

*Rec. zool. Surv. India* : 108(Part-2) : 123-128, 2008

## A STUDY ON THE TAXONOMY OF THE RARE GENUS *PHILOMIDES* HALIDAY (HYMENOPTERA : PERILAMPIDAE) OF INDIAN SUBCONTINENT

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### INTRODUCTION

Haliday (1862) erected the genus *Philomides* based on the type species *Philomides paphius* Haliday. This rare genus comes under the subfamily Philomidinae. Boucek (1978) included Philomidinae under Eucharitidae. But Heraty (2002) excluded it from Eucharitidae *s. s.* According to the latest classification (Noyes, 2006) Philomidinae comes under Perilampidae. They are parasites of ground or twig-nesting bees (Michener, 1969; Darling, 1992). The genus *Philomides* Haliday consists of 8 species from all over the world of which 2 species were reported from Oriental Region including one species from Indian subcontinent. These 8 species are *P. abercomensis* Risbec and *P. matallicus* Risbec from Zambia, *P. aethiopicus* Masi from Ethiopia, *P. flavicollis* Cameron from Gibraltar, *P. frater* Masi from Taiwan, *P. gigantea* (Risbec) from Senagal, *P. hoggariensis* Ferriere from Algeria, and *P. paphius* Halidae from Albania, Caucasus (Kavkaz), Cyprus, Europe, Greece, India (Karnataka), Italy (Sicily), Kazakhstan, Russia (Daghestan ASSR), Spain, Turkmenistan and Jugoslavia (Noyes, 2006). In this paper one new species is described from India (Kerala). Holotype is deposited at the Western Ghats Field Research Station, Zoological Survey of India, Kozhikode (ZSIK).

The following abbreviations are used in the text : MV-Marginal vein; NZSI-'National Zoological Collections' of Zoological Survey of India, Kolkata; OOL-Ocellocular distance; PMV-Postmarginal vein; POL-Postocellar distance; ZSIK-Western Ghats Field Research Station, Zoological Survey of India, Kozhikode.

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### 1. *Philomides paphius* Haliday

(Fig. 1)

1862. *Philomides paphius* Haliday. *Ann. de la Soc. Ent. De France*, (4) 2 : 116.
1891. *Sternodes pusateri* De Stefani. *Naturalista Siciliano* 10 : 118. Synonymised by Ruschka (1924) : 82-96.
1898. *Destefania pusateri* (De Stefani). Dalla torre; *Cat. Hym. Hucusque des. syst. et. Syn. V. Chalc. et Proct.* 359. new comb. Synonymised by Ruschka (1924) : 82-96. Additional citation : 1989. *Philomides paphius* Haliday. Narendran *et al. J. Bombay Nat. Hist. Soc.*, 86(2) : 263-266. Redescription, female. (Plesiotype examined).

**Diagnosis** : Female : Ochraceous yellow, with following parts otherwise : a patch near and in between ocelli black; eyes black; small black patch on each side of mesoscutum, a small black patch on mesoscutum posteriorly; a black patch on base of scutellum; scutellar horn black; metanotum, propodeum, propleuron and metapleuron completely black; mesopleuron black except anterodorsal area; black patches on ventral middle regions and dorsal middle regions of gaster; scrobe with median black colour. Antennal scape not reaching front ocellus; mesonotum with parallel notaulices; scutellum projecting posteriorly; punctures close and interstices smooth on mesoscutum and carinate on scutellum; forewing with a brown infuscation near apical region; hind femora sparsely pitted; gaster distinctly shorter than thorax; apical tergites with microsculptures.

