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# Journal of Threatened Taxa

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### **SHORT COMMUNICATION**

### A NEW SPECIES OF BRACONID WASP *METEORUS* HALIDAY (HYMENOPTERA: BRACONIDAE: METEORINAE) FROM INDIA

Zaheer Ahmed, Altaf Hussain Mir & Mohammad Shamim

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## A new species of braconid wasp *Meteorus* Haliday (Hymenoptera: Braconidae: Meteorinae) from India

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Abstract: A new species of braconid wasp, Meteorus rubrum Ahmed & Shamim sp. nov. (Hymenoptera: Braconidae: Meteorinae), is described from India. The new species is closely related with M. dichomeridis (Wilkinson, 1930) and M. kotanni (Maeto, 1986).

Keywords: Meteorus dichomeridis, M. kotanni, Rajouri, wasp.

Haliday (1835) erected the genus Meteorus with its type species Ichneumon pandulator Latreille. The genus is distinguished by maxillary palp six segmented, forewing vein SR1 usually long and straight, first metasomal tergite slender and long. This genus is studied well by Muesebeck (1936), Nixon (1943), Huddleston (1980, 1983, 1986), and Maeto (1986, 1988a,b, 1989a,b, 1990). It includes 412 species from all over the world (Yu 2020), out of which 11 species have been described and reported from India so far, viz.: Meteorus arcticida (Viereck, 1912), M. dichomeridis (Wilkinson, 1930), M. spilosomae (Narendran & Rema, 1996), M. etawahiana (Shamim & Ahmad, 2008), M. poonchiensis (Shamim & Ahmad, 2008), M. aurayyus (Shamim, 2011), M. hayati (Shamim, 2011), M. indicus (Shamim, 2011), M. narendrani (Shamim, 2011), M. sharifi (Shamim, 2011), and M. aligarhensis (Shamim

& Usmani, 2012). All of these species are koinobiont endoparasitoids, usually attack young exposed-feeding caterpillars, but some of the species parasitize grubs (Shaw & Huddleston 1991; Shaw 1997). Meteorus species are famous for their diverse silk-spinning, and cocoonforming behaviours (Zitani et al. 1997). In this paper a new species Meteorus rubrum is illustrated and described from India.

PLATINUM

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#### **MATERIAL AND METHODS**

The specimens were collected by using sweep net. The slides and card mounts of specimens were examined through stereo zoom binocular microscopes (Nikon SMZ1500 and Nikon SMZ 25). The ocular micrometer was used for the measurement (linear side of 100 divisions) of body parts. The ocular micrometer was calibrated with the help of stage micrometer under 8x10x magnification. Photographs were taken at different magnifications (4-16x) by the camera attached to Stereozoom binocular microscope. The general terminologies and venation terminologies followed given by Achterberg (1993) and for the surface sculpture followed Eady (1968). The following acronyms are used to denote the various body

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parts: AOL= Anterior ocellar line; POL= posterior ocellar line; OOL= ocello ocular line; OOD= ocellus diameter; F: flagellomere; T= thoracic terga; 1-CU1= first cubitus, 2-CU1= second cubitus, 3-CU1= third cubitus. Acronym for type depository MDZUK= Museum Department of Zoology, University of Kashmir

#### **RESULTS AND DISCUSSION**

Meteorus rubrum Ahmed & Shamim, sp. nov. (Image 1 A–K)

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#### Material examined

Holotype: ZoKU Art/06179, 25.vi.2019, Female, Palma, Rajouri, Jammu & Kashmir (UT), India, coll. Zaheer Ahmed, deposited in MDZUK.

Paratype: ZoKU Art/06179a, 1 Female, data same as holotype.

Female: Body length: 8.87mm; Forewing: 8.45mm.

Head: The width of head in dorsal view 1.6x of its length and 1.4x of height; occipital carina complete; length of eye in lateral view 1.4x of its width and 1.8x of temple; temple setose, OOL:POL:AOL:OOD= 7:10:5:9; vertex smooth and densly setose, width of vertex 2.5x of its length; frons smooth and shiny with median longitudional carina, width of frons 3.5x of its length; face rugose and densely setose; width of face 1.8x of its length; tentorial pits deep and broad; intertentorial line 4.3x of tentorioocular line; length of malar space 3.3x of basal width of mandible; clypeus convex and sparsely setose, length of clypeus 2.7x of its width; antennal segments 38; length of scape 1.2x of its width, pedicel as long as wide, length of F1- F4 :3.4x: F5-F9 3x: F5-F9 2.8x: F10 -F13 2.2x: F14 -F26 2x: F27- F28: 2.6x: F29: 2.3x: F30 -F34 :2x: F35: 1.6x: F36 3.5x of their widths respectively.

