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## **A new species of the genus *Methocha* LATREILLE (Hymenoptera, Tiphidae, Methochinae) from India**

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**A b s t r a c t :** A new species of tiphid wasp, namely, *Methocha keralaensis* HANIMA & GIRISH KUMAR nov. sp. is described from Kerala, India.

**K e y w o r d s :** Methochinae, *Methocha*, new species, India.

### **Introduction**

The tiphid genus *Methocha* LATREILLE, 1804 contains 88 species worldwide except for the Australian region (KROMBEIN 1982, AGNOLI & ROSA 2011, KIMSEY 2011, TERAYAMA & MITA 2015, NARITA & MITA 2018). Among the 88 species, 38 species are present in Oriental region of which 11 species are from the Indian subcontinent and only 4 species from India (KROMBEIN 1982, AGNOLI & ROSA 2011, NARITA & MITA 2018). The Indian species are: *M. orientalis* (SMITH, 1855) from northern India (exact collection locality unknown), *M. violaceipennis* (CAMERON, 1899) from northern India (Meghalaya: Khasi Hills), *M. bicolor* (CAMERON, 1897) from northern India (West Bengal: Barrackpore), and *M. litoralis* KROMBEIN, 1982 from southern India (Karaikkal) of which the first two are described based on males, third one based on female, and the last one based on both male and female. The females of Methochinae are small, ant-like in appearance, wing-less and males are winged. The members of Methochinae are considered to be parasitizing larvae of Cicindelinae beetles either in the soil or in cavities in twigs (KROMBEIN 1982, RAMOUTAR & LEGRAND 2007). In this paper, we are describing a new species of *Methocha* from Kerala. The affinities of the new species with its nearest relatives are also discussed.

### **Material and Methods**

This study is based on a single female specimen collected from the Kakkattil village of Kozhikode district of Kerala. All efforts to obtain more specimens of this new species from field did not succeed. The specimen is collected from the field by yellow pan trap and mounted on card, labeled, studied and photographed by using a Leica Stereo microscope model LEICA M 205A with LEICA DFC 500 Camera. The holotype is deposited in Western Ghat Regional Centre, Zoological Survey of India, Kozhikode (ZSIK).

The following abbreviations are used in the description:

EL – eye length; F – flagellum; HL – head length; HW – head width; IOD – interocular distance; LOL – lateral ocellar length; OOL – ocellocular length; POL – posterior ocellar length; T – tergum; TL – total body length; WF – width of frons.

The terminology used in the description follows KROMBEIN (1982) and TERAYAMA & MITA (2015).

## Results

### *Methocha keralaensis* HANIMA & GIRISH KUMAR nov.sp. (Figs 1-8)

**Primary type:** Holotype ♀: INDIA, Kerala, Kozhikode district, Kakkattil, 11 m, 26.xi.2018, K. Anju, ZSIK Regd. No. ZSI/WGRC/IR/INV.12007.

**Diagnosis:** This species is characterised by having rounded apical margin of clypeal lobe, POL 1.06x LOL, POL 0.47x OOL, scattered punctures of scutum and scutellum as that of pronotum or propodeum, basal segment of abdomen black, legs black to blackish brown except mid and hind coxae ventrally, all trochanters, base of all tibiae, all tibial spurs and all tarsi brown, vestiture on thoracic dorsum dull white mixed with dark brown.

**Description:** Holotype ♀. Head: Shining, impunctate with setigerous punctures; head width 2.36x least interocular distance (Fig. 3); eye with erect setae; ocelli forming acute triangle (Fig. 4); POL 1.06x LOL and 0.47x OOL; lower front just above antennal toruli weakly coriaceous and above that with few small irregular droplet like structures; clypeus with convex swelling in middle, lower portion with transverse lineolate markings (Fig. 5); mandible long, curved and upper and lower margin with sparse and almost uniformly spaced setae, with ridges or grooves, and with a small subapical teeth; antennae 12-segmented, stout, covered with setae, becoming slightly and very gradually thickened towards apex (Figs. 1 & 2); pedicel not concealed; length of scape: pedicel: F1: F2: F3: F4: F5: F6: F7: F8: F9: F10 = 0.161: 0.087: 0.109: 0.112: 0.111: 0.110: 0.095: 0.088: 0.087: 0.087: 0.089: 0.140 measured in profile view.

