



New record of the paper wasp species *Ropalidia birmanica* van der Vecht (Hymenoptera: Vespidae: Polistinae) from India

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Abstract: The paper wasp species *Ropalidia birmanica* van der Vecht is newly recorded from India.

Key Words: Polistinae, *Ropalidia birmanica* van der Vecht, new record, India

Introduction

The paper wasp genus *Ropalidia* Guérin-Méneville, 1831 (Hymenoptera: Vespidae: Polistinae: Ropalidiini) is one of the species rich genus with more than 180 species and is greatly distributed in Old World tropics. Das & Gupta (1989) made an extensive taxonomic study on the social wasps of the Indian subcontinent. Kojima *et al.* (2007) recognized 26 species from the Indian subcontinent of which 24 species were present in India. Recently, Lambert Kishore *et al.* (2014) and Mohammed Shareef *et al.* (2015) added two more species to the Indian fauna of *Ropalidia*. In this paper, we are reporting *Ropalidia birmanica* van der Vecht, 1962, for the first time from India. This species so far recorded from Myanmar and China (Kojima and Carpenter, 1997; Kojima *et al.*, 2007).

Material and Methods

The specimen was collected with a hand net from Serkhan village located in the Kolasib district of Mizoram state, India. The specimen is studied and photographed by using a Leica Stereo microscope with LAS software version 3.6.0. The identified specimen is properly registered and kept at Western Ghats Regional

Centre, Zoological Survey of India, Kozhikode, Kerala (ZSIK).

Abbreviations used for the terms: F = Antennal flagellomere; OOL = Ocellular length; POL = Postocellar length; S = Metasomal sterna; T = Metasomal terga.

Results and Discussions

Ropalidia birmanica van der Vecht, 1962

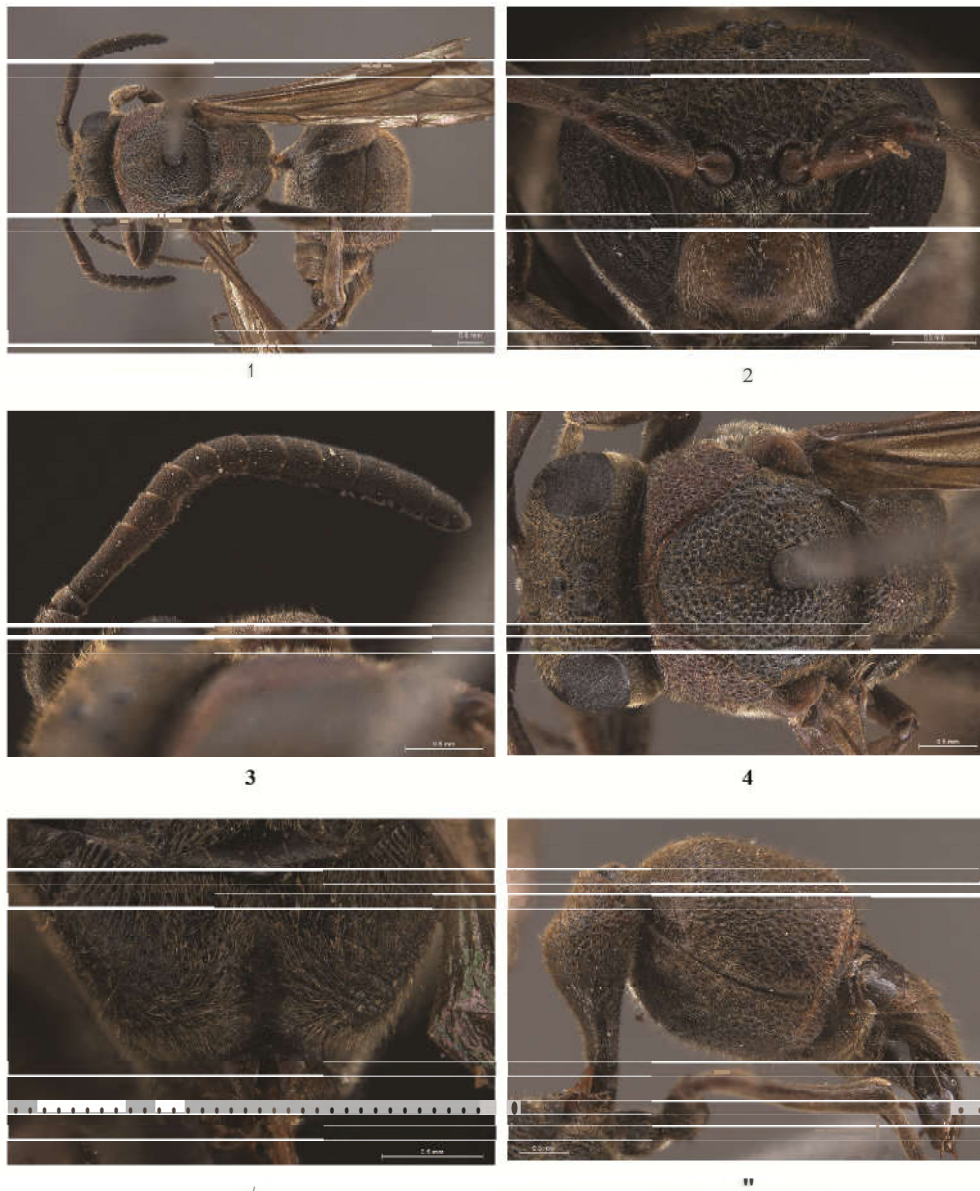
Ropalidia taiwana birmanica van der Vecht, 1962: 23, male, female (in subgenus *Anthreneida*). "North East Burma, Sadon, 1200 m" (holotype male Stockholm).