**Biology** : Unknown.

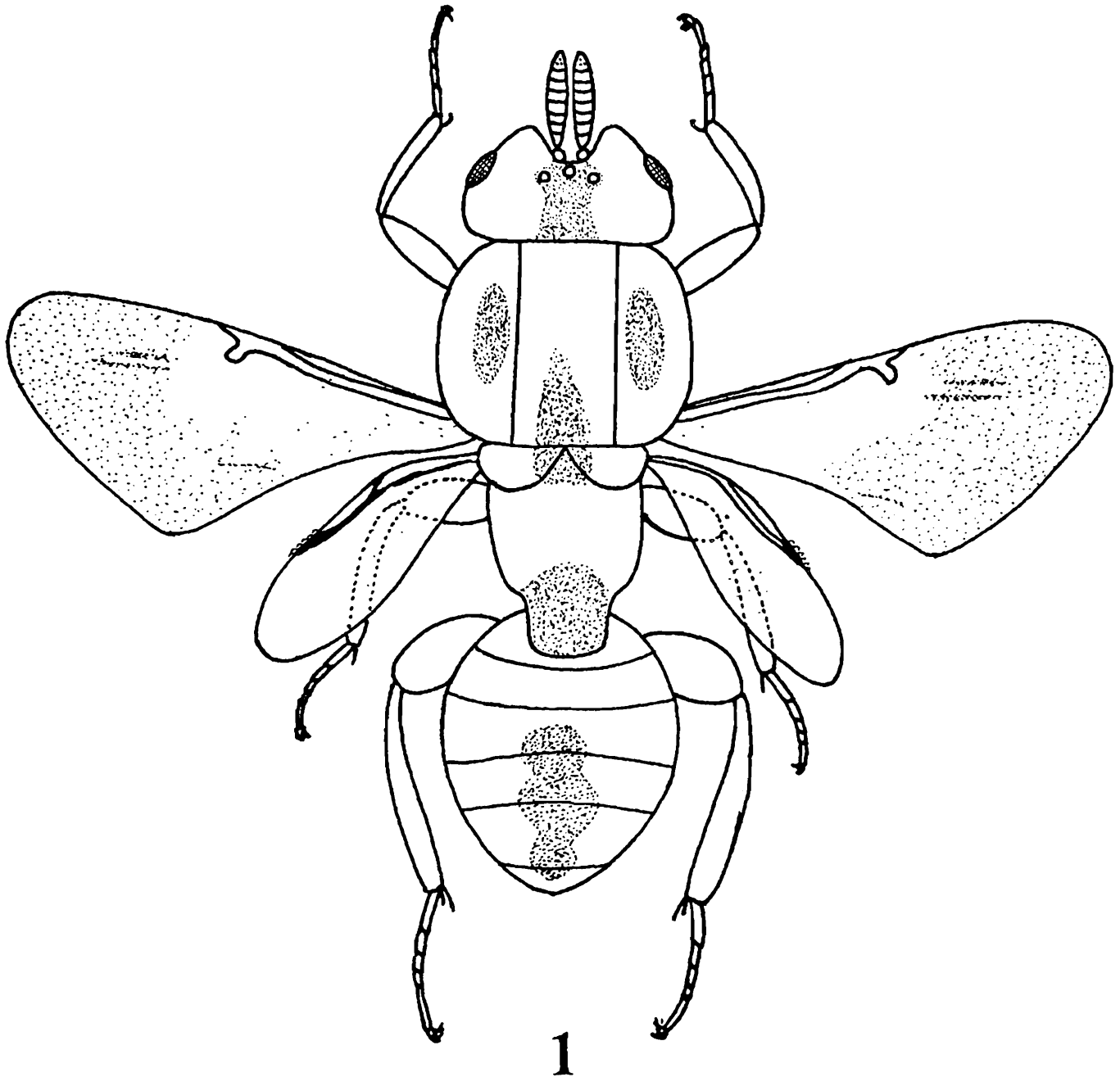
**Material examined** : Plesiotype Female : INDIA : Karnataka, Bangalore; 20.vi.1976; Coll. Unknown; 10071/H3 (NZSI).

### 2. *Philomides indicus* Girish Kumar and Narendran sp. nov.

(Figs. 2-4)

**Holotype** : Female : Length 7.50 mm.; body ochraceous yellow with following parts otherwise : mandibles black except at middle brown; lower face including clypeus, passing through middle to inner surface of anterior scrobe, encircles ocellar areas to vertex and occiput black; eyes pale black; antenna yellowish brown; sides of temple, mesoscutum except lateral side, scutellum including scutellar horn except a narrow portion on lateral part of scutellum, metanotum and propodeum complete, at lateral and lower margins of prepectus, propleuron, mesopleuron and metapleuron complete, a broad band on dorsal and ventral regions of gaster black except lateral and anterior portions; fore coxa yellowish brown; meso and metatibial spur and claws brown; wings yellowish hyaline with pale brown infumation on distal half; venation brown, pubescence golden yellow.

**Head** : Relative measurements of OOL : POL = 64 : 60 (Fig. 4); frontogenal sulcus distinct but not carinate; frons convex on anterior dorsal part; antennal scape not reaching front ocellus (Fig. 3); antenna short and very much thickened.

