

COTESIA PAPPI SP. N. (HYMENOPTERA, BRACONIDAE:  
MICROGASTRINAE) FROM TURKEY

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A new species of the genus *Cotesia* CAMERON, 1891, *C. pappi* sp. n., is described and illustrated from Turkey. *C. pappi* sp.n., is compared to *Cotesia errator* (NIXON, 1974).

Key words: *Cotesia*, Microgastrinae, Braconidae, new species, Turkey

INTRODUCTION

*Cotesia* CAMERON, 1891 is the most common and ubiquitous genus of Microgastrinae, probably comprising 1500–2000 species. The genus of *Cotesia* is one of the largest and most difficult groups of the subfamily (NIXON 1974). Although most species of this genus are gregarious as larvae, about one quarter is solitary. The genus *Cotesia* CAMERON, 1891 differs from other Cotesini genera by having propodeum mostly rugose, and usually with a median and a short carina (MASON 1981).

Traditionally, the majority of Microgastrinae species has been placed in *Apanteles* by MARSHAL (1885) and MUESEBECK (1920). MASON (1981) split up the genus *Apanteles* FOERSTER into a series of genera. The *glomeratus* species-group is identical with the generic conception of *Cotesia* CAMERON, 1891. MASON (1981) treated this genus also in this comprehension.

MATERIAL AND METHOD

Three females were collected from Gullapoglu Arboretum of Trakya University, Edirne. Covering an area of 16 hectares, situated at an altitude of about 41 m. The most common vegetations occurring in this area are Leguminosae, Euphorbiaceae and Compositaceae. While, *Ulmus minor* MILLER, *Acer tataricum* LINNÉ and *Salix alba* LINNÉ are the other species of secondary importance.

The definitions, ratios and abbreviations in this article follow that of PAPP (1986, 1987, 1988), NIXON (1974) and ACHTERBERG (1993). The following abbreviations are used in the text: OOL= ocular-ocellar line, POL= post ocellar line, LOL= lateral ocellar line. Figures were drawn and measurements taken using a camera lucida attached to a stereomicroscope.

**Cotesia pappi** sp. n. ♀  
(Figs 1–6)

Material examined (3 ♀♀): Female holotype and two paratypes: “Turkey, Edirne, Gullapoglu Arboretum of Trakya University, 41m, 20.V.2001,” holotype leg. A. ALADAG (TU), paratypes: 2 ♀♀, leg. S. YILMAZ (TU).

Holotype and two paratypes are deposited in the Zoological Museum of Department of Biology, Trakya University (TU), Turkey.

Etymology: Named in honour of Dr. JENŐ PAPP, excellent Hungarian specialist of Braconidae (Hymenoptera).

Description of the female holotype. – Length of body 2.6 mm. Head in dorsal view 2.1 times broader than long (Fig. 1). Temple 0.9 times broader than eye. OOL 0.8 times longer than POL and POL 3 times longer than LOL. Head in frontal view 1.27 times broader than its height. Lateral view of eye 1.8 times as high as wide. Cheek about 1.3 times longer than basal width of mandibles. Occiput almost smooth. Frons and vertex with very superficial fine punctation, subshiny. Antenna 21.1 times longer than first flagellomere and penultimate flagellomere just longer than broad (Fig. 2). Scape 0.6 times of its height.

Mesosoma: Length of mesosoma 0.69 times of its height. Mesonotum densely and deeply punctuated, subshiny. Notaulices densely, crowded punctated and dull. Scutellum shiny, anteriorly almost smooth, posteriorly superficial and sparsely punctated. Scutellar sulcus crenulated, its crenulae medially sparated. Mesopleuron shiny, smooth and rugulose basally. Precoxal suture crenulated. Propodeum subshiny, carinated and reticulate.

Legs: Inner side of hind coxa finely rugulose, outer side shiny, almost smooth, upper side with crowded punctation. Ratio of femur : tibia : basitarsus of hind leg: 27: 33: 16. Pair of spurs of hind tibia equal in length and hind tibial spurs about one-third as long as basitarsus (Fig. 3).

Wings: Fore wing (Fig. 4). Length of fore wing 0.75 times longer than body. Pterostigma 2.3 times as long as wide. Metacarp 0.9 times as long as pterostigma. Vein r 1.1 times as long as 2-SR. 2-CU1 twice longer than 1-CU1. Discal cell 0.6 times longer than its height. Nervellus of hind wing just not straight. Vannal lob faintly convex (Fig. 5).

Metasoma: Length of metasoma 1.7 times longer than its height. First tergite 1.36 times longer than broad. First tergite almost smooth anteriorly and very shiny, but posteriorly rugose and subshiny. Second tergite similarly rugose than first tergite. Third tergite anterio medially slightly rugulose, shiny (Fig. 6). Hypopygium truncate, ovipositor sheath very short and concealed.

