



## New record of *Pseudozumia indica* (de Saussure, 1855) (Hymenoptera: Vespidae: Eumeninae) from Peninsular India

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**ABSTRACT:** *Pseudozumia indica* (de Saussure) is reported from Peninsular India for the first time with the subspecies *P. indica indica* (de Saussure) and the species is redescribed.

**Keywords:** *Pseudozumia indica indica*, Eumeninae, Vespidae, Peninsular India, Western Ghats, new record, redescription.

### INTRODUCTION

The genus *Pseudozumia* belongs to the subfamily Eumeninae (Hymenoptera: Vespidae). In 1941, Giordani Soika raised this to genus status, which was previously described under the division of genus *Montezumia* de Saussure. *Pseudozumia* is reported only from Oriental Region with five species viz., *P. gracilis* van der Vecht, *P. indica* de Saussure, *P. indosinensis* Giordani Soika, *P. orientalis* (Gribodo) and *P. viridipennis* Giordani Soika of which *P. indica* and *P. indosinensis* are reported from India. *P. indica* is a polytypic species with five subspecies such as *P. indica borneana* Giordani Soika, *P. indica continentalis* Giordani Soika, *P. indica indica* (de Saussure), *P. indica paulonotata* Giordani Soika and *P. indica wallacea* (Meade-Waldo) of which nominotypical subspecies *P. indica indica* is recorded from India.

In India, *P. indica indica* is so far recorded from Sikkim (Bingham, 1897; Giordani Soika, 1941). In the current paper, *P. indica* is reported from Peninsular India for the first time with the subspecies *P. indica indica*. As the original description is inadequate for accurate identification, the species is redescribed based on the collection from Southern Western Ghats.

The studied specimen was kept in the Department of Zoology, Malabar Christian College (DZMCC), but eventually will be transferred to the Hymenoptera Section of the Zoological Survey of India, Kolkata (NZC).

### MATERIAL AND METHODS

The present study is based on a collection from Arippara (11.42°N 76.04°E), hill side valley of Vellarimala, Kozhikode district, Kerala part of Western Ghats.

*Abbreviations used for the Museums:* MRSN = Museo Regionale di Scienze Naturali, Torino, Italy.

*Abbreviations used for the terms:* OOL = Ocello ocular length; IOL = Distance between two lateral ocelli; IAL = inter antennal distance; AEL = distance between antenna and eye; IEL = distance between eyes; F1, F2, F10 = Flagellomeres 1, 2 & 10; H = Head; M = Mesosoma; POL = Post ocellar distance; S1 = Metasomal sterna 1; T1-T2 = Metasomal terga 1 to 2.

### RESULTS AND DISCUSSION

#### *Pseudozumia indica indica* (de Saussure, 1855)

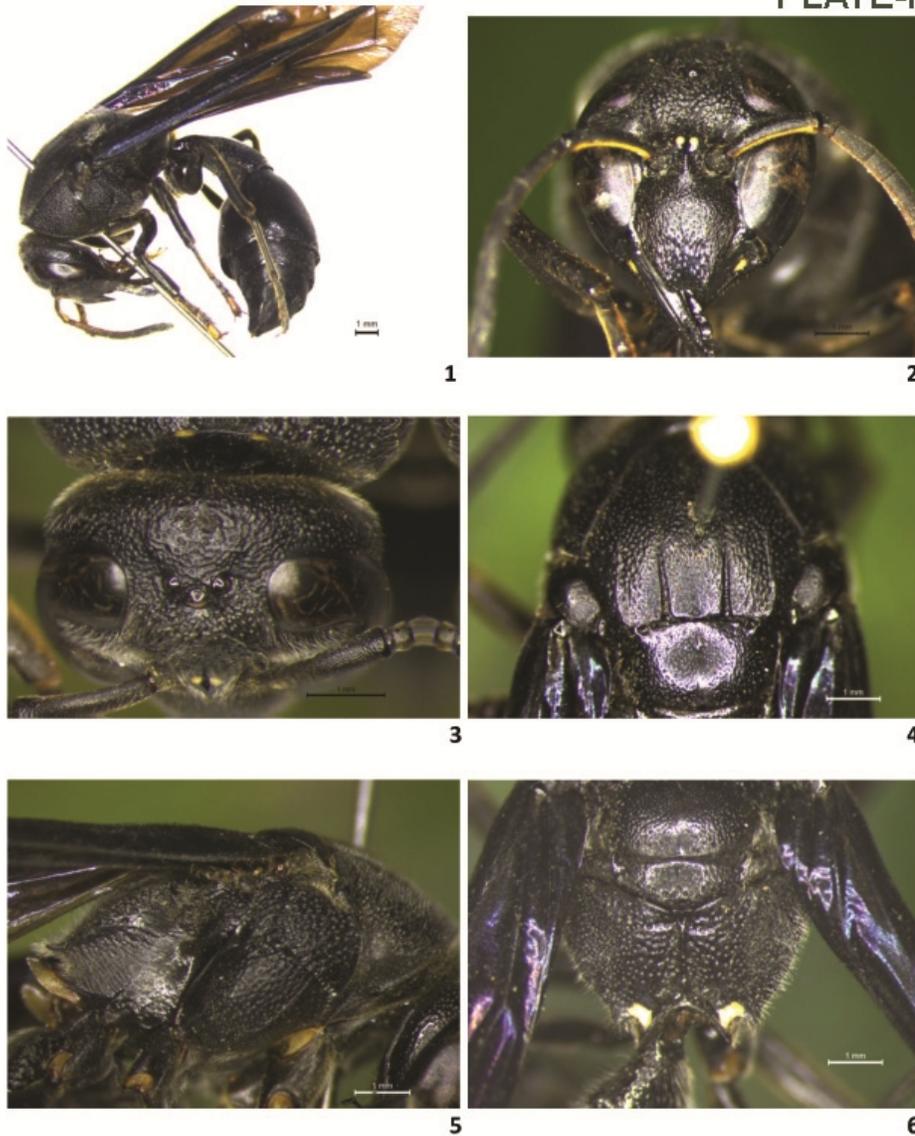
*Montezumia indica* de Saussure, 1855: 167, pl. 9 figs. 4, 4a, female (in division *Parazumia*), "Java" (lectotype, MRSN); Smith, 1859: 19 (India); Bingham, 1897: 350, pl. 2 fig. 10 (Sikkim, Java).