**Mesosoma:** Length of mesosoma 2.6x of its width and 2.8x of its height; dorsal surface of pronotum smooth, laterally rugulose punctate; notauli deep, anteriorly crenulate, posteriorly rugose; mesopleuron anteriorly rugose, medially with some crenulation and posteriorly longitudinally striate, metapleuron reticulate and sparsely setose; scutellar sulcus shallow without any carina; scutellum smooth, sides of scutellum rugose; metanotum anteriorly smooth, laterally crenulate; sternulus smooth and shallow; propodeum entirely reticulate rugose.

**Legs:** Hind coxa 1.4x as long as wide; length of hind femur, tibia, and basitarsus 5.7x, 12x, and 1.8x their widths respectively; length of hind tibial spurs 0.28x–0.35x of hind basitarsus.

**Wings:** Length of forewing 2.9x of its width, length of pterostigma 3.3x of its width, length of vein 1-R11.4x

length of pterostigma; vein 3-SR of forewing 1.8x length of r; vein SR1+3-SR curved; r arising 1/3rd of the pterostigma; r: 2-SR:S-R1+3-SR= 10:20:112; 1-CU1: 2-CU1: 3-CU1 = 1:42:15; m-cu and cu-a post furcal; length of hind wing 3.5x of its width; 1-M: 1-r-m: 2-SC+R= 12:28:7.

**Metasoma:** Length of metasoma 3.1x of its width and 2.8x of its height; length of first metasomal tergite 4.3x of its apical width; apical width 2x its basal width; first metasomal tergite smooth apically, medially some striae; dorsope present; spiracles present just middle of first metasomal tergite; second metasomal tergite smooth, long; rest of tergite smooth and sparsely setose; ovipositor very long and pointed, length of ovipositor sheath 0.36x forewing.

**Colour:** Head reddish-brown, eyes greyish, ocelli yellowish, ocellar area reddish, wings hyaline with brown venation, scape, pedicel, F1–F17 segments reddish-yellow, remaining antennal segments dark brown, legs reddish-yellow except tarsus pale yellow and claw dark brown femur, mandibles yellow with black dentation, maxillary and labial palpi yellowish, pronotum, scutellum, propodeum, first metasomal tergite and remaining terga reddish-yellow, ovipositor yellow and ovipositor sheaths dark brown.

**Etymology:** The new species is named after the red colour of the body of the type specimen.

Male: Unknown

Host: Unknown

**Diagnosis:** The new species *Meteorus rubrum* Ahmed & Shamim, sp. nov. closely resembles with *Meteorus dichomeridis* (Wilkinson, 1930). It, however, differs from this species in certain peculiar characters which are as follows:

Meteorus dichomeridis Wilkinson, 1930	Meteorus rubrum Ahmed & Shamim, sp. nov.
Antennal segments 26–28	Antennal segments 38
Vein 3-SR of forewing equal to r	Vein 3-SR of forewing 1.8x length of r
First metasomal tergite 2x its apical width	First metasomal tergite 4.3x its apical width
Face minutely punctate and aciculate	Face rugose and densely setose

*Meteorus rubrum* Ahmed & Shamim, sp. nov. also closely resembles *Meteorus kotanni* (Maeto, 1986); however, it differs as follows:

Meteorus kotanni Maeto, 1986	<i>Meteorus rubrum</i> Ahmed & Shamim, sp. nov.
Antennal segments 41	Antennal segments 38
Vertex punctate	Vertex smooth and densely setose
Propodeum with median longitudinal carina anteriorly and transverse carina posteriorly	Propodeum entirely reticulate rugose
First metasomal tergite apically reticulate rugose, medially longitudinally striate rugose	First metasomal tergite apically smooth, medially some striae