**Mesosoma:** Mesosoma smooth and polished with scattered setigerous punctures (Fig. 6); collar irregularly striated, with few reticulations antero-medially; prothorax, mesothorax, and metathorax-propodeum forming three distinct, similar, and almost equal regions; striated constrictions present in between pronotum and mesonotum and also in between mesonotum and metanotum; pronotum 0.56x head width and 1.39x propodeal width; disk of scutum 1.47x as wide as long; mesopleuron smooth and with long white setae; propodeum smooth, with setigerous punctures and with few transverse striations towards posterior margin. Legs long, slender and covered with setae, tibial spurs comb-like dorsally.

**Metasoma:** Smooth with scattered setigerous punctures (Fig. 7); metasoma 1.5x as long as mesosoma; T1 0.93x as long as wide and T2 0.63x as long as wide; third to last metasomal tergites and sternites basally bare; apical tergite without pygidium (Fig. 8).

**Colour:** Body black and shining except following parts brown: apex of mandible, five basal segments of antennae, pygidium, and ovipositor. Legs black to blackish brown except mid and hind coxae ventrally, all trochanters, base of all tibiae, all tibial spurs and

all tarsi brown. Body setae silvery white except dorsal aspect dull white mixed with dark brown coloration.

Measurements (mm): HL – 0.769; HW – 0.690; WF – 0.319; EL – 0.421; length of eye seta – 0.037; IOD – 0.292; POL – 0.065; LOL – 0.061; OOL – 0.137; pronotum width – 0.387; propodeal width – 0.278; width of scutum – 0.304; length of scutum – 0.447; length of mesosoma – 1.257; length of metasoma – 1.895; length of T1 – 0.339; length of T2 – 0.388; width of T1 – 0.364; width of T2 – 0.609; TL – 3.672.

Male: Unknown.

**D i s c u s s i o n :** The female of this new species distinctly differs from the female of *Methocha bicolor* (CAMERON, 1897) from India in having: (1) Basal segment of the abdomen black (Basal segment of abdomen is rufous in *M. bicolor*) and (2) Legs black to blackish brown except mid and hind coxae ventrally, all trochanters, base of all tibiae, all tibial spurs and all tarsi brown (Legs black in *M. bicolor*).

This new species also differs from the female *Methocha ceylonica* KROMBEIN, 1982 from Sri Lanka in having: (1) Apical margin of clypeal lobe rounded (in *M. ceylonica*, apical margin of clypeal lobe slightly emarginated); (2) POL 1.06x LOL (in *M. ceylonica*, POL 2x LOL); (3) POL 0.47x OOL (in *M. ceylonica*, POL 1.1x OOL); (4) Scutum and scutellum with scattered punctures as that of pronotum or propodeum (in *M. ceylonica*, scutum and scutellum with more scattered punctures than either pronotum or propodeum); and (5) Vestiture on thoracic dorsum dull white mixed with dark brown (in *M. ceylonica*, vestiture on thoracic dorsum silvery).

**E t y m o l o g y :** The species name is derived from ‘Kerala’ from which the holotype is collected.

**D i s t r i b u t i o n :** India: Kerala.

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### Zusammenfassung

Eine neue Rollwespenart aus der Familie der Tiphidae, *Methocha keralaensis* HANIMA & GIRISH KUMAR nov.sp., aus der Region Kerala in Indien wird beschrieben.

