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The paper-wasps of the genus *Ropalidia* Guérin-Méneville, 1831, is one of the largest social wasp groups consisting of approximately 180 valid species which are predominantly distributed in the tropical and subtropical regions of the Old World, with only a few species distributed in temperate areas in Australia and South Africa (Nguyen et al. 2006). The Indian subcontinent is rich in *Ropalidia* species, with 26 valid species, out of which around 10 species are endemic to the Indian subcontinent (Das & Gupta 1989; Gusenleitner 2006; Kojima et al. 2007).

In the present paper a new species of *Ropalidia* is described, which distinctly differs from all other species of this group from the Indian subcontinent in having long, strong, paired longitudinal basal carina on propodeum running three-fourth of its length posteriorly and with wider and deeper median depression on propodeum (Image 5).

### Material and Methods

The specimens were collected by using a sweep net from undisturbed habitats of Periyar Tiger Reserve, pepper and coffee plantations at Sultan's Battery, and at an agroecosystem of Mukkam, parts of the

## A NEW SPECIES OF *ROPALIDIA* GUÉRIN-MÉNEVILLE, 1831 (HYMENOPTERA: VESPIDAE: POLISTINAE) FROM THE SOUTHERN WESTERN GHATS, INDIA

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Abbreviations: AEL = Distance between antenna and eye; DZMCC = Department of Zoology, Malabar Christian College, Kozhikode, India; F1-F3 = Flagellomeres 1 to 3; H = Head; IAL = Distance between two antennae; IOL = Inter ocular length; NZC = Hymenoptera Section of Zoological Survey of India, Kolkata, India; OOL = Ocello ocular length; POL = Distance between posterior ocelli; S2 = Second metasomal sternum; Th = Thorax; T1-T2 = Abdominal tergites 1 to 2.

southern Western Ghats. The specimens were studied and photographed by using a Leica M60 stereozoom microscope with LAS software version 3.6.0.

All the type specimens were kept in the Department of Zoology, Malabar Christian College (DZMCC), but



DATA DEFICIENT	LEAST CONCERN	NEAR THREATENED	VULNERABLE	ENDANGERED	CRITICALLY ENDANGERED	EXTINCT IN THE WILD	EXTINCT
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*Ropalidia narendrani* sp. nov.  
Narendran's Paper Wasp



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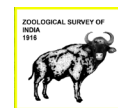
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eventually will be transferred to the “National Zoological Collections” of the Zoological Survey of India, Kolkata (NZC).

## Results

### *Ropalidia narendrani* sp. nov.

(Images 1–6)

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## Material examined

**Holotype:** 1.iii.1981, female, Edapalayam, Periyar Tiger Reserve, Thekkadi (9°34'N & 77°06'E, elevation 1,010m), Idukki District, Kerala, India, coll. R.S. Pillai & party (Kept at DZMCC with Reg. No DZMCC/A104 and eventually will be transferred to NZC).

**Paratypes:** DZMCC/A105, 1 female, Sultan's Battery (11°39'49.34"N 76°15'31.07"E, elevation 889m, pepper and coffee plantation), Wayanad District, Coll. L. Kishore & party; DZMCC/A106, 1 female, Mukkam (11°19'09.73"N & 75°59'44.88"E, elevation 19m), Kozhikode District, Kerala, India, 18.v.2002, coll. K.N. Nair & party.

## Description

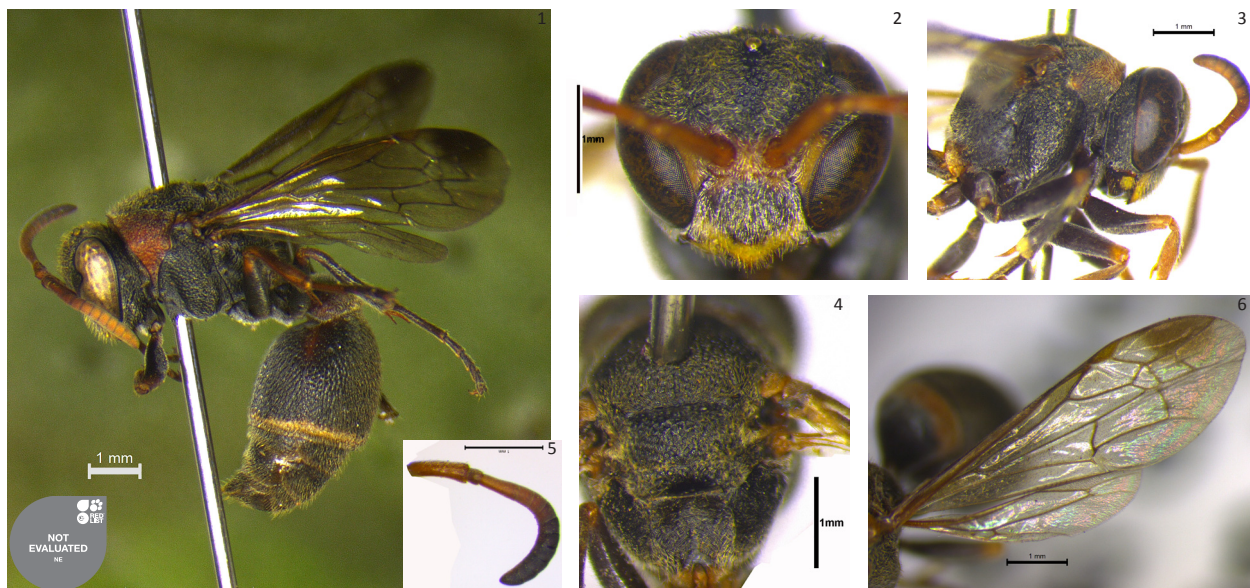
**Holotype Female (Image 1):** Length (H+Th+T<sub>1</sub>+T<sub>2</sub>) 8.6mm. Forewing length 6.4mm.

