



Short Communication

NEW RECORDS OF HAIRY WASPS (HYMENOPTERA: SCOLIIDAE) FROM DIU, INDIA

INTRODUCTION

The family Scoliidae is a group of solitary fossorial aculeate wasps commonly known as hairy wasps. Adults are usually black, commonly marked with yellow, white or red. Their wings are usually dark with metallic reflections. Vestiture varies from entirely black or black mixed with white to entirely golden or reddish. Body length may vary from 5 mm to 35 mm (rarely up to 50 mm). Sexual dimorphism is distinct. They are world wide in distribution but predominantly found in tropical region and consist of about 560 species, 220 subspecies distributed among 43 genera, 28 subgenera in two subfamilies: Proscoliinae and Scoliinae (Osten, 2005). The larvae of scoliid wasps are ectoparasitic on the larvae of Coleoptera, usually Scarabaeoidea but rarely Curculionoidea.

The members of this family are readily distinguished from other wasps by having (1). Wing membranes finely and longitudinally wrinkled apically (2). Metacoxae widely separated (rarely less so) by wide flat metasternum at same level as mesosternum; metacoxa partly concealed basally by a wide lamina (3). Propodeum divided into three by 2 longitudinal grooves traversing both disc and declivity.

Seventy nine species under 14 genera have been reported from Indian subregion till date (Gupta & Jonathan, 2003; Schulten *et al.*, 2011). There is no record of scoliid fauna from Diu so far. In this paper, we are reporting two species of Scoliidae from Diu for the first time.

MATERIAL AND METHODS

Diu Island (20.71° N 70.98° E) is situated off the southern tip of the Saurashtra (Kathiawad) peninsula of Gujarat. Diu is bounded by Junagadh and Amreli districts of Gujarat in the north and by the Arabian Sea from other three sides. The altitude is about 6 meters above sea level.

The specimens were collected from Nagoa beachside by using sweeping net specially made for the purpose. The specimens were studied and photographed by using a Leica Stereo microscope with LAS software version 3.6.0. All the specimens were properly preserved and added to the 'National Zoological Collections' of the Hymenoptera Section of the Zoological Survey of India, Kolkata (NZC).

The following abbreviations used in the text for the Museums: NZC = National Zoological Collections of Zoological survey of India, Kolkata, India; UZMC = Universitetets Zoologiske Museum, Copenhagen, Denmark; ZMB = Zoologisches Museum der Humboldt Universität, Berlin, Germany.

RESULTS

Two species of Scoliidae reported for the first time from Diu as details given below.

1. *Micromeriella marginella marginella*

(Klug, 1810)

(Images 1 & 2)

1810. *Scolia marginella* Klug, 214. Type Male, India-Orient (ZMB).

1897. *Scolia marginella*: Dalla-Torre, 169.

1974. *Micromeriella marginella marginella*; Bradley, 443.

Material examined: 2♀, INDIA: Diu, Nagoa beachside, 14.vii.2014, Coll. Gaurav Sharma & Party, NZC Regd. Nos. 14991/H3 & 14992/H3.

Diagnosis: Female (Image 1): Length 9-9.5 mm. Integument black; mandibles, about anterior half of clypeus, antennal flagellum, mid and hind tibia, all tarsal segments and abdominal sternites reddish brown; basal four abdominal tergites with a narrow yellow apical bands. Erect vestiture white and sparse, white fringes at the apices of first five tergites, pygidium with reddish setae. Wings clear with yellowish anterior margin. Clypeus impunctate in the middle (Image 2); frontal spatium with coarse and close punctures; front impunctate and sub polished; around ocellar triangle with close punctures; vertex with a few scattered punctures, except for a row of close punctures along eye margin, its declivous portion with scattered punctures; mesoscutum, scutellum and metanotum impunctate in the middle; metapleuron impunctate; dorsal side of propodeum with close punctures except an impunctate area anteriorly along the inner margin of dorsolateral area of propodeum.

Distribution: India: Andhra Pradesh, Bihar, Delhi, Diu (new record), Gujarat, Jharkhand, Karnataka, Kerala, Maharashtra, Odisha, Pondicherry, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Sri Lanka.