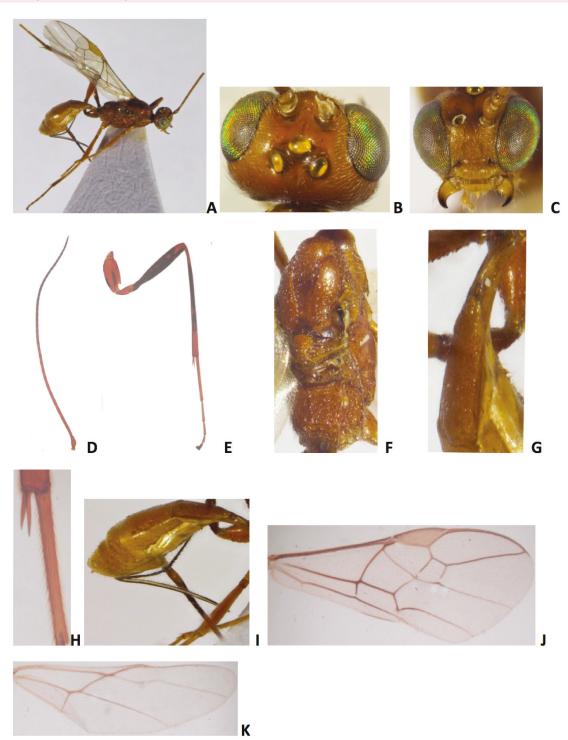


Image 1 A–K. Female *Meteorus rubrum* Ahmed & Shamim, sp. nov.: A–Habitus | B–Dorsal head | C–Frontal head | D–Antenna | E–Hind leg | F–Mesosoma dorso-lateral | G–First metasomal tergite | H–Tibial spurs | I–Metasoma lateral | J–Forewing | K–Hindwing. © Zaheer Ahmed.

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#### New species of braconid wasp

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Short Communications

#### Occurrence of mammalian small carnivores in Kalakad-Mundanthurai Tiger Reserve,

Western Ghats, India – A. Venkatesh, N. Sridharan, S. Agnes Jeya Packiavathi & K. Muthamizh Selvan, Pp. 17984– 17989

Changed avian assemblage of Savitribai Phule Pune University campus in last four decades – Kiran Choudaj & Varsha Wankhade, Pp. 17990–17998

Sandracottus vijayakumari (Coleoptera: Dytiscidae), a new aquatic beetle species from landslide hit area of Nelliyampathy Forest Range, Western Ghats, Kerala, India – P.P. Anand, P.P. Ashiq, M. Smitha, M. Adhithya, T. Tibin & V. Suresh, Pp. 17999–18003

The genus Basiria Siddiqi, 1959 (Nematoda: Tylenchidae) from Dezful region, Iran – Manouchehr Hosseinvand, Ali Eskandari & Reza Ghaderi, Pp. 18004–18010

A new species of braconid wasp *Meteorus* Haliday (Hymenoptera: Braconidae: Meteorinae) from India

- Zaheer Ahmed, Altaf Hussain Mir & Mohammad Shamim, Pp. 18011-18014

Addition of four woodlice species (Crustacea: Isopoda) to the checklist of Iranian Oniscidea – Yaser Bakhshi, Saber Sadeghi, Hamid Darvishnia & Meysam Dashan, Pp. 18015–18019

Catalogue of selected insect groups of Lalwan Community Reserve and Ranjit Sagar Conservation Reserve, Punjab, India

 Amar Paul Singh, Agni Chandra, Virendra Prasad Uniyal & Bhupendra Singh Adhikari, Pp. 18020–18029

Potential phytophagous insects of *Pteridium revolutum* (Blume) Nakai, an invasive fern – M.S. Arjun & S. Gopakumar, Pp. 18030–18034

#### Notes

Freshwater medusae Limnocnida indica Annandale, 1911 in the Cauvery Wildlife Sanctuary, Dubare Reserve Forest and Shivanasamudram in Karnataka, India, with a commentary note on the exotic Craspedacusta sowerbii Lankester, 1880 – Naren Sreenivasan & Joshua Barton, Pp. 18035–18038

Actinor radians (Moore, 1878) (Hesperiidae: Hesperiinae: Aeromachini): addition to the butterfly fauna of Haryana, India

- Bitupan Boruah, Rajesh Chahal & Abhijit Das, Pp. 18039-18041

Rediscovery of the rare Desert Grizzled Skipper Spialia doris evanida Butler, 1880 (Hesperiidae: Pyrginae) from the Thar Desert, Rajasthan, India – Shyam Sundar Meena, Anil Tripathi, Vijay Kumar Koli & M. Akram Awan, Pp. 18042–18044

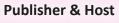
Habitat association and hybridization in woodbrowns (*Lethe nicetas, L. sidonis, & L. dakwania*) (Lepidoptera: Nymphalidae: Satyrinae) in Kedarnath Musk Deer Reserve, western Himalaya

– Arun Pratap Singh & Tribhuwan Singh, Pp. 18045–18049

Begonia flaviflora Hara (Begoniaceae): a new record to the flora of Bhutan – Phub Gyeltshen, Sherab Jamtsho, Sangay Wangchuk & Dhan Bahadur Subba, Pp. 18050– 18053

