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## **The first record of *Trachionus mandibularis* (NEES 1816) (Hymenoptera: Braconidae: Alysiinae) in Turkey**

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**A b s t r a c t :** In this study the *Trachionus mandibularis* (NEES 1816) is given as a new record for Turkey from Afyon and Kırklareli located in the western part of Turkey.

**K e y w o r d s :** *Trachionus mandibularis*, Hymenoptera, Braconidae, first record, Turkey.

### **Introduction**

*Trachionus* HALIDAY is the genus of subfamily Alysiinae (jaw-wasps). The Alysiinae is characterized, among Braconidae, by their so-called "exodont" mandibles, which means that the mandibles are turned outwards with a strongly developed abductor muscle which provides them with powerful outward movements. Traditionally this subfamily has been divided into the tribes Alysiini (3-celled jaw-wasps) and Dacnusiini (2-celled jaw-wasps). The latter lack the 2 r-m vein (DOCAVO et al. 2002; FISCHER et al. 2004).

The species of *Trachionus* are recognized by the roughly equally developed four-toothed mandibles, or by the metanotum in middle with denticle. All known species of this genus are koinobiont endoparasitoids of cyclorhaphous Diptera and they lay their eggs into the egg of the host (SHAW & HUDDLESTON 1991).

The Palaearctic species of the genus *Trachionus* were keyed (TOBIAS et al. 1986), the author reported a total of 6. Actually, a total of 13 species of *Trachionus* have been reported in the world and 7 species are found in the Palaearctic region (YU et al. 2006). *Trachionus mandibularis* is the first record of the genus from Turkey.

### **Material and Methods**

Adult specimens of *T. mandibularis* NEES were collected from provinces Afyon and Kırklareli of western Turkey. Sweeping nets were used to obtain samples on grass-type plants. Collected samples were then pinned and labelled according to taxonomic rules and regulations. The specimens are deposited in the collection of the Zoological Museum of the Department of Biology, Trakya University, Edirne, Turkey.

References are used for known distributions and hosts of the species in the world YU et al. (2006). The specimens were identified using the key in TOBIAS et al. (1986) and *T. mandibularis* was described and its diagnostic characters were illustrated in 7 figures.

## Results

### Genus *Trachionus* HALIDAY 1833

#### *Trachionus mandibularis* (NEES 1816)

**Description:** Male. Body color: Dark brown, legs reddish yellow. Wing membrane subhyaline, pterostigma and veins brown. Body length: 3.2 mm. Fore wing length: 2.4 mm. Antenna length: 2.6 mm. Mesosoma length: 1.3 mm. Metasoma length: 1.5 mm.

**Head.** Ratio length: width: height of head 18: 35: 27; width of head 1.9 times of its medial length. Temples slightly narrowed behind eyes. Vertex smooth, setose. Ocelli almost positioned in equilateral triangle; ratio of POL: OD: OOL= 4: 3: 6; eye bare, longitudinal diameter of eye 1.3 times its transverse diameter. Length of malar space 1.3 times basal width of mandible and 0.3 times longitudinal diameter of eye. Width of face 1.8 times height of face. Face punctuate, setose. Clypeus narrow. Labium extended and setose. Mandibles with 4 denticles. Palps reddish yellow. Occipital carina invisible. Antenna 1.08 times as long as length of fore wing, with 28 segments, length of third segment 1.2 times fourth segment, length of third, fourth and penultimate segments 3.0, 1.6 and 1.5 times of their widths, respectively. Last antennal segment pointed.

**Mesosoma.** Length of mesosoma 1.3 times its height, pronotum medially rugose, laterally rugose punctuate, glabrous; mesonotum, scutellum and metapleuron coarsely punctuate and setose; notauli distinct and coarsely punctuate; mesopleuron smooth, glabrous; sternaulis distinct, scutellar sulcus almost visible, metanotum in middle with denticle, surface of propodeum rugose punctuate.

**Wings.** Fore wing: length of pterostigma 3 times its maximal width; vein cu-a postfurcal; vein m-cu antefurcal; vein 1-SR+M curled. Hind wing: 1-M as long as 1r-m; R1 very long.

**Legs.** Hind coxa smooth, ratio of femur, tibia and basitarsus of hind leg= 24: 27: 11, length of femur, tibia and basitarsus of hind leg 3.0, 5.4, 3.6 times their width, respectively; length of hind tibial spurs 0.4 times hind basitarsus; tibia and tarsus densely and femur sparsely setose.

