

***Eubazus (Brachistes) aydae* sp. nov. from Turkey (Hymenoptera: Braconidae: Brachistinae)**

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ABSTRACT

During the studies on the Turkish Braconidae, a new species *Eubazus (Brachistes) aydae* sp. nov. from the Turkish Thrace and Central Anatolia region was recorded. New species was described, its morphological diagnostic characters were illustrated and it was compared with the related species *Eubazus (Brachistes) gallicus* (Reinhard, 1867).

Key words: Braconidae, Brachistinae, *Eubazus*, new species, Turkey

INTRODUCTION

Eubazus Nees, 1814 is a large genus including moderately small to large wasps with about 195 described species worldwide, but is most diverse in the northern hemisphere and South America (Yu *et al.* 2006). The Turkish fauna of *Eubazus* Nees, 1814 is unknown. Only *Eubazus (Allodorus) semirugosus* (Nees, 1816) was recorded by Nees from Turkish forest protection research, in mass production of *Ips sexdentatus* Börner in areas of the orientalish spruce (Schimitschek, 1940).

The species of *Eubazus* (Nees, 1816) are koinobiont endoparasitoids of predominantly Curculionidae larvae. At least part of the species lay their eggs inside host eggs or in very young larvae and develop internally when the larva is full-grown and have a final ectoparasitic phase (= ovo-larval parasitoid) (van Achterberg & Kenis, 2000).

MATERIAL AND METHODS

Adult specimens of Braconinae were collected from various habitats of Turkey between 1980 and 2009, to determine the Braconidae fauna of Turkey. Sweeping nets were used to obtain samples on grass-type plants. Relevant literature (van Achterberg, 2000; 2003; Belokobylskij & Tobias, 1998; Papp, 2007; Tobias, 1986) were used for taxonomical examination and identification of the specimens. Type material are deposited in the collection of the Biology Department of Faculty of Science, University of Trakya.

The definitions, ratios and abbreviations follow those of van Achterberg (1993). The following abbreviations are used in the text: OOL= ocular-ocellar line, POL= postocellar line, OD= maximal diameter of lateral ocelli.

Figures of the new species were drawn and measurements were taken using a camera lucida attached to a Stereomikroskop/ Nikon SMZ800

RESULT

Eubazus aydae sp. n. Beyarslan (Figs 1- 6)

Description. Female (holotype). Measurements: Body length 2.5 mm, antenna 2.3 mm, fore wing 2.3 mm, hind wing 2.0 mm, hind leg 3.6 mm, mesosoma 1.1 mm, metasoma 1.0 mm, ovipositor sheath 2.9 mm.

Head. Width of head 1.85 times its median length. Head behind eyes (dorsal view) distinctly and weakly-roundly narrowed. Transverse diameter of eye almost as long as s temple (dorsal view). Ocelli small, POL 3.0 times OD and 0.6 times OOL, stemmaticum distinctly wider posteriorly than laterally. Eye bald, very weakly emarginated opposite of antennal sockets, 1.5 times as height as width. Malar space height 0.6 times height of eye, 2.0 times basal width of mandible. Face with weak and rather wide median vertical convex area in upper half. Face width 1.1 times longitudinal diameter of eye, 1.5 times height of face and clypeus combined. Anterior tentorial pit oval, deep, its transverse width 0.3 times as long as distance from edge of depression to eye, inter tentorial line usually 0.5 times as long as tentorio-ocular line. Occipital carina fuse ventrally with hypostomal carina upper base of mandible. Vertex weakly convex. Head below eyes weakly narrowed (frontal view) (Fig. 1). Mandibles 2-dentate. Clypeus and mandibles do not touch, an oval shallow oral gap developed between them. Maxillary palpi almost half as long as height of head. Antenna densely bristly setose, 24-segmented, and 0.8 times as long as body; basal segments filiform, but subapical segments moniliform, petiolate. Length of scapus 1.8 times its maximum width. First flagellomere 3.6 times as long as its apical width and as long as second flagellomere. Penultimate segment as long as width, 0.3 times as long as first flagellomere, 0.5 times as long as apical segment; the latter pointed apically (Fig. 2).

Mesosoma (Fig. 3). Length of mesosoma 1.4 times its height. Pronotum anteriorly weakly convex (dorsal view), almost straight dorsally (lateral view), pronotum sculptured, propleuron very finely longitudinally sculptured. Mesoscutum highly and roundly raised above pronotum. Notauli rather deep, sparsely and finely crenulate. Median lobe of mesoscutum without anterolateral shoulder and median furrow. Prescutellar depression deep, rather long, smooth, with 4 coarse carinae and as long as scutellum. Scutellum distinctly convex. Sternauli missing. Subalar depression deep, rather narrow, smooth. Metanotum with a tubercle directed almost vertically. Metapleural lobe long, rather wide, rounded apically, with very sparse numerous white setae and fine sculptured. Pleural carina distinct and smooth. Propodeum smooth and with a transverse median carina.