Revisiting the taxonomy of *Strobilanthes lawsonii* and *S. pushpangadanii* (Acanthaceae), two endemic taxa of Western Ghats, India

 Blessy Cherian, K.M. Prabhukumar, R. Jagadeesan, V.V. Naveen Kumar & Indira Balachandran, Pp. 18054–18058





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#### Article

Decline of White-throated Bushchat *Saxicola insignis* Gray J.E. & J.R. Gray, 1847 (Aves: Passeriformes: Muscicapidae) in Nepal: implications on its global status – Hem Sagar Baral, Tek Raj Bhatt, Bed Kumar Dhakal, Dhiraj Chaudhary, Hemanta Kumar Yadav, Laxman Prasad Poudyal, Hathan Chaudhary, Pradeep Raj Joshi, Carol Inskipp & Rajan Amin, Pp. 17847–17855

#### **Conservation Application**

Relocation of a GPS collared conflict Sloth Bear *Melursus ursinus* (Mammalia: Carnivora) in Karnataka, Indiat

 Attur Shanmugam Arun, Shanmugavelu Swaminathan, Yogaraj Pannerselvam, Thomas Robert Sharp, Sydney Rae Stephens, Kartick Satyanarayan & Geeta Seshamani, Pp. 17856– 17864

#### Communications

Not all gone: the rediscovery of Jaguar (Carnivora: Felidae: Panthera onca) and records of threatened monkeys (Primates: Mammalia) in the Magdalena River Valley of Caldas Department in Colombia, a call for their conservation

– Leonardo Mendieta-Giraldo, Sergio Escobar-Lasso, Esteban Grajales-Suaza & José F. González-Maya, Pp. 17865–17874

First confirmed sightings of Blue Whales Balaenoptera musculus Linnaeus, 1758 (Mammalia: Cetartiodactyla: Balaenopteridae) in the Philippines since the 19th century – Jo Marie Vera Acebes, Joshua Neal Silberg, Timothy John Gardner, Edna Rex Sabater, Angelico Jose Cavada Tiongson, Patricia Dumandan, Diana Maria Margarita Verdote, Christine Louise Emata, Jean Utzurrum & Arnel Andrew Yaptinchay, Pp. 17875–17888

Parasitic infection in captive wild mammals and birds in Bangabandhu Sheikh Mujib Safari Park, Cox's Bazar, Bangladesh

- M. Najmul Hossain, Anita Rani Dey, Nurjahan Begum & Thahsin Farjana, Pp. 17889-17894

A rapid assessment of waterbirds and the mangrove status in the Menabe Antimena Protected Area, Madagascar

- Christoph Zöckler, Solofo Ndrina Razanamaheninina & Matthias Markolf, Pp. 17895-17905

An appraisal of avian species diversity in and around Purulia Town, West Bengal, India – Swastik Mahato, Sudipta Mandal & Dipanwita Das, Pp. 17906–17917

An annotated checklist of amphibians in and around Dampa Tiger Reserve, Mizoram, India – Ht. Decemson, Sushanto Gouda, Lalbiakzuala, Lalmuansanga, Gospel Zothanmawia Hmar, Mathipi Vabeiryureilai & H.T. Lalremsanga, Pp. 17918–17929

Redescription of the bug Aschistocoris brevicornis (Heteroptera: Coreidae) and first report on its life history from northern Maharashtra, India

– Digvijay R. Jadhav, Renuka R. Khairnar, Balasaheb V. Sarode, Swapnil S. Boyane & Hemant V. Ghate, Pp. 17930–17938

A new taxon of *Nacaduba* Moore, 1881 (Lepidoptera: Lycaenidae: Polyommatini) from Agasthyamalais of the Western Ghats, India

- Kalesh Sadasivan, Baiju Kochunarayanan, Rahul Khot & S. Ramasamy Kamaya Naicker, Pp. 17939–17949

# Does the size of the butterfly enhance detection? Factors influencing butterfly detection in species inventory surveys

- Anju Velayudhan, Ashokkumar Mohanarangan, George Chandy & S. Biju, Pp. 17950-17962

Dragonflies and damselflies (Insecta: Odonata) of the Kole Wetlands, central Kerala, India – A. Vivek Chandran, Subin K. Jose & Sujith V. Gopalan, Pp. 17963–17971

Distribution and diversity of climbing species in Papum Pare District of Arunachal Pradesh, India

- Soyala Kashung, Padma Raj Gajurel & Binay Singh, Pp. 17972-17983

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