

NEW RECORD OF THE GENUS *OMICROIDES* GIORDANI SOIKA (HYMENOPTERA: VESPIDAE: EUMENINAE) FROM INDIA

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INTRODUCTION

The genus *Omicroides* was raised by Giordani Soika in 1961 based on the type species *Eumenes singularis* Smith. This genus differs from its nearest genus *Eumenes* Latrielle by having a distinct epicnemial carina on mesepisternum. This Oriental genus is represented by a single species *Omicroides singularis* (Smith). This species so far reported from Indonesia (Sumatra, Kalimantan), Malaysia (Sarawak), Myanmar, Singapore and Thailand (Smith, 1858; Giordani Soika, 1935; Vecht, 1937). In this paper, this genus is recorded for the first time from India based on the specimen collected from Nongpoh of Meghalaya state of north eastern India and a redescription is also provided.

MATERIAL AND METHODS

This study is based on a specimen collected from Nongpoh, Meghalaya, India. The specimen was studied and photographed by using a Leica Stereo microscope with LAS software version 3.6.0., and drawings were made by using the drawing tube of the same microscope.

The identified specimen was properly registered and added to the 'National Zoological Collections' of the Hymenoptera Section of Zoological Survey of India, Kolkata.

Abbreviations used for the Museums: NZSI = 'National Zoological Collections' of Zoological Survey of India, Kolkata, India; UMO = University Museum of Natural History, Oxford, England.

Abbreviations used for the terms: F1-F2 = Flagellar segments 1 and 2; H = Head; M = Mesosoma; OOL = Ocellocular length; POL = Postocellar length; S1-

S2 = Metasomal sterna 1 and 2; T1-T3 = Metasomal terga 1 to 3.

RESULTS

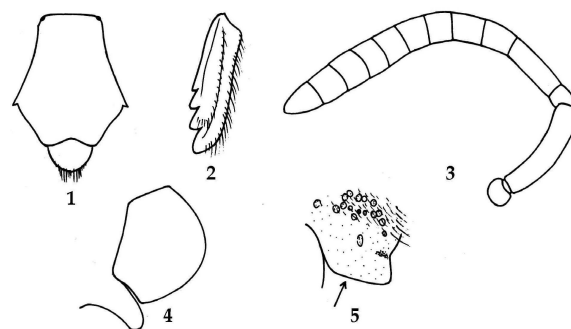
Omicroides singularis (Smith)

(Figs. 1-5; Images 1-10)

1858. *Eumenes singularis* Smith, 109, ♀, Sarawak, Borneo (UMO). Additional citations: Smith, 1871: 372 (cat.); Giordani Soika, 1935 (1934): 129, ♀, text fig. II, pl. 2 fig.1 (Borneo, Malaya; in subgenus *Omicroides*); van der Vecht, 1937: 277 (Sumatra; in subgenus *Omicroides*).

1882. *Eumenes pomiformis* var. *singularis* (Smith): Maindron, 268 (cat.). Additional citation: Dalla Torre, 1894: 31 (cat.); Dalla Torre, 1904: 24 (cat.).

1961. *Omicroides singularis* (Smith): Giordani Soika, 241.



Omicroides singularis (Smith) Female

Fig. 1. Clypeus and labrum, **Fig. 2.** Left mandible, **Fig. 3.** Antenna, **Fig. 4.** Tegula and Parategula, **Fig. 5.** Postero-lateral corner of propodeum showing propodeal valvulae.

Redescription: Female: Body length (H+M+T1+T2) 12.89 mm; forewing length 9 mm. Body black with the following yellow and brown colourations. The

yellow markings as follows: two elongated spots at the base of clypeus which fuse together at upper portion, two elongated spots at the lateral sides of clypeus, an elongate-rounded spot at supraclypeal area, a spot in between antennal scrobe which is almost fuse with the spot at supraclypeal area, a spot on ocular sinus, a spot on the upper part of temple near to eye margin, a transverse line on pronotum anteriorly, a spot on pronotum near to tegula, a spot on tegula posteriorly, parategula, a spot on upper part of mesepisternum, a transverse line in each side of propodeum at its base, two ovate lines at its apex, fore and mid femora at their outer apex, fore and mid tibiae at their outer side, a transverse band near the apical margin of petiole, a small ovate spot on each side and a transverse band on apex of T2. Brown markings as follows: mandible at its apex, apical antennal segments beneath, tegula except the yellow mark, fore and mid tibiae except the outer yellow marks, hind tibia and all tarsi. Wings fusco-hyaline, iridescent, the apical margin of forewing darker. Body covered with fine griseous pile.