Wings (Figs 4). Fore wing: Length of fore wing 2.6 times its maximum width and as long as body; anterior margin of marginal cell shortened and 0.7 times as long

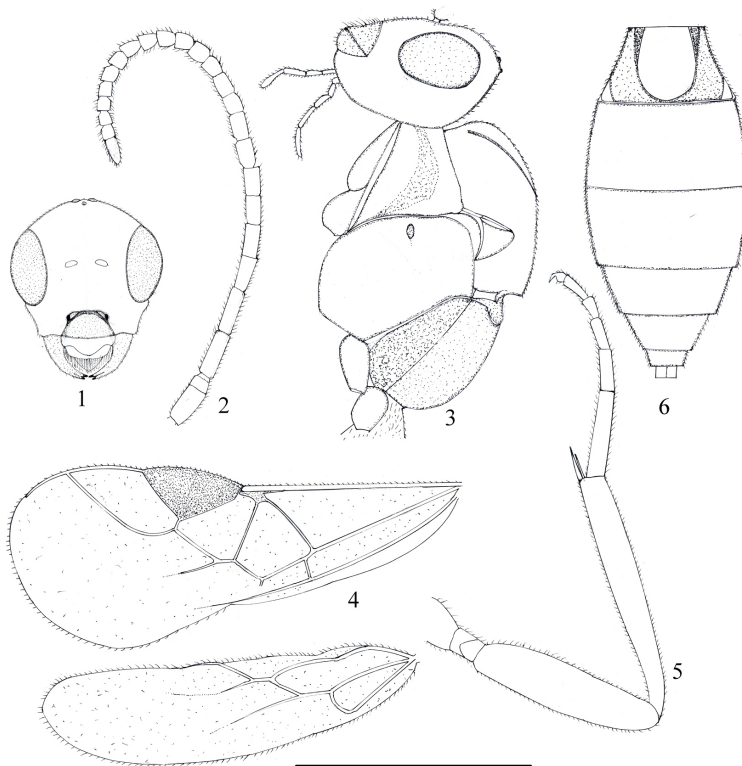
as pterostigma; metacarpus 1.25 times as long as pterostigma; radial vein arising from beyond of basal of pterostigma and throughout sclerotized, first discal cell distinctly truncate; nervulus (nv) postfurcal, not widened, M+CU1 straight; recurrent vein antefurcal, half as long as first cubital abscissa; posterior abscissa of longitudinal anal vein (behind brachial vein) distinct and straight.

Hind wing: 2-M slightly sinuate; ratios of cu-a . 1- m : 1r-m: 2-SC+R: SC+R1= 7: 10: 8: 7: 10; Cu-a interstitial.

Legs. Ratios of femur : tibia : basitarsus: tarsus of hind leg= 41: 60: 20: 45. Hind femur 4.0 times as long as maximum width. Hind tibial spur 0.3 times as long as basitarsus. Tibiae and tarsi pubescent (Fig. 5).

Metasoma (Fig. 6). Smoot, first metasomal tergite 0.6 times as long as its apical width, median length of second tergite about half as long as its apical width and as long as median length of third tergite. Second suture distinct but narrow rather shallow, smooth and straight. Ovipositor sheath 2.9 times as long as metasoma.

Colour. Black; only legs, mandibles, clypeus, maxillary palps, labial palps and Ovipositor sheath yellow; wing membrane clear brown; pterostigma brown and veins brownish-yellow.



Figs. 1-6. (female), 1) head in frontal view, 2) antenna, 3) mesosoma and head in lateral view, 4) wings, 5) hind leg, 6) metasoma. Scale 0.9 mm (Figs. 1, 2, 3), 1.2 mm (Figs. 4, 5), 0.7 mm (Fig. 6).

Male: Unknown.

Material examined. Holotype: Female - Edirne, Lalapaşa, Büyükdöllük, (40° 32' 06" N, 38° 21' 17" E), (Subeuxin province with *Quercus* spp., *Trifolium* spp. *Populus* spp. *Species of Triticum* spp.), 50 m a.s.l., 31.VIII.1991, leg. F. Inanç.

Paratypes. Female - Kastamonu, Ilgaz Mountain, Çatören, (41° 7' 60" N, 33° 47' 60" E), Euxin province with mixed forest: *Pinus* sp., *Salix* sp. and *Umbellifera*, dominant 3.VII.2001, 1280 m a.s.l., leg. M.Yurtcan. Female - Kayseri, Bünyan, Male, (38° 39' 42" N, 36° 03' 30"E), Kseroeuxin province with *Trifolium* spp., *Populus* spp., *Salix* spp., *Triticum* spp., 12.VII.2007, 1424 m a.s.l., leg. E. Çoban.

Differential diagnosis. *Eubazus (Brachistes) aydae* sp. n. is related to *Eubazus (Brachistes) gallicus* (Reinhard, 1867). These two species can be separated by the combination of following characters:

1(2). Clypeus and mandibles open; between clypeus and mandibles an oval oral gap developed (Fig. 1). Antennae 24-segmented, thier segments in apical third transverse. Femura yellow. Ovipositor sheath longer than body (1.16 times). Length of body 2.5 mm. *Eubazus (Brachistes) aydae* sp. n.

2(1). Clypeus and mandibles closed, between clypeus and mandibles an oval oral gap not developed. Antennae 26-segmented, thier segments in apical third transverse. . Femura darkened. Ovipositor sheath shorter than body. Length of body 3.5- 4.0 mm. *Eubazus (Brachistes) gallicus* (Reinhard, 1867)

Etymology. The specific name refers to the child Ayda, who gives me invaluable enjoyment in my life.

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