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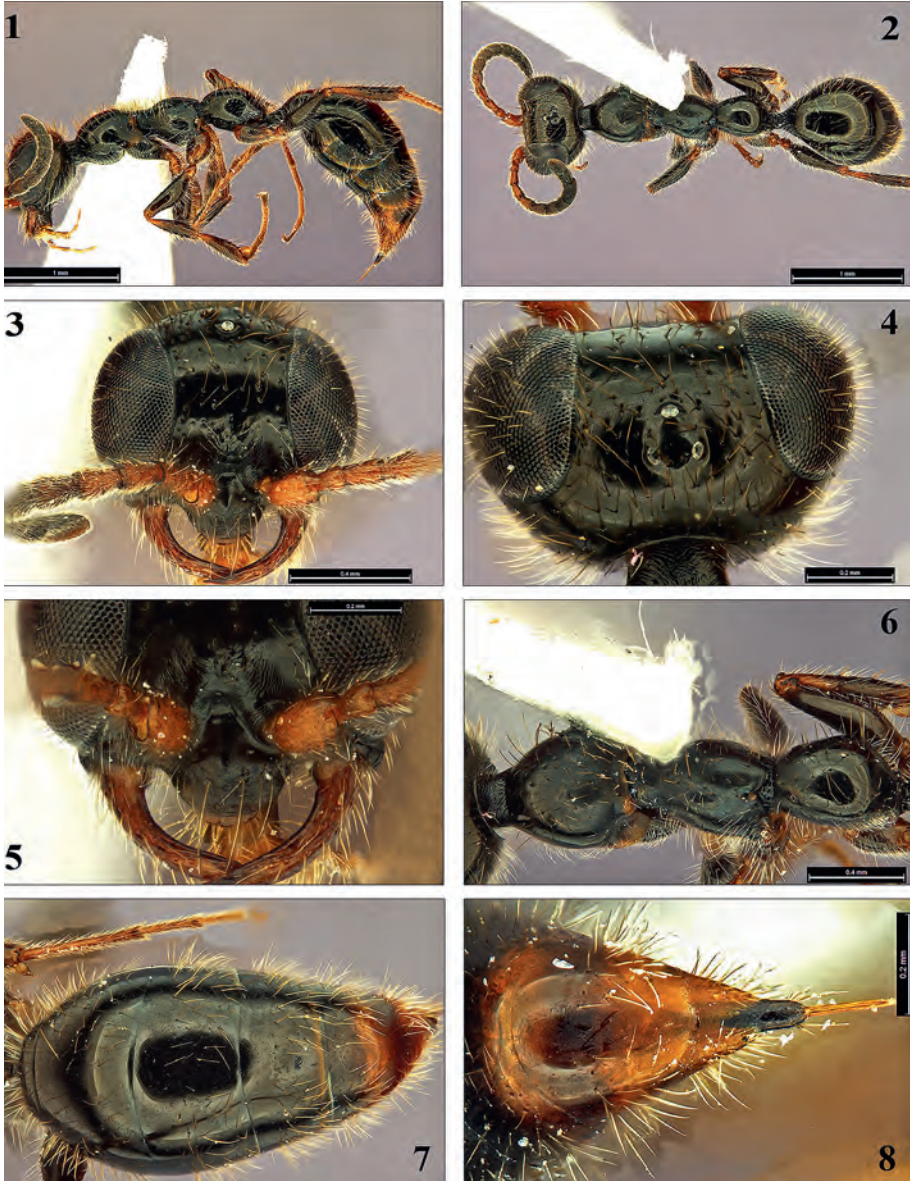
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**Figs 1-8:** *Methocha keralaensis* HANIMA & GIRISH KUMAR nov.sp. (1) habitus in profile view; (2) habitus in dorsal view; (3) head in frontal view; (4) head in dorsal view; (5) lower half of head in frontal view; (6) mesosoma in dorsal view; (7) metasoma in dorsal view; (8) apical metasomal tergite.

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