

Research Article

Remarkable Description of a New Species of *Apocryptus*, 1932

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Abstract: The genus *Apocryptus* was established by Uchida in 1932 for the species *Apocryptus issikii*. The genus is distinguished by truncate apical margin with a pair of tubercles at the middle. The genus is known by two species viz., *Apocryptus tikari* Gupta & Gupta, 1983 and *Apocryptus flavofacies* Gupta & Gupta, 1983 from India. A new species of *Apocryptus*, *Apocryptus indicus* is described from India as a key for identification.

Keywords: *Apocryptus*, Uchida, *Indicus*, *Flavofacies*.

Introduction

Taxonomy is the major achievement of biology. It is the fundamental aspect of any new species. Considering this aspect present study has been designed to the remarkable description of new species of *Apocryptus*.

Taxonomy

Apocryptus Uchida, 1932

Apocryptus Uchida, 1932. *J. Fac. Agri. Hokkaido Imp. Univ.*, 33: 170.

Type species: *Apocryptus issikii* Uchida

Key to species of *Apocryptus*

1. Apical transverse carina of propodeum completely absent but with faint crests. Prepectal carina reaching the base of subtegular ridge. First tergite sparsely to shallowly punctate in the middle. Thorax and propodeum brownish at sides. Scutellum and metascutellum yellow. Face with two black lines.....*Tikari* Gupta & Gupta (1).
- Apical transverse carina of propodeum complete or absent in the middle. Colour of thorax may be various. Thorax largely black with yellow or

brownish marks; or propodeum and metapleurum orange.....2

2. Metapleurum finely striate. Propodeum laterally between apical and basal transverse carinae strongly obliquely rugose, towards apex smooth. Mesopleurum in front of speculum strongly striate. Hind leg largely black*Flavofacies* Gupta & Gupta.
- Metapleurum shallowly punctate. Propodeum laterally between apical and basal carinae weakly rugose. Area apically with a few longitudinal rugae or ridges. Mesopleurum largely striato-punctate. Hind leg largely dark orange.....*Indicus* sp.nov.

Description: Body moderately slender to large. Clypeus with apical margin truncate and with a weak pair of tubercle or irregularities at the middle. Mandible with more or less equal teeth. Frons without a horn or median carina. Epomia long and strong. Notaulus deep and long, sternaulus sharp and reaching 0.65 the distance to middle coxa. Juxtacoxal carina present. Pleural carina and basal and apical transverse carinae of propodeum complete and strong; the apical carina forming a weak to moderately strong sublateral crest, carina variable, complete or absent medially. Propodeal spiracles oval or elongate-oval. Areolet in forewing approximately square, about 0.65 as high as length of second recurrent vein. Nervulus opposite basal vein. Nervellus intercepted at its lower 0.2 to 0.4. First abdominal tergite moderately long to slender, without

basolateral tooth, its dorsolateral carina complete, dorsomedian carinae absent. Second tergite mat, finely punctate. Ovipositor sheath 0.9x as long as hind tibia, its tip with 7-10 vertical or weakly oblique teeth.

The genus is identified due to a large areolet, nervulus opposite basal vein, apical transverse carina forming weak to moderately strong sublateral crests and apical margin of clypeus with a weak pair of tubercles or irregularities at the middle. It is distributed in India.

Distribution: Oriental Region. The genus is represented by three species from Uttar Pradesh, India.

Apocryptus indicus sp.nov.

(Pl. I, Figs. 1-3)

Female: Face reguloso-punctate, at sides smooth and subpolished. Clypeus smooth and polished. Malar space about 0.7x the basal width of mandible. Frons above sparsely punctate, at sides smooth. Vertex sparsely punctate; temple smooth and shiny. Pronotum smooth, its shoulder with a few weak punctures. Epomia short. Mesoscutum and scutellum subpolished with sparse shallow punctures; lateral carina confined to its base. Mesopleurum sparsely and shallowly punctate, speculum smooth and shiny; prepectal carina extending up to the base of subtegular ridge. Metapleurum moderately strongly punctate, its juxtacoxal carina complete. Propodeum between the transverse carinae rugoso-punctate, at base sparsely punctate, apically with a few longitudinal ridges. Both transverse carinae complete, evenly arched, not forming lateral crests, spiracle oval. First abdominal tergite smooth and shiny, its spiracles protruding, following tergites mat and subpolished. Ovipositor teeth in one group.

Black, 5-9 flagellar segments white above. The following are yellow: Face, clypeus, base of mandible, temple below, orbital marks on frons, lower half of pronotum, and oval mark on the middle lobe of mesoscutum, scutellum, metascutellum, tegula, subtegular ridge, mesopleurum broadly in middle, speculum, metapleurum above, apical slope of propodeum, band on fifth and sixth tergites narrow. First tergite orange except the apical band. Fore and middle legs largely dark yellow, tarsi tending to be darker. Hind leg light brownish-yellow, its coxa with a black mark, tibia apically dark brown, tarsus white, except basal 0.3 of first and fifth segment wholly blackish.

Male: Similar to female is sculpture and colour, except frons largely smooth; area near ocellar triangle minutely and sparsely punctate, vertex shiny with a few scattered punctures. Propodeum between basal carina and apex finely wrinkled.

Length: Female, 9mm; forewing 2.5mm; ovipositor sheath 5mm; Male, 8mm; forewing 6mm.

Material examined: Holotype one female, India: Uttar Pradesh, Kasganj, 11.viii.2011, Satish Kashyap; Allotype, one male, same data as that of Holotype; Paratype, 3 females, 2 males, same data as that of Holotype.

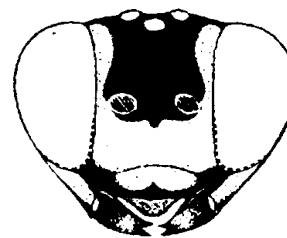


Fig. 1. Front view of Head.



Fig. 2. Dorsal view of Abdomen.



Fig. 3. Side view of Thorax.

Distribution: India.

Remarks: This species is close to *Apocryptus flavofacies* Gupta & Gupta (1) in having teeth on ovipositor tip in one group and second tergite impunctate. However, it can be distinguished in having propodeum weakly rugose laterally between transverse carinae, towards the apex with longitudinal ridges.

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References

- [1]. Gupta, Santosh and Gupta, V.K. (1983). Ichneumonologia Orientalis. Part IX. The Tribe Gabuniini (Hymenoptera: Ichneumonidae). *Oriental Ins. Monogr.*, **10**: 1-313.
- [2]. Gupta, V.K. (1987). The Ichneumonidae of the Indo-Australian Area (Hymenoptera). A synoptic catalogue of the taxa described through 1985 together with a bibliography, 1960-1985 (Part 1 and Part 2). *Mem. American Ent. Inst.*, **41**(1): 1-597 & **41**(2): 598-1210.
- [3]. Uchida, T. (1932). H. Sauters Formosa Ausbeute-Ichneumonidae (Hym.). *J. Fac. Agri. Hokkaido Imp. Univ.*, **33**(20): 133-222.
- [4]. *Apocryptus* Uchida (1932). *J. Fac. Agri. Hokkaido Imp. Univ.*, **33**: 170.