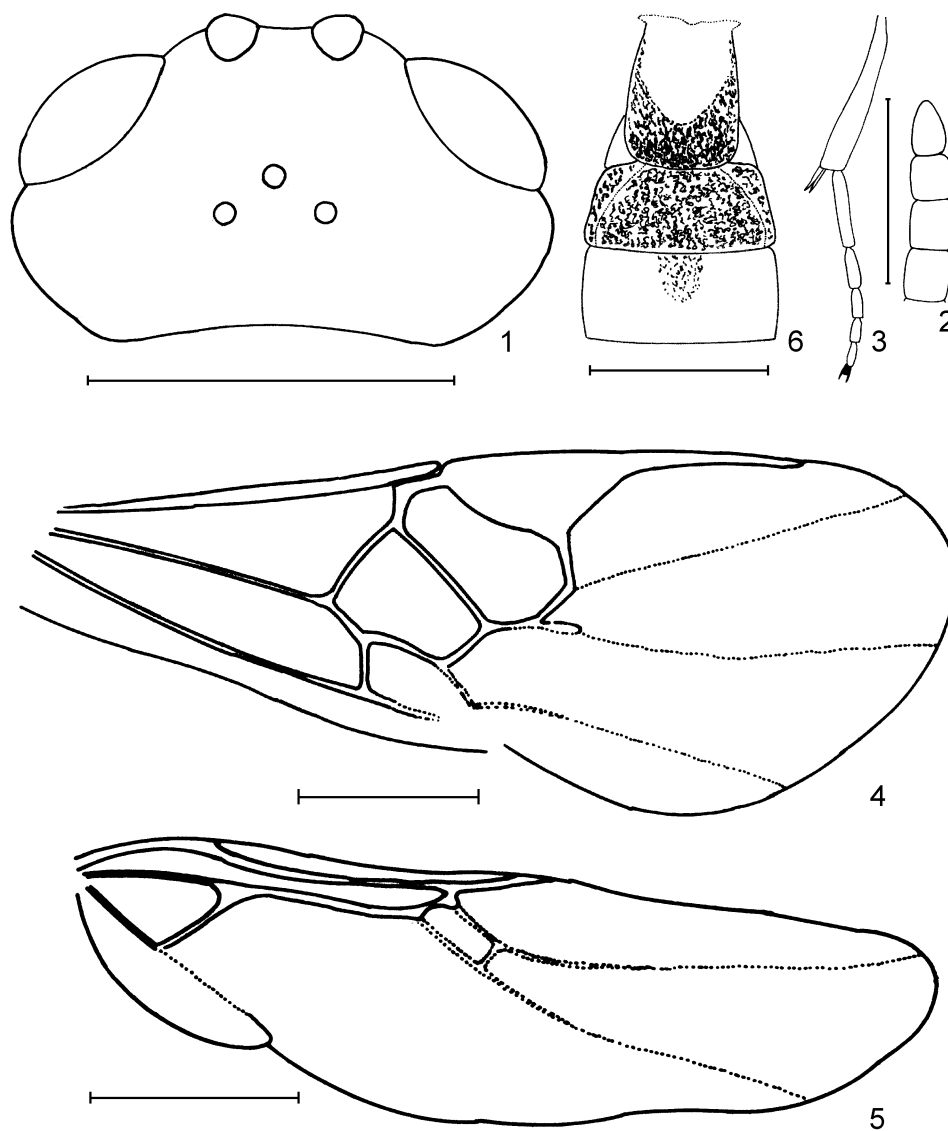
Colour: Body black. Stigma and veins brown. Tegula blackish brown. First and second tarsus dark brown, third tarsus brown.

Description of the two female paratypes. – Similar to the female holotype. Body 2.6–2.7 mm long (1 ♀: 2.6, 1 ♀: 2.7). Hind femur blackish (1 ♀), Second tarsus blackish brown (2 ♀♀).

Male and host unknown.

Distribution: Turkey.

The new species, *Cotesia pappi*, is nearest to *C. errator* (NIXON, 1974) considering their third tergite anteriorly rugulose-rugose, third tergite hardly longer



**Figs 1–6.** *Cotesia pappi* sp. n.: 1 = head in dorsal view, 2 = 15–18th joints of antenna, 3 = hind tibia and tarsal joints, 4 = fore wing, 5 = hind wing, 6 = basal tergite. Scale bar 0.5 mm

than second tergite, hind femur black or blackish and inner spur of hind tibia as long as outer one; the two species are differentiated by the following features keyed:

- 1 (2) Penultimate joints of flagellum 1.2–1.3 times as long as broad. Scutellum subshiny, punctation equally fine, indistinct. Notaulices almost not indicated except as faint furrow. Mesonotum dull, finely punctated. Hind coxa evenly smooth, shiny. ♀: 3.2–3.4 mm *C. errator* NIXON
- 2 (1) Penultimate joints of flagellum a little longer than broad. Scutellum shiny, anteriorly almost smooth, posteriorly superficially sparsely punctate. Notaulices with closely crowded punctation, dull. Mesonotum densely, deeply punctated. Outer side of hind coxa shiny, almost smooth, upper side with crowded punctation. ♀: 2.6–2.7 mm **C. pappi** sp. n.

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