Head : maximum width 1.21x its median length in front view (Image 2); clypeus (Fig. 1) convex, the apex broadly emarginate forming two rounded teeth on either sides, with scattered punctures; mandible (Fig. 2) long, moderately stout with four distinct teeth on inner side, with moderately large setae dorsally; labrum (Fig. 1) rounded at apex; supraclypeal area and the space in between antennal scrobe almost smooth with very fine punctures; frons except lower lateral margins closely and strongly punctured, interspaces less than diameter of punctures; ocular sinus with scattered punctures except inner margins almost smooth; area in front of median ocellus with scattered punctures (Image 3); vertex, temple and occiput almost smooth with scattered minute punctures; POL 1.04x OOL (Image 3); diameter of anterior ocellus equal to the distance between anterior ocellus and posterior ocelli; interocular distance on vertex 2.23x than at clypeus; temple 0.53x narrower than eye in profile (measured through its ocular sinus); antennal scrobe 8.5x farther from each other than from eyes; scape 4.5x as long as pedicel, 1.64x as long as F1; F1 2.89x as long as wide, 1.83x as long as F2; flagellar segments

slightly widening towards apex as in figure 3; apical antennal segment 1.4x as long as wide.

Mesosoma (Image 4 & 5): pronotum strongly and closely punctured except anterior face and posterior margin near to tegula smooth; mesoscutum strongly and closely punctured except postero-lateral area and parategula with few scattered punctures, maximum width of mesoscutum 1.20x its median length; scutellum and metanotum strongly and closely punctured, punctures on posterior margin with longitudinally raised carina; propleuron smooth; upper part of mesepisternum above transverse suture smooth and convex; lower part of mesepisternum below transverse suture rugosely punctate; epicnemial carina well developed; epicnemium and posterior margin of mesopleuron smooth, polished with distinct scattered punctures; dorsal metapleuron with a smooth area; ventral metapleuron with a groove or channel transversely carinated; propodeal dorsum rugosely punctured except at dorso-lateral angle smooth; ventral side of propodeum rugosely punctured including inner concavity; lateral area of propodeum rugosely punctured, lateral margin transversely carinated; median groove of propodeum distinct, punctured and complete; anterior face of pronotum separated from posterior portion by a sharp carina, not well pronounced at middle; pronotum without pretegular carina; parategula (Fig. 4) exceeding tegula posteriorly; axillary fossa not slit-like, much broader; metanotum at the same level of propodeum and scutellum, not raised in profile view; propodeal valvulae (Fig. 5) quadrangular in lateral view (Fig. 5), contiguous with the lateral margin of propodeum and sharply chitinized; midtibia with one spur; Forewing (Image 6) 3.26x as long as broad, pterostigma 4.19x prestigma; second submarginal cell acute basally; hind wing as in image 6.

Metasoma : petiole 1.48x as long as mesosoma in lateral view, 1.55x as long as T2; dorsum of petiole (T1) punctured, punctures more strong on basal 3/4th area, remaining apical portion with minute scattered punctures except a depressed portion near to apex strongly punctured (Image 7), lateral sides less punctured; S1 (Image 8) smooth, polished without punctures; T2 and S2 with small, scattered punctures, the diameter of the punctures

distinctly less than the distance between punctures; T2 and S2 (Image 9 & 10) with lamellae separated by apical thickening, a line of crenulated punctures at the point of separation; T2 1.53x as long as broad, distinctly curved inwards medially at apex; S2 slightly curved inwards medially at apex; remaining segments minutely punctured.