2. *Scolia (Discolia) binotata binotata*

Fabricius, 1804

(Images 3-6)

1804. *Scolia binotata* Fabricius, 244. Type Male, Tranquebar (UZMC).

1978. *Scolia (Discolia) binotata binotata*: Krombein, 41-43, Female, Male; Sri Lanka.

Material examined: 3♂, INDIA: Diu, Nagoa beachside, 14.vii.2014, Coll. Gaurav

Sharma & Party, NZC Regd. Nos. 14993/H3 to 14995/H3.

Diagnosis: Male (Image 3): Length 10-11 mm. Integument black, usually third and fourth tergites with paired, rounded, light red spots. Vestiture black mixed with white. Wings dark brown at base and paler at apices with bluish purple reflections; forewing membrane beyond cells devoid of microtrichiae except for a small patch adjacent to apex of marginal cell. Frontal spatium contiguously punctate; flagellum clavate towards apex; front with subcontiguous to contiguous punctate (Image 4); mesoscutum with large, deep punctures; dorso-median area of propodeum with moderately large punctures, dorso-lateral area similarly punctate at its posterior two-thirds, anterior third being impunctate; first abdominal tergite with a weak antero-median tubercle, surface with moderate sized punctures; second tergite sparsely punctate; second sternite with a weak median tubercle near the base.

Variations: The paired light red spots on the abdominal tergites highly varying. In one specimen (Image 5), 3rd, 4th & 5th tergites with paired spots. In another specimen (Image 3), 2nd & 3rd with paired spots. In yet another specimen (Image 6), 2nd & 3rd with paired spots but the spot on second tergite highly reduced.

Distribution: India: Andhra Pradesh, Arunachal Pradesh, Assam, Delhi, Diu (new record), Karnataka, Kerala, Maharashtra, Manipur, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere*: Sri Lanka.

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PLATE - I

Micromeriella marginella marginella (Klug) Female



1. Body profile

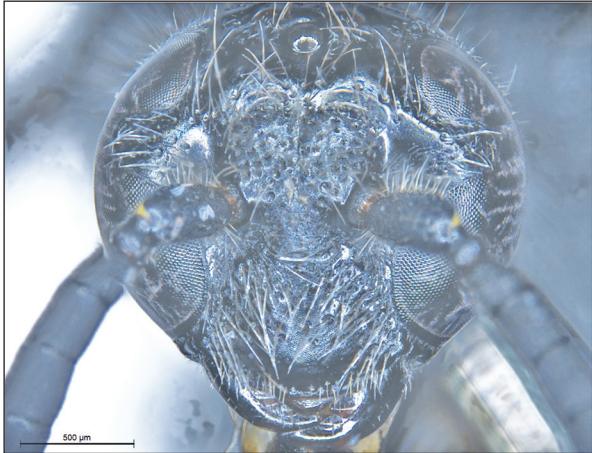


2. Head frontal view

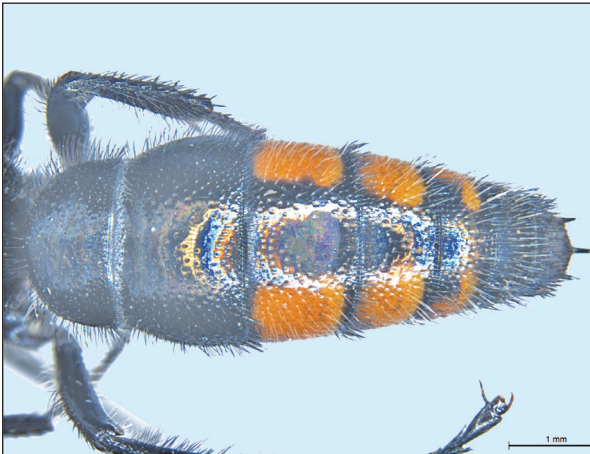
Scolia (Discolia) binotata binotata Fabricius Male



3. Body profile



4. Head frontal view



5. Abdomen in different specimens



6. Abdomen in different specimens

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