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A new species *Meteorus arabica* sp. nov., (Hymenoptera: Braconidae), from Saudi arabia

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ABSTRACT

Meteorus arabica sp. nov., (Hym., Braconidae) is described from Saudi Arabia. Morphological diagnostic characters of the new species are figured, and they are compared with those of the related species. The genus *Meteorus* Haliday, 1835 is reported for the first time from Saudi Arabia.

Keywords: *Meteorus*, Braconidae, new species, Saudi Arabia.

INTRODUCTION

The genus *Meteorus* Haliday, 1835 belongs to the subfamily Meteorinae of family Braconidae. Members of the genus *Meteorus* are solitary or gregarious koinobiont endoparasitoids of the larvae of Coleoptera and Lepidoptera. This genus has broad host ranges (Achterberg, 1990; Shaw & Huddleston, 1991; Shaw *et al*., 1995; Shaw *et al*., 1997; Shaw & Nishada, 2005 Maeto, 1990). Haliday (1835) erected the genus *Meteorus* with its type species *Ichneumon pandulator* Latreille. It is a cosmopolitan genus characterized by the maxillary palpi six segmented, forewing vein SRI usually long and straight, tergal setae in single rows. The taxonomy of the genus dealt with by Nixon (1943), Muesbeck (1923, 1939), Huddleston (1980, 1983), Maeto (1990). It includes 288 species from all over the world (Yu. *et al*. 2005). In this paper one new species viz., *Meteorus arabicus*, sp.nov, is described and illustrated with help of photographs.

MATERIAL AND METHODS

Specimens were collected by sweeping net and malaise traps from different regions of Khamis Mushait, Saudi Arabia. The samplings were conducted through 2011 in Asir province. The collected specimens were killed with ethyl acetate and mounted on triangular points, then were examined with a stereoscopic binocular microscope Nikon SMZ1200. Classification, nomenclature and distributional data of the family Braconidae suggested by Yu *et al.* (2006) have been followed. The terminology for morphology follows that used by Achterberg (1993).
Abbreviations used in the text are:
R: Radius;
r: Transverse radial vein;
SR1: First sectio radii;
2-SR: Second sectio radii;
3-SR: Third sectio radii;
M: Media;
r-m: Transverse radio-medial vein;
M+CU: Medio-cubital vein;

POL: Postocellar line;
OD: Maximum diameter of ocelli;
OOL: Ocelo-ocular line.
The types of new species are deposited in the Department of Zoology, college of science King Khalid University, Abha, KSA.

RESULTS

Description,
Meteorus arabicus sp. nov.
Female: Body length, 3.1mm; Forewing: 2.6mm
Colour: Black except middle flagellomere, clypeus, wing veins yellowish brown; maxillary palpi, pterostigma and legs, brownish yellow, ocelli transparent.
Head: Head in dorsal view 1.61x as wide as long; occipital carina complete; OOL: POL: AOL: OD =5: 2: 1: 1; length of eye in dorsal view 1.61x the length of temple; eyes not convergent; vertex 2.0x as long as wide, sparsely punctate with hairs; frons 2.20x as long as wide and smooth; face 2x as wide as long, punctate with hairs; clypeus strongly convex, 2.01x as wide as long, smooth; malar space 1.22x basal width of mandible, mandibles small, twisted; antenna comprising 31 flagellomeres; scape 1.5x as long as wide; pedicel as long as wide; length of F1 as long as wide; apical flagellomere pointed.
Mesosoma: Length of mesosoma 1.9x its height and 2.3x its width; pronotal side dorsally crenulate and laterally ruglose; precoxal sulcus wide, crenulate; mesopleuron antero-dorsally reticulate coriaceous, medially smooth; notauli narrow, anteriorly crenulate, posteriorly reticulate rugose with small longitudinal carina; lateral lobes of mesoscutum smooth, middle lobe sparsely punctate with hairs; scutellum convex to slightly flate, smooth, sparsely setose; scutellar sulcus narrow with one median longitudinal carina; side of scutellum reticulate-coriaceous; medio-posterior depression oval shaped with a median longitudinal carina; propodeum irregularly reticulate-rugose, not impressed postero-medially.
Wings: Forewing 2.9x as long as wide; pterostigma 4.1x as long as wide; length of vein 1-R1 1.75x length of pterostigma; vein SRI slightly curved; r arising behind middle of pterostigma, 0.5x width of pterostigma; r: 2-SR: SR1+3-SR-2: 8:32; m-cu and cu-a postfurcal; hindwing 3.8x as long as wide; l-M: 1-r-m: 2-SC+R= 8: 8: 5.
Legs: Hind coxa rugose; length of hind femur, tibia, basitarsus 5 x, 8.2x and 8x their widths respectively; length of hind tibial spurs 0.25x and 0.37x hind basitarsus, tarsal claw simple.
Metasoma: Length of metasoma 4.0 x its width and 3.0x its height; length of first metasomal tergite 2.3x its apical width, apical width 2.7x its basal width; gradually widened from base to apex; spiracles behind middle of first metasomal tergite, its surface longitudinally striate, elsewhere smooth; remaining tergites smooth; ovipositor sheath longer than first metasomal tergite, ovipositor curved downwards.
Male: Unknown.
Distribution: Saudi Arabia: Asir region, Khamis Mushyat.
Host: Unknown
Holotype: Female (points), 27.VI.2011, Khamis Mushyat, Asir region, Saudi Arabia, leg. Hamed, (Malaise trap).
Paratypes: 4 females (pointed mounted) with same data as holotype. All the material is housed in Museum collection, Department of Biology, college of science. King Khalid University, Abha.

Etymology: The species name is derived from its type locality.
Discussion: The new species *Meteorus arabicus* sp. nov. resembles with the species *M. achtebergi* Huddleston (1983). However, it differs from *M. achtebergi* in having (1) Antenna 31 segmented (Antennal segments 35-39 in *M. achterbergi*) (2) Precoxal sulcus wide and crenulate (Precoxal sulcus narrow and foveolate in *M. achterbergi*) (3) Hind, coxa rugose and setose (Hind coxa smooth, punctate in *M. achterbergi*) (4) Malar space 1.22x basal width of mandible (Malar space about equal to basal width of mandible in M. achterbergi) (5) Eyes 1.61x length of temple in dorsal view (Eyes 2-2.5x length of temple in *M. achterbergi*).

Fig. 1: Female fore wing

Fig. 2: Female habitus

Legends:
Meteorus arabica sp. nov., (holotype, female)**.**

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