



Research Article

A new species of *Trimorus* (*Neotrimorus*) (Hymenoptera: Platygasteridae) from Andaman Islands, India

K. VEENAKUMARI, K. RAJMOHANA¹ and PRASHANTH MOHANRAJ

National Bureau of Agriculturally Important Insects, P.B. No. 2491, Hebbal, Bangalore 560 024, India

¹Zoological Survey of India, Western Ghats Regional Centre, Calicut, Kerala 673 006, India

Corresponding Author Email: veenamraj@rediffmail.com

ABSTRACT: *Trimorus* (*Neotrimorus*) *ferrari* sp. nov. (Hymenoptera: Platygasteridae) is described along with images from the Andaman islands. This is the third species described in this subgenus from India. All species in this genus are known to be parasitoids of eggs of carabid beetles. A key to subgenera of *Trimorus* and a key to species of *Neotrimorus* are provided.

KEY WORDS: *Trimorus*, *Neotrimorus*, Andaman islands, India

(Article chronicle: Received: 20-08-2013; Revised: 20-12-2013; Accepted: 28-12-2013)

INTRODUCTION

The subfamily Teleasinae under Platygasteridae is represented by twelve genera of which four genera - *Trimorus* Förster, *Xenomerus* Walker, *Odontoscelio* Kieffer and *Dvivarnus* Rajmohana and Veenakumari - are known from India (Masner, 1976; Johnson, 1992; Veenakumari, *et al.*, 2011; Johnson, 2013). A new subgenus *Neotrimorus* was erected under *Trimorus* by Rajmohana and Narendran (1997) from India. The presence of a dorsal median spine on the mesoscutellum characterizes this subgenus. Rajmohana and Narendran (1997) described two species under this subgenus, *viz.* *T.* (*Neotrimorus*) *scutellospinosus* and *T.* (*N.*) *spinostratus* from Kerala, India. Miko *et al.* (2010) have stated that basal depressions on the third metasomal sternum are present only in *Xenomerus*, in the subfamily Teleasinae. We have however, noticed that this subgenus too shares this unique character of *Xenomerus*. The presence of a dorsal median spine on mesoscutellum and basal depression on the third metasomal sternum serve as diagnostic characters of this subgenus. We describe a new species, *Trimorus* (*Neotrimorus*) *ferrari* from the Andaman islands.

MATERIALS AND METHODS

Auto Montage version 3.6 using Leica DFC 425 camera and Leica M205A stereomicroscope were used for measurements and digital images. Abbreviations and

morphological terminology used in the text follow Masner (1979, 1980) and Mikó *et al.* (2007, 2010). Specimens were obtained using Malaise traps (MT) and yellow pan traps (YPT). The holotype and four paratypes are deposited at the National Bureau of Agriculturally Important Insects, Bangalore, India and one paratype in National Zoological Collection, at Zoological Survey of India, Calicut.

Abbreviations

Frontal cephalic index (FCI), Lateral cephalic index (LCI), Interorbital space (IOS), Length (L), Breadth (B), Ocular ocellar length (OOL), Post ocellar length (POL), Lateral ocellar line (LOL), A1-A12 antennal segments 1-12, A1 being scape; Metasomal tergites 1-8 (T1-T8), Metasomal sternites (S1-S8).

Trimorus Förster, 1856: 101, 104. Type: *Gryon nanno* Walker, designated by Ashmead (1903).

Trimorus (*Neotrimorus*) Rajmohana and Narendran, 1997:32, 33. Original description. Type: *Trimorus* (*Neotrimorus*) *scutellospinosus* Rajmohana & Narendran, designated by Rajmohana K. (2007). Described as a subgenus of *Trimorus* Förster, keyed.

Diagnosis of *Trimorus* (*Neotrimorus*): Very similar to *Trimorus* but differs in having a dorsal median spine on the mesoscutellum.