*Pseudozumia indica*: Giordani Soika, 1941: 164 (key), 166 (China: Indo-China; Sikkim).

*Pseudozumia indica indica*: van der Vecht, 1963: 42, fig. 2e (Java; Bali).

**Redescription: Female** (Image 1): body length (H+M+T1+T2) 17.8 mm; forewing length 17 mm.

PLATE-I



Images 1-6. *Pseudozumia indica indica* (de Saussure) Female. 1. Body profile; 2. Head front view; 3. Head dorsal view; 4. Mesosoma dorsal view showing mesoscutum & scutellum; 5. Mesosoma lateral view; 6. scutellum, metanotum & propodeum.

PLATE- II



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Images 7-12. *Pseudozumia indica indica* (de Saussure) Female. 7. Posterior portion of mesosoma & metasomal tergum 1 in lateral view; 8. Fore wing; 9. Hind wing; 10. Apical half of metasomal sternum; 11. Metasomal tergum 1 dorsal view; 12. Metasoma.

Body black with following pale yellow markings: a spot at base of mandible, antennal scape ventrally, a pair of small spots on inter antennal space and anterior face of pronotum at centre, a spot on posteriolateral corner of propodeum near to dentiform projection.

**Head:** 1.1x wide as long in front view (Image 2); mandible pentadentate, smooth with sparse short golden hairs; clypeus slightly longer than wide with less emargination at apex, finely punctate with fine longitudinal striations and sparse short white hairs; inter antennal space smooth, longitudinally humped; ocular sinus finely punctate; frons rugosoreticulate, diameter of punctures 3x interspaces, with median groove above inter antennal space; gena and vertex with large variable shallow punctures; OOL same as IOL; IOL 1.3x as POL; IAL 2.5x AEL; IEL at vertex 0.8x as that at clypeus; vertex (Image 3) with a pair of median deep fovea above lateral ocelli; frons and vertex with sparse short white hairs. Antenna long, slender, scape finely punctate 2.2x F1, F1 2x long as wide, antennomeres are of equal width except F10, F10 1.3x long as wide.

**Mesosoma** (Image 5): pronotum dorsally with large shallow punctures, diameter of punctures 3.6x interspaces, interspaces with fine punctures; anterior face of pronotum smooth; pronotal carina strong at centre, join with an additional carina at lateral corner; pronotal fovea present laterally with transverse striations near to it; pronotum with pretegular carina; mesoscutum (Image 4) with longitudinal carina starts from posteriolateral corner reaches up to level of posterior end of pronotum, parallel to it a wide groove but shorter and closer to carina than from each other; parategula exceeds tegula; axillary fossa deep, slit like; scutellum with short median groove at base; propodeum (Image 6) form a deep cut median groove, heavily punctate, diameter of punctures 1.5x interspaces, punctures near to median groove coalesced to form large fovea, with weak transverse striations laterally, submarginal carina produced and fused with short valvula (image 7); mesopleuron with epicnemial carina; mesoscutum, scutellum and metanotum variably punctate; pronotum laterally, mesoscutum posteriolaterally and tegula finely punctate; mesopleuron and dorsal metapleuron dorsally with large deep punctures; anterior face of pronotum, dorsal metapleuron ventrally, ventral metapleuron and propodeum laterally smooth. Pronotum, lateral side of propodeum, mesopleuron and mesoscutum with short silvery hairs, scutellum and metanotum with long white hairs. Fore wing (image 8) with prestigma 0.85x pterostigma, hind wing as in image 9.

**Metasoma** (Image 12): T1 with longitudinal median striations (image 11), moderately punctate, 0.6x as wide as

T2, 1.5x as long as wide; T2 slightly raised apically like a rim, 1.2x as wide as long, 0.9x as long as T1, finely punctate; apical lamella absent in T1-T2; S1 (Image 10) with transverse striations at base, irregularly rugose posteriorly.

**Material examined:** INDIA: Kerala, Kozhikode district, Arippara, 11.42'N 76.04'E, Hill stream side, 1F, 9.v.2013, Coll. K.P.Mohammed Shareef.

**Distribution:** India: Kerala (new record), Sikkim. Elsewhere: Sri Lanka, China, Taiwan, Malaysia, Vietnam, Indonesia.

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