Ropalidia birmanica; Kojima *et al.*, 2007: 382.

Diagnosis: Male (Fig. 1): Apical flagellomere of antenna short; carina of F8 not emarginate (Fig. 3); OOL more than 2.5× as long as POL; scutellum reddish brown, distinctly convex and with a longitudinal median furrow (Fig. 4); propodeum (Fig. 5) with median depression distinct and reticulately punctured; lateral sides of propodeum also reticulately punctured; propodeum without paired, longitudinal, basal carinae; propodeal orifice wider, more or less rounded dorsally; no yellow marks on propodeum; propodeal valvula large, obscuring most of propodeal orifice in lateral view; basal angle of second

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Figs 1-6) *Opatia trismamma* van Kler Veent male. 1, Dorsy profile; 2, Head frontal view; 3, Antenna; 4, Head; 5, mesosoma dorsal view; 6, Pronodeum; 6, Metasoma profile view.

submarginal cell distinctly less than 90°; T1 less than twice as long as wide in dorsal view and less than 2.5× as long as high in lateral view; second metasomal segment vertical apically, with T2 about as long as S2 (Fig. 6); T2 wider than long in dorsal view; second segment as long as high in lateral view; genitalia with proximo-ventral margin of penis

valve with a long hook, two thirds as long as penis valve.

Specimen examined: India: Mizoram, Kolasib district, Serkhan, 27.xi.1996, Coll. S.C. Mitra & Party, ZSIK Regd. No. ZSI/WGRC/ IR/ INV.7382.



Distribution: India (new record): Mizoram.
Elsewhere: China, Myanmar.

Comments: As per the recent key to species of the Indian subcontinent by Kojima *et al.* (2007), *R. birmanicavan* der Vecht, 1962, comes under *R. stigma* species group with basal angle of second submarginal cell distinctly less than 90°. It comes to the couplet number 8 of the key where *R. santoshae* Das & Gupta, 1989 and *R. sculpturata* Gusenleitner, 2001 were also keyed out. The male antennae of *R. birmanica* clearly differ from that of *R. santoshae*. As per the recent key to Chinese species by Tan *et al* (2014), *R. birmanica* comes close to *R. taiwana* Sonan, 1935, but differs from it in having: apical flagellomere of male antenna short; carina of F8 not emarginate; second metasomal segment vertical apically, with T2 about as long as S2; male genitalia with proximo-ventral margin of penis valve with a long hook, two thirds as long as penis valve (in *R. taiwana* apical flagellomere of male antenna long; carina of F8 emarginate; second metasomal segment oblique apically, with S2 longer than T2; male genitalia with proximo-ventral margin of penis with a short hook, at most one fourth as long as penis valve).

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References

- Das, B.P. and Gupta, V.K. (1989). The social wasps of India and the adjacent countries (Hymenoptera: Vespidae). *Oriental Insects Monograph*. **11**: 1-292.
- Guérin-Méneville, F.C. (1831-1838). Crustacees, Arachnides *et* Insects. In Duperrey, L.J., "Voyage autour du Monde sur la Coquille (1822-25)". *Zoolog.* **2(2)**: 319-322.
- Gusenleitner, J. (2001). Beitrag zur Kenntnis von Faltenwespen der orientalischen Region (Hymenoptera, Vespidae, Eumenidae). *Linzer Biol. Beit.* **33(2)**: 655-662.
- Kojima, J. and Carpenter, J.M. (1997). Catalog of species in the polistine tribe Ropalidiini (Hymenoptera: Vespidae). *Amer. Mus. Novit.* **31**: 1-96.
- Kojima, J., Lambert Kishore, Nguyen, L.T.P. and Saito, F. (2007). Taxonomic notes on the paper wasps of the genus *Ropalidia* in the Indian subcontinent (Hymenoptera: Vespidae). *Entomol. Sci.* **10**: 373-393.
- Lambert Kishore, Mohammed Shareef, K.P. and Girish Kumar, P. (2014). A new species of *Ropalidia* Guérin-Méneville, 1831 (Hymenoptera: Vespidae: Polistinae) from Southern Western Ghats, Kerala, India. *J. Entomol. Res.* **38(3)**: 235-238.
- Mohammed Shareef, K. P., Lambert Kishore and Girish Kumar, P. (2015). A new species of *Ropalidia* Guérin-Méneville, 1831 (Hymenoptera: Vespidae: Polistinae) from Southern Western Ghats, India. *Journal of Threatened Taxa*. **7(1)**: 6836-6838.
- Sonan, J. (1935). On the genus *Ropalidia* from Formosa and Okinawa (Hymenoptera: Vespidae). *Transactions of the Nat. Hist. Soc.* **25**: 199-202.
- Tan, J-L., van Achterberg, K., Chen, X-X. (2014). Pictorial key to species of the genus *Ropalidia* Guérin-Méneville, 1831 (Hymenoptera, Vespidae from China, with description of one new species. *Zook.* **391**: 1-35.
- Vecht, J. van der (1962). The Indo-Australian species of the genus *Ropalidia* (= *Icaria*) (Hymenoptera, Vespidae) (Second part). *Zool. Verhand. Leid.* **57**: 1-71.