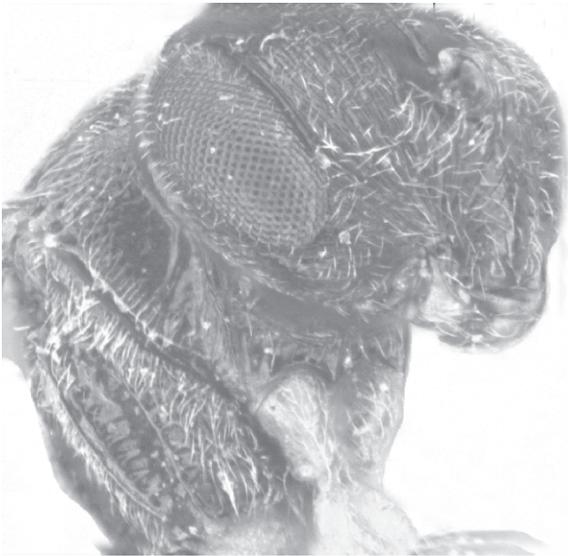


Fig. 2

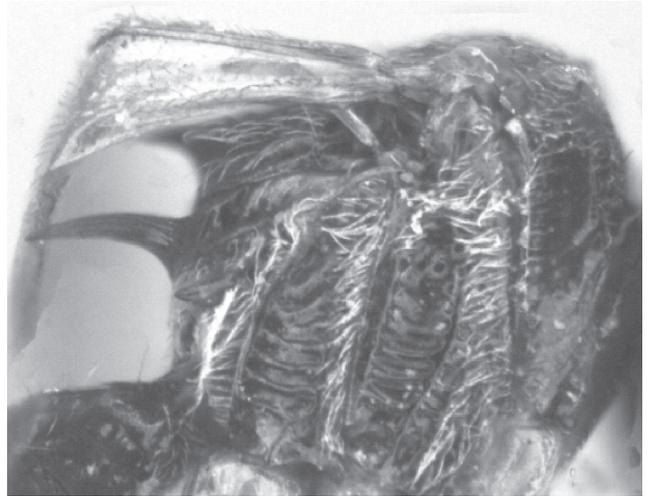


Fig. 6

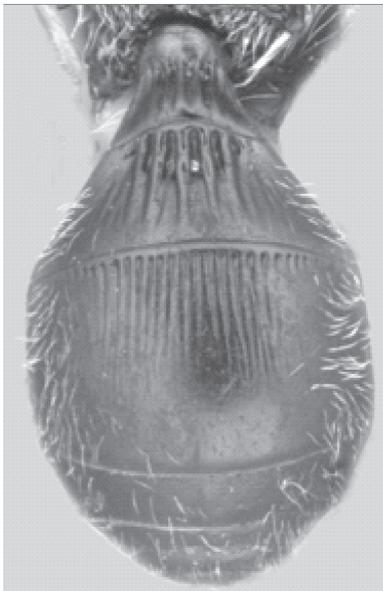


Fig. 3



Fig. 7



Fig. 4



Fig. 8

of T2 (Fig. 3); lateral patch present on T2-T6; T3 costate, costae extending medially up to 0.6x length of tergum; costae on T3 very short sublaterally and absent laterally; posterior one fourth of T3 smooth; T4 reticulate coriaceous anteromedially, rest of T4 and other tergites with no special sculpture; medial patch present on T4, T5, T6; laterosterna broad with dense yellow setae; 2 long white setae present on either side of apical tergite; S3 with basal depressions

(Fig. 6); laterosterna broad with dense yellow setae; length and breadth of metasomal tergites T1-T8 in ratio of 13.0:24.7, 18.2:50.2, 35.4:53.2, 8.3:50.1, 3.2:38.4, 4.6:25.5, 2.0:15.1, 5.7:11.8, respectively.

Female: Not known.

Material examined

Holotype : Male, (Reg. No. ICAR/NBAIL/P180), INDIA: Andaman Islands: Little Andaman, Forest Nursery, MT, (10° 59' N and 92° 53' E), 30.i.2013, (antennae, legs on a card point); **Paratypes** (Reg. No. ICAR/NBAIL/P181, 182, 183, 184), 4 males, same data as that of holotype; (Reg. No. ICAR/NBAIL/P185), 1 male, Andaman Islands: South Andaman, Garacharma, Central Agricultural Research Institute, YPT, (11° 61' N and 92° 71' E), 26.i.2013.

Etymology

Named after Lieutenant Colonel M.L. Ferrar, a Chief Commissioner of the Andaman & Nicobar Islands (1923-1931) whose contribution to the knowledge of the butterflies of Andaman and Nicobar islands remains unrivalled till date.

Comments

This species differs from the other two species of the subgenus *Neotrimorus* in having a long, pointed median spine on mesoscutellum in contrast to a very blunt, stout spine in the other two species. OOL 1.7x longer than POL in *T.(N.) ferrari*, while OOL is equal to POL in the other two described species.

ACKNOWLEDGEMENTS

The authors thank Dr. Abraham Verghese, Director, NBAIL, Bangalore for providing facilities for carrying out this work. We also thank Ms. B.L. Lakshmi, Vinod and V. Shashikala for all help. Literature support by “The Platygastridae Planetary Biodiversity Inventory Project” is acknowledged.

REFERENCE

- Ashmead WH. 1903. Classification of the pointed-tailed wasps, or the superfamily Proctotrypoidea (sic.) – III. *JNY. Entomol Soc.* **11**: 86–99.
- Johnson NF. 1992. Catalog of world Proctotrupeoidea excluding Platygasteridae. *Mem Amer Entomol Inst.* **51**: 1–825.
- Johnson NF. 2013. http://osuc.biosci.ohio-state.edu/hymDB/eol_scelionidae.home accessed on 18.11.2013.
- Masner L. 1976. Revisionary notes and keys to world genera of Scelionidae (Hymenoptera: Proctotrupeoidea). *Mem Entomol Soc Can.* **97**: 1–87.
- Masner L. 1979. Pleural morphology in scelionid wasps (Hymenoptera: Scelionidae) – An aid to higher classification. *Can Entomol.* **111**: 1079–1087.
- Masner L. 1980. Key to genera of Scelionidae of the Holarctic region, with descriptions of new genera and species (Hymenoptera: Proctotrupeoidea). *Mem Entomol Soc Can.* **113**: 1–54.
- Miko I, Masner L, Deans AR. 2010. World revision of *Xenomeres* Walker (Hymenoptera: Platygastridae). *Zootaxa* **2708**: 1–73.
- Miko I, Vilhelmsen L, Johnson NF, Masner L, Penzes Z. 2007. Skeletomusculature of Scelionidae (Hymenoptera: Platygastridae): head and mesosoma. *Zootaxa* **1571**: 1–78.
- Rajmohana K, Narendran TC. 1997. A remarkable new subgenus *Neotrimorus* of *Trimorus* Foerster (Hymenoptera: Scelionidae) from India. *J Adv Zool.* **18**: 32–37.
- Veenakumari K, Rajmohana K, Manickavasagam S, Mohanraj P. 2011. On a new genus of Teleasinae (Hymenoptera: Platygastridae) from India. *Biosystematica.* **5**: 39–46.