Material examined : 1♀, India: Meghalaya, Ri-Bhoi district, Nongpoh, 25.9° N 91.88° E, Alt. 485 m, 15.x.1975, Coll. V.K. Gupta & Party (NZSI Regd. No. 12922/H3).

Distribution : India (new record): Meghalaya. *Elsewhere*: Indonesia (Sumatra and Kalimantan), Malaysia (Sarawak, Borneo), Myanmar, Thailand and Singapore.

Discussion : In the original description of this species by Smith (1858) described that a yellow line present in the middle of the T3 and the following tergites. This character is not visible in the studied specimen since the T3 and the following segments are concealed very much.

Remarks: New record of the genus *Omicroides* Giordani Soika from Indian subcontinent; the species *Omicroides singularis* (Smith).

SUMMARY

The potter wasp genus *Omicroides* Giordani Soika is newly recorded from India with the species *O. singularis* (Smith) reported. The redescription of female with illustrations was also provided.

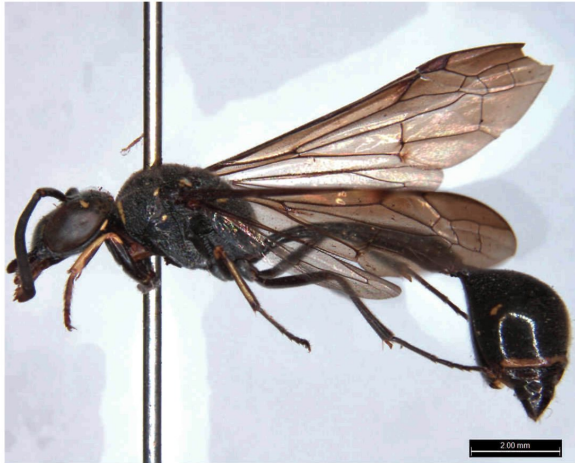
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REFERENCES

- Dalla Torre, K.W. Von. 1894. *Catalogus Hymenopterorum* 9, Vespidae (Diploptera): 1-81. Leipzig.
- Dalla Torre, K.W. Von. 1904. Hymenoptera, Fam. Vespidae. In: Wytsman, P. (Ed.), *Genera Insectorum*, 19: 1-108.
- Giordani Soika, A. 1935. *Ricerca sistematiche sugli Eumenes y Pareumenes dell' Archipelago Malese e della Nova Guinea*. *Ann. Mus. Civ. Stor. Nat. Genova*, 57: 114-151.
- Giordani Soika, A., 1961. Les ligneesphiletiques des *Eumenes* s. l. du globe (Hym. Vesp.). *Verh. 11th Int. Kongr. Entomol.*, 1: 240-245.
- Giordani Soika, A. 1991. Eumenidi Raccolti in Indonesia da G. Osella EJ. Klapperich. *Bollettino del Museo Civico di Storia Naturale di Verona*, 15: 163-166.
- Maindron, M. 1882. Histoire des Guepes solitaires (Eumeniens) de l' Archipel Indien et de la Nouvelle-Guinee 3e Partie. *Catalogue des Eumeniens de l'archipel Indien et des iles des Papous*. *Ann. Soc. Entomol. France*, (6) 2: 267-286.
- Smith, F. 1858. Catalogue of the Hymenopterous insects collected at Sarawak, Borneo; Mount Ophir, Malacca; and at Singapore, by A. R. Wallace. *J. Proc. Linn. Soc. (Zool.)*, 2: 42-130.
- Smith, F. 1871. A catalogue of the Aculeate Hymenoptera and Ichneumonidae of India and eastern Archipelago, with introductory remarks by A.R. Wallace. *J. Proc. Linn. Soc. (Zool.)*, 11: 285-415.
- Vecht, Van Der, J. 1937. Descriptions and records of Oriental and Papuan solitary Vespidae. *Treubia*, 16: 261-293.

PLATE-1



1. Body profile.



2. Head front view.



3. Head dorsal view.



4. Mesosoma dorsal view.



5. Mesosoma lateral view.



6. Forewing and Hindwing.

PLATE-2



7. Petiole dorsal view.



8. Petiole ventral view.



9. Second gastral tergum.



10. Second gastral sternum.