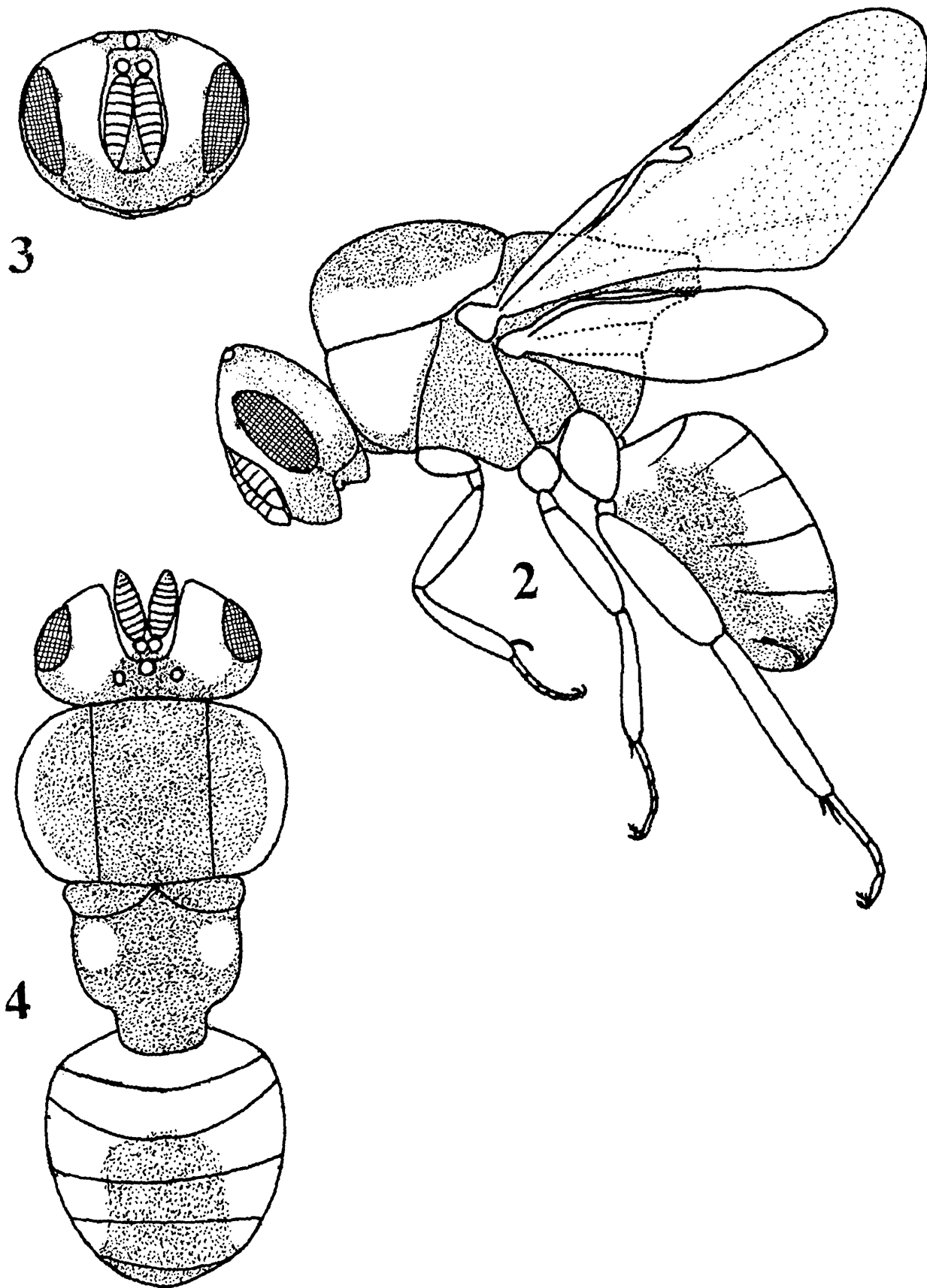


**Fig. 1 :** *Philomides paphius* Haliday Female. Body profile.

*Thorax* : Extremely wide and convex, pronotum not visible from above; mesonotum with parallel notaulices; scutellum projecting posteriorly; punctures close and interstices smooth on mesoscutum and carinate on scutellum; relative measurements of veins : PMV : MV = 30 : 45; stigmal 30. Hind femora 3.30x its maximum width, sparsely pitted, interstices smooth, pits rather deep.

*Gaster* : Distinctly shorter than thorax (35 : 45) (Fig. 4), first two tergites smooth, rest with microsculptures, ovipositor sheath and epipygium not visible from dorsal side.

*Male* : Unknown.



Figs. 2-4 : *Philomides indicus* Girish Kumar and Narendran sp. nov. Female.  
2. Body profile; 3. Head front view; 4. Head, thorax and Gaster dorsal view.

*Host* : Unknown.

*Biology* : Unknown.

*Distribution* : India (Kerala).

*Etymology* : The species is named after the country from where the type specimen is collected.

*Material examined* : *Holotype* : Female, INDIA : Kerala; Kozhikode Dt.; Cheruvannur; Rajmohana, K.; 27.xii.2005 (ZSIK).

*Discussion* : This new species is similar to *P. paphius* Haliday but distinctly different in colour patterns as follows : (1). Lower face including clypeus black (In *P. paphius* lower face including clypeus ochraceous yellow); (2). Occiput entirely black (In *P. paphius* occiput ochraceous yellow except a small portion near ocellar area); (3). Mesoscutum black except lateral sides (In *P. paphius* small black patches on each side and posterior portion of mesoscutum); (4). Scutellum including scutellar horn black except a narrow portion on lateral parts of scutellum (In *P. paphius* black patches on base of scutellum and scutellar horn only); (5). Lateral and lower margins of prepectus black (In *P. paphius* prepectus completely ochraceous yellow); (6). Mesopleuron completely black (In *P. paphius* mesopleuron black except anterodorsal area).

## SUMMARY

The genus *Philomides* Haliday is represented by two species in Indian subcontinent. They are *P. paphius* Haliday and *P. indicus* Girish Kumar and Narendran sp. nov. and commented on.

## ACKNOWLEDGEMENTS

We are grateful to the authorities of University of Calicut for providing facilities. The first and third authors are also grateful to Dr. Ramakrishna, Director-in-charge, Zoological Survey of India, Kolkata and Shri C. Radhakrishnan, Officer-in-Charge, Western Ghats Field Research Station, Zoological Survey of India, Kozhikode for providing facilities and encouragements.

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