

DESCRIPTION OF A NEW SPECIES OF *RHYTIDOTHORAX* (HYMENOPTERA: ENCYRTIDAE) FROM INDIA

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Abstract

A new species of the encyrtid genus *Rhytidothorax* Ashmead is described from India. It appears related to *R. auraticutum* (Girault, 1915).

Keywords

Encyrtidae, *Rhytidothorax*, *new species*

Introduction

The genus *Rhytidothorax* Ashmead contains 14 species distributed in the New World, Afrotropical, Oriental and Australasian regions. From India only two species are known, *R. nigrum* and *R. pectinatum* both described by Singh and Agarwal (1993).

The genus can be recognised mainly by the type of fore wing venation with long marginal, post marginal and stigmal veins; long and reticulate propodeum; and the ovipositor which is completely hidden, not visible externally. (see Noyes and Hayat, 1984, for further characterisation and synonymies).

Method

The species described here as belonging to a new species was collected by sweeping over low growing grass and herbs. Hence, the host is not known as in the case of the 14 species described in this genus.

Rhytidothorax callistus sp. nov.

(Figs. 1-4)

Material examined

Holotype: Female, 12.vi. 1995, Jorhat, Assam, India, coll. Sudhir Singh.

Paratypes: One female, 5.xi. 1989, North Guwahati, Assam, India;

one female (on slide No. EH. 941), 6.xi.1989, coll. M.C. Basha. The types are presently retained in M. Hayat's collection, Aligarh.

Non-type material: One female (one antenna, one pair of wings on slide, EH. 940), 17.xii.1991, Dehra Dun, Uttarakhand, India, coll. S.B. Zeya.

Etymology

From Greek, *kallistos* which means "most beautiful".

Diagnostic features

Female: Length, 1.22 - 1.37mm. Body completely dark brown, with dull metallic shine; fronto-vertex dull violet, with bluish-green tinge, pronotum and mesoscutum mainly dark violet and bronzy; scutellum metallic, with bluish-green shine; metanotum, propodeum, pleura and gaster dark brown, with violet, gaster with some bronzy shine; tegulae brown. Antennal radicle, basal half to two-thirds of scape, pedicel except extreme apex, and F1 - 5 (fifth segment lightly) infusate brown to nearly dark brown, rest of antenna testaceous yellow to yellow. Fore wing very lightly infusate, with a yellow tinge, hind wing hyaline. Legs, including fore coxae, testaceous yellow; mid coxa dark brown as mesopleura; hind coxa testaceous to brown.

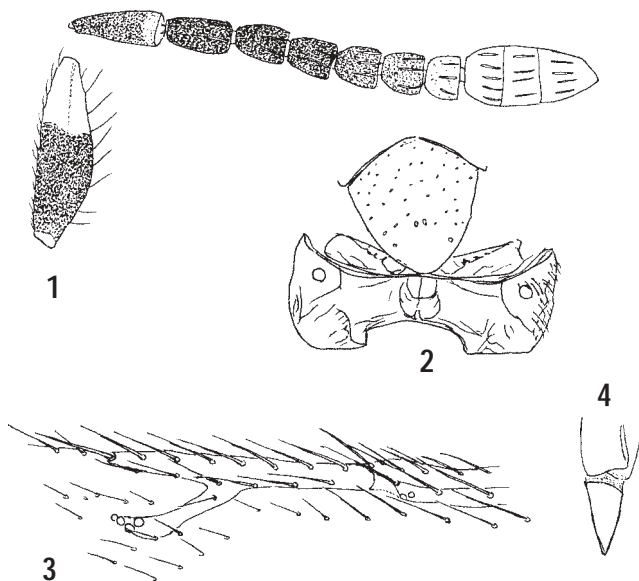
Frontovertex with raised reticulate sculpture, the cells small, and with distinct scattered setigerous punctures; punctures close together on vertex, but each smaller than diameter of anterior ocellus; mesoscutum finely reticulate, with very fine setigerous

punctures, scutellum with raised reticulate sculpture, deeper than on mesoscutum; propodeum with sculpture about as in Fig. 2. Head and thorax densely setose, setae golden brown to brown; sides of propodeum with white setae; eyes densely setose, setae pale, and each seta longer than diameter of a facet.

Structural details as in figures and the measurements, but the following may be noted: occipital margin concave between eyes, and sharp throughout; eyes nearly reaching occiput behind; ocellar triangle with apical angle a right angle or very slightly acute; posterior ocelli slightly less than one ocellus diameter to eye margin, and about one diameter to occipital margin; facial impression not deep, broadly 'U'-shaped with rounded margins; pronotum about 0.25x of mesoscutum length; mesopleura moderately enlarged, narrowly separated from base of gaster; hypopygium extending to four-fifths length along gaster. Antenna as in Fig. 1; distal veins of fore wing as in Fig. 3.

Relative measurements

(From holotype): Head dorsal width (length), 37 (20) frontovertex width, 13.5 (scape length, 17); head frontal height, 33; eye length, 22.5; malar space length, 10; distance between posterior ocelli, 7; distance between a posterior ocellus to eye margin, 2; distance between a posterior ocellus to occipital margin, 2.5. Thorax length, 50; pronotum length, 5; mesoscutum length (width), 19 (30); scutellum length (width), 20 (18); propodeum length, 6.



Figures 1-4. *Rhytidothorax callistus* sp. nov.
1 - Antenna; 2 - Part of thorax; 3 - Distal veins of fore wing;
4 - Distal part of second valvifer and third valvula

Gaster length, 40. (From paratype slide): Fore wing length (width), 150 (56); venation length, 80; hind wing length (width), 108 (24). Mid tibia length, 61; mid basitarsus, 18; mid spur, 19, Gaster TVII length, about 45; ovipositor length, 37; third valvula length, 5.5.

Male: Unknown.

Host: Unknown.

Remarks

Although we have not seen the holotype of *R. auraticutum*, the original description (Girault, 1915) and the illustrations given by Dahms & Gordh (1997) leave no doubt that the Indian species described here must be very close to Girault species. Apparently the only difference between these two species is in the colour. The mesoscutum, propodeum and sides and ventre of thorax were described as 'deep reddish orange' for *auraticutum*, whereas these parts in the new species are metallic with dull violet shine. This species is not at all related to the two Indian species described by Singh & Agarwal (1993).

The new species runs well to *Rhytidothorax* in the key to genera given by Noyes & Hayat (1984; key couplets 216 and 450), but differs from the 'generic character' noted by these authors in having the third valvulae (= gonostyli) free (Fig. 4), though short. Dahms & Gordh (1997) commented upon this genus and have placed *auraticutum* in a separate group (their Group - 1), but did not mention the condition of the third valvulae. If the third valvulae in the holotype of *auraticutum* (type species of *Anusomyia*, synonymized with *Rhytidothorax* by Noyes & Hayat, (1984) proves to be as in the Indian species, then it may be desirable to consider *Anusomyia* a valid genus.

References

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