster* was the sister group of *Hansonina* + *Psilommiscus* + *Toxoneuron* and can be distinguished by the following combination of characters: clypeal tubercles absent, galea broad and short, apical hind tibial projection absent, hypopygium short and obtuse at the apex, and the ovipositor and sheaths strongly down-turned, short and broad (Dangerfield et al. 1999). Although some studies have been conducted by various scientists on the subfamily Cardiochilinae, this subfamily is not well known in the Turkish fauna. Up to now, only four species of Cardiochilinae have been reported for the country: *Cardiochiles saltator* (Fabricius 1781), *C. fallax* Kokujev 1895, *C. kasachstanicus* Tobias & Alexeev 1977 and *C. pseudofallax* Telenga 1955 (Fahringer 1922, İnanç & Beyarslan 1994, Capek & Hofmann 1997, İnanç 2002). This investigation of the braconid parasitoid wasps allowed revealing for the occurrence of the genus *Retusigaster* from the West Palaearctic Region, represented by a single species from Turkey.

This study is based on specimens collected from Sivas Central Anatolia, Turkey. The material was sampled in 2002. The sample was collected using sweeping nets and transferred into a hand-made aspirator and was killed by a 70% alcohol solution. The study of exter-

nal morphology was done using a Nikon SMZ800 stereomicroscope. Reliable keys developed by Tobias (1986, 2000) were used for identification of specimens. The hand drawings and measurements were prepared according to the photographs captured by using a camera lucida attached to the stereomicroscope. The abbreviations follow those of Yu et al. (2012). The following abbreviations are used in the text: OOL= ocular-ocellar line, POL= postocellar line, OD= maximal diameter of lateral ocelli. The specimen is deposited in the Zoological Museum of the Department of Biology of the Trakya University (ZMTU).

Retusigaster eremita (Kokujev, 1904) (Figs 1-5)

Cardiochiles eremita Kokujev, 1904. Hymenoptera asiatica nova V. Revue Russe d'Entomologie. 4: 213-215

Material examined: Turkey, Sivas-Cumhuriyet University Campus, 39°N 37°E, 1278 m., 18.vi.2002, 1♀, (leg.: H. H. Başibüyük).

Description. Female.

Body length 6.0 mm; antenna 6.5 mm; fore wing 5.0 mm; mesosoma 2.5 mm; metasoma 2.8 mm.

Head. In dorsal view, 2.26 times as wide as long, 1.27 times as wide as mesoscutum, smooth, with rounded temples behind eyes. Eye in lateral view 1.78 times as high as wide and as wide as temple. Eyes in dorsal view very slightly emarginate about antennal sockets. Occipital carina absent. POL 1.6 times OD; OOL 3.0 times OD. Face 0.55 times as high as wide; inner margins of eyes subparallel. Clypeus 1.57 times as wide as high, weakly concave ventrally, clypeal tubercles absent. Mandible widened towards base. Antenna 45-segmented, twice long as the combined length of head and mesosoma. Scape 1.25 times as long as pedicel. First flagellar segment 1.6 times as long as its apical width, 1.14 times as long as second segment. Second flagellar segment 1.4 times as long as its maximum width.

Mesosoma. In lateral view, 1.44 times as long as high. Mesoscutum 1.36 times as long as wide. Notauli deep, crenulate, reaching near prescutellar depression. Mesoscutal prescutellar depression ellipsoidal, with five carinae. Scutellum smooth. Precoxal sulcus deeply depressed, somewhat wrinkled, reaching with anterior and posterior edge of mesopleuron. Posterior mesopleural suture crenulate. Propodeum strongly sculptured. Propodeal spiracles small.

Legs. Hind femur 3.13 times as long as wide. Hind tibia weakly widened to apex, 4.5 times as long as its maximum apical width. First segment of hind tarsus 3.23 times as long as second segment.

Wings. Length of fore wing 2.63 times its maximum width. Second radio-medial cell 2.8-3.0 times as long as

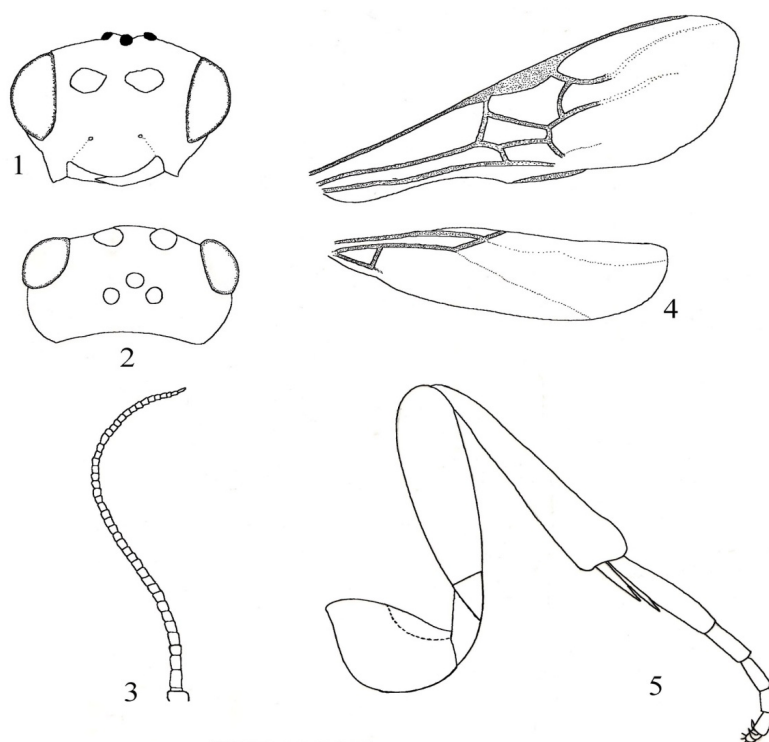


Figure 1-5. *Retusigaster eremita* (female): 1 - head in frontal aspect; 2 - head in dorsal aspect; 3 - antenna; 4 - wings; 5 - hind leg. [Scale 1 mm for Figure 1, 2; 0.76 mm for Figure 5, 0.54 mm for Figures 3, 4].

wide. Stigma 2.8 times as long as wide. Vein r1 emerging from posterior part of stigma. Radial cell short, not reaching to apex. Brachial cell open. Hind wing 3.3 times as long as its maximum width.

Metasoma. First tergite 0.8 times as long as its apical width, mainly smooth. It is concave in the middle side and convex in lateral sides. Second tergite as long as third tergite, without oblique grooves and central field, 2.75 times as wide as long. Ovipositor short, distinctly pointed apically.

Colour. Body and legs black, fore and middle legs orange except their black coxae, hind femur orange, apices hind tibia and hind tarsus black. Wings hyaline. Pterostigma brown.

Male. Unknown

Distribution. Kazakhstan, Mongolia, Turkmenistan (Yu et al. 2012), Turkey (new record).

Remarks. The genus *Retusigaster* is known from only eight species: Seven species of *Retusigaster* are known from the Nearctic, whereas *Retusigaster eremita* (Kokujev, 1904) has until only been recorded in Eastern Palaearctic. This study presents here the first record of *R. eremita* (Kokujev, 1904) from West Palaearctic region. It was founded in Central Anatolia region in Turkey.

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