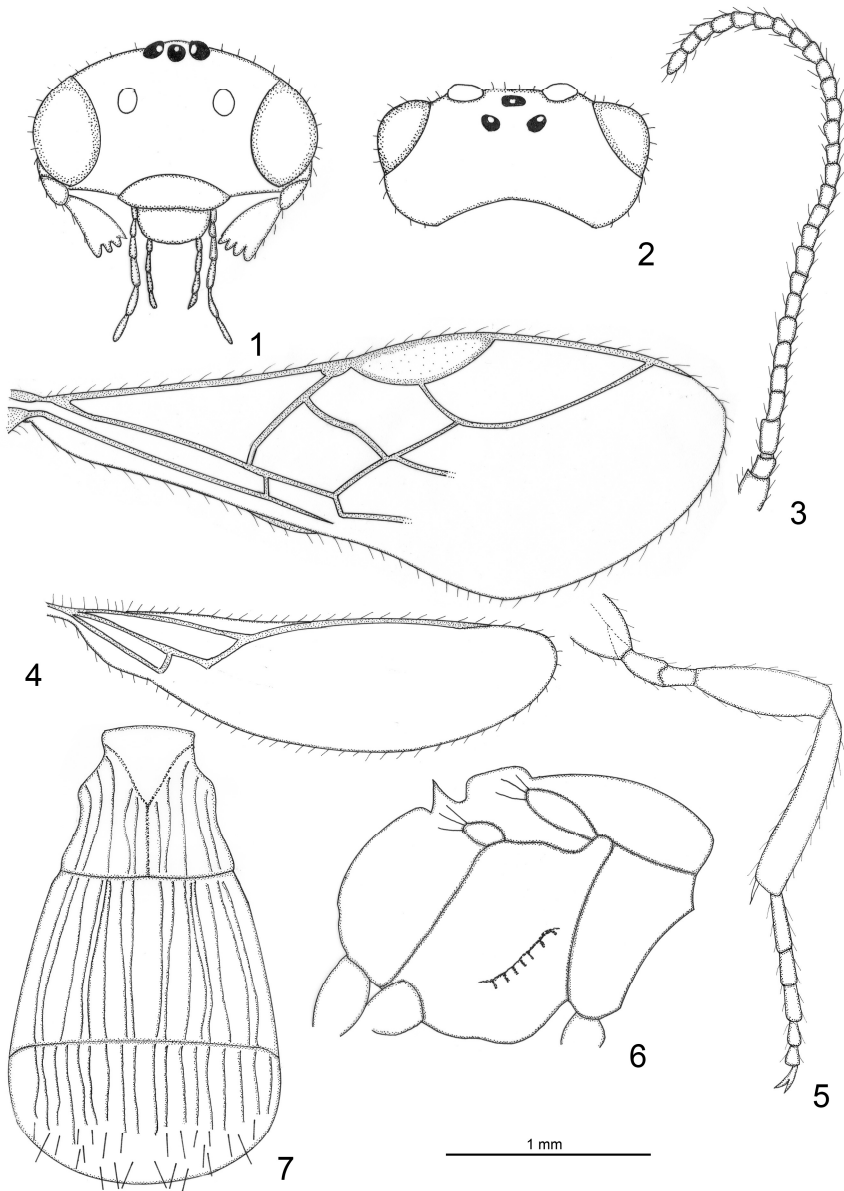
**Metasoma.** Forms half carapace. Length of first tergite 0.7 times its apical width. First metasomal tergite basally with triangular area. 2<sup>nd</sup> and 3<sup>rd</sup> metasomal tergites distinctly developed and robust. Metasoma entirely longitudinally rugose punctuate and setose.

**Material examined:** Afyon-Bolvadin-Kapaklı (h: 1250 m), 38° 42' 40N/31° 02' 55E, 29.vi.1998, 1♂; Kırklareli-Vize-Kömürköy (h: 198 m), 41° 38' 00N/27° 53' 00E, 16.vi.2001, 1♂.

**General Distribution:** Palaearctic: Belgium, Bulgaria, former Czechoslovakia, Denmark, France, Germany, Hungary, Ireland, Japan, Korea, Moldova, Mongolia, Netherlands, Poland, Russia (Khabarovsk Krai, Primor'ye Krai, Sakhalin Oblast), Slovakia, Sweden, Switzerland, United Kingdom.

**Hosts:** Parasitoid of Diptera: *Dizygomyza* sp. *Phytobia cerasiferae* (Agromyzidae).

New record for Turkey.



**Figs 1-8:** *Trachionus mandibularis* (NEES 1816): (1) head frontal; (2) head dorsal; (3) antenna; (4) wings; (5) hind leg; (6) mesosoma lateral; (7) carapace dorsal.

