



## A review of the genus *Paraleptomenes* Giordani Soika, 1970 (Hymenoptera: Vespidae: Eumeninae: Odynerini) from the Indian subcontinent, with the description of a new species from the eastern Himalayas

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### Abstract

The genus *Paraleptomenes* Giordani Soika, 1970 is reviewed for the Indian subcontinent. A new species *Paraleptomenes darugiriensis* Kumar, Carpenter & Sharma, **sp. nov.** is described. The male of *P. rufoniger* Giordani Soika, 1994 is described for the first time. The distribution records of *P. humbertianus* (de Saussure, 1867), *P. miniatus mephitis* (Cameron, 1901), *P. miniatus miniatus* (de Saussure, 1855), and *P. rufoniger* Giordani Soika, 1994 in the Indian states are augmented. A key to species of the Indian subcontinent and a world checklist of species are provided.

**Key words:** *Paraleptomenes darugiriensis* **sp. nov.**, Indian subcontinent, review, new species, new record, key, checklist

### Introduction

Giordani Soika (1970) described the genus *Paraleptomenes* based on the type species *Paraleptomenes nurseanus* Giordani Soika, 1970. In the tribal classification of Eumeninae of Hermes *et al.* (2013), *Paraleptomenes* belongs to the Odynerini. This genus is distributed primarily in the Oriental Region, with one species also in Pakistan, Iran and Mauritius. Seven species with three additional subspecies are known for this genus, of which five species with three additional subspecies are reported from the Indian subcontinent. In this paper a new species *P. darugiriensis* sp. nov. is described from the eastern Himalayas, a biodiversity hot spot. The male of *P. rufoniger* Giordani Soika, 1994 is described here for the first time. The distribution records of *P. humbertianus* (de Saussure, 1867), *P. miniatus mephitis* (Cameron, 1901), *P. miniatus miniatus* (de Saussure, 1855), and *P. rufoniger* Giordani Soika, 1994 in the Indian states are augmented in this paper. A key to species of the Indian subcontinent and a world checklist of species are also provided here.

### Material and methods

This study is based primarily on the collection in the Hymenoptera Section of the Zoological Survey of India, Kolkata, from various localities of India. The specimens were studied and photographed by using a Leica Stereo microscope with LAS software version 3.6.0. and some photographs were taken by using a scanning electron microscope (Zeiss EVO 18). All the specimens including types were properly preserved and added to the 'National Zoological Collections' of the Zoological Survey of India, Kolkata (NZC). A series of specimens of *Paraleptomenes communis* Giordani Soika, 1994, and *P. miniatus mephitis* (Cameron, 1901) present in American Museum of Natural History, New York, was also studied.

**Abbreviations used for the Museums:** AMNH—American Museum of Natural History, New York, USA;

brownish yellow at middle), parategula, two spots on either side of scutellum; a band on metanotum, a spot on mesepisternum, transverse band on apical margins of T1, T2 & S2; a spot at the apex of fore and middle femora and all tibiae and tarsi. Brown markings are as follows: Mandible except at basal yellow mark and lower side of apical flagellomeres. Wings infuscate, stigma fuscous.

**Size** (H+M+T1+T2): *Male* 6.5 mm.

*Female*. Clypeus of female with large punctures, in part elongated in the longitudinal direction, carina well developed; posterior surface of propodeum not smooth medially, entirely punctate with punctures more or less large. Other characters are as those of male. Colour similar to male except clypeus black with two large yellow spots at base.

**Size** (H+M+T1+T2). *Female*. 7–7.5 mm.

**Material examined**. INDIA. Arunachal Pradesh, Tawang distr., Lumla, 1♂, 1.x.2009, Coll. Kailash Chandra & Party, NZC No. 14717/H3.

**Distribution**. India (\*Arunachal Pradesh, Sikkim).

**Remarks**. The male of this species is described here for the first time. No female specimen was available for our studies; hence the description of the female was taken from Giordani Soika, 1994.

### Checklist of World species of *Paraleptomenes* Giordani Soika, 1970

1. *P. communis* Giordani Soika, 1994—India (Kerala), Thailand, Malaysia, Singapore, Indonesia (Java, Bali).
2. *P. darugiriensis* **sp. nov.**—India (Arunachal Pradesh, Assam, Meghalaya, Sikkim, West Bengal).
3. *P. guichardi* Giordani Soika, 1994—Malaysia (Borneo: Sarawak).
4. *P. humberianus* (de Saussure, 1867)—India (\*Andhra Pradesh, Kerala, \*Odisha, Tamil Nadu), Sri Lanka.
5. *P. kosempoensis* (Schulthess, 1934)—Taiwan.
6. *P. miniatus* (de Saussure, 1855)
  - 6a. *P. miniatus mephitis* (Cameron, 1901)—India (\*Kerala, Maharashtra, Odisha, \*Pondicherry, \*Punjab, \*Rajasthan, Tamil Nadu, West Bengal), Sri Lanka.
  - 6b. *P. miniatus miniatus* (de Saussure, 1855)—India (Delhi, Gujarat, Maharashtra, Sikkim, \*Uttarakhand, Uttar Pradesh, \*West Bengal), Pakistan (Multan), Iran, Mauritius.
  - 6c. *P. miniatus nigrithorax* Giordani Soika, 1994—India (West Bengal).
7. *P. nurseanus* Giordani Soika, 1970
  - 7a. *P. nurseanus montanus* Giordani Soika, 1994—India (Tamil Nadu).
  - 7b. *P. nurseanus nurseanus* Giordani Soika, 1970—India (Gujarat).
8. *P. rufoniger* Giordani Soika, 1994—India (\*Arunachal Pradesh, Sikkim).

### Acknowledgements

The authors are grateful to K. Venkataraman, Director, Zoological Survey of India, Kolkata and Kailash Chandra, Scientist-F & Divisional-in-Charge of Entomology Division (A), Zoological Survey of India, Kolkata for providing facilities and encouragement. We also thank to Arkady S. Lelej, Vladivostok, Russia, who edited the manuscript and whose suggested improvements are appreciated. The authors sincerely thank Mridul Purakayastha, IT Assistant (Data Entry), ENVIS Centre on Faunal Diversity, Zoological Survey of India, Kolkata for editing photos.

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