**Colour:** Black with yellow and ferruginous markings. Yellow portions: a broad band along the apical margin of clypeus, a large spot at base of mandible, inner orbit broadly below ocular sinus, interantennal space,

supraclypeal area. Ferruginous markings: antenna from base to F3, pronotum almost entirely on anterior and posterior side except for some irregular black markings, tegula, fore femur at apex, fore and mid tibia and tarsi, a broad apical band on T1, a narrow apical band on T2 and S2.

**Head:** Head (Image 2) 1.17x as wide as long; frons, clypeus, supraclypeal area, mandible, vertex and gena with white pubescence. Clypeus convex, with small shallow sparse punctures, 1.2x as wide as long, clypeal margin pointed at apex and emarginated at base; mandible quadridentate, with large shallow sparse punctures near teeth; frons, ocular sinus and vertex with large close punctures with diameter 2.2x as interspaces; temple sparsely punctate; supra clypeal area, interantennal space and inner orbit below ocular sinus smooth; gena almost as wide as eye in profile (Image 4); OOL 1.8x POL; POL 1.3x diameter of posterior ocellus; IOL at vertex 1.29x that at clypeus; IAL 0.97x AEL; F1 0.65x as long as scape, 2.26x as long as wide; F2 1.8x as long as wide; F10 1.17x as long as wide.

**Thorax:** Anterior face of pronotum smooth; pronotum, mesoscutum, scutellum and propodeum with white pubescence. Pronotal carina strong and complete; pronotal fovea absent; lateral corner of pronotum with transverse carinae; posterior face of pronotum, mesonotum, scutellum, anterior half of metanotum and mesopleuron closely and reticulately punctate (Images 3 & 4); dorsal metapleuron transversely striate; ventral metapleuron with sparse shallow punctures;



Images 1–6. *Ropalidia narendrani* sp. nov. female

1 - body profile; 2 - head front view; 3 - head & mesosoma lateral view; 4 - mesosoma dorsal view; 5 - antenna; 6 - wings

propodeum (Image 5) with wider and deeper median depression delimited by strong carina which run posteriorly about three-fourths of propodeum, with fine transverse striations; propodeal orifice wider.

Gaster (Image 6): Gastral petiole in dorsal view abruptly swollen posteriorly from point of attachment of suspensory ligaments, smooth at base, with medium punctures towards apex and lateral sides; T1 0.9x as its apical width; T2 1.1x as long as wide, 1.5x as wide as T1; T2 and S2 closely and deeply punctured.

Male: Unknown.

Distribution: India: Kerala.

### Etymology

The species is named after our teacher Late Prof. T.C. Narendran for his significant contribution to the taxonomy of Indian insect fauna for the last 44 years.

### Common name

Narendran's Paper Wasp.

### Discussion

This new species comes close to the *Ropalidia marginata* species group based on the presence of paired longitudinal basal carina on propodeum, but strongly differs from all of the species in the *R. marginata* species group by the following characteristics: (i) Propodeum with more wider and deeper median depression

delimited by strong carina which run posteriorly about three-fourths of propodeum (in *R. marginata* species group propodeum without deeper median depression and delimited by weak carina which run posteriorly up to half of propodeum); (ii) Propodeal orifice much wider (in *R. marginata* species group propodeal orifice is very narrow); (iii) T1 short and abruptly swollen posteriorly from the point of attachment of metasomal suspensory ligaments (in *R. marginata* species group T1 long and dorsal margin arising after some distance from posterior end of basal slit for reception of metasomal suspensory ligaments); and (iv) Body very small in size (less than 10mm) compared to other species of the *R. marginata* species group.

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