



Notes on the Indian species of the genus *Platythyrea* (Hymenoptera: Formicidae) with an identification key

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ABSTRACT: This paper provides a revised key (after Brown, 1975) to the Indian species of the ant genus *Platythyrea*. The present status of the Indian species of the genus is discussed. © 2006 Association for Advancement of Entomology

KEYWORDS: Hymenoptera, Formicidae, Ponerinae, *Platythyrea*

INTRODUCTION

The ant genus *Platythyrea* was described by Roger in 1863. Bingham (1903) subsequently designated *Pachycondyla punctata* Smith from St. Domingo (U.S.A.). Among the genera of the subfamily Ponerinae, *Platythyrea* is distinguishable by the presence of two pectinate spurs on hind tibia. This arboreal ant genus is represented from world tropics by 37 species including a fossil species, *P. primaeva* W. M. Wheeler (Bolton, 1995). Latke (2003) described three new fossil species, viz., *P. dentata*, *P. procera* and *P. scalprum* from Dominican Amber collection of the American Museum of Natural History, taking the total number of species to 40.

Taxonomy

1. *Platythyrea nicobarensis* Forel

Platythyrea nicobarensis Forel, 1905, *Annales de la Societe Entomologique de Belgique* 49: 155–185. [Not examined]

Distribution

India: Nicobar Islands (Forel, 1905).

Comments

Brown (1975) states that this species has elongated head, with deeply excavated posterior margin.

2. *Platythyrea parallela* Smith, F.

Platythyrea parallela Smith, F. 1859. *J. Proc. Linn. Soc. Lon., Zoology* 3: 132-158.

Platythyrea wroughtonii Forel, 1900, *J. Bombay Nat. Hist. Soc.* 13: 315, worker.

Platythyrea wroughtonii r. *victoriae*, Forel, 1900. *J. Bombay Nat. Hist. Soc.* 13: 315-316.

Platythyrea victoriae Bingham, 1903. The Fauna of British India, including Ceylon and Burma. Hymenoptera 2. p. 506. (New status).

Platythyrea wroughtonii r. *victoriae*. Chapmen and Capco, 1951. *Monogr. Inst. Sci. Tech., Manila* (Checklist ants Asia) 1: 49.

Platythyrea wroughtonii r. *victoriae*: Brown, 1975. *Search Agriculture* 5. Entomology (Ithaca) 15:8 (Synonymised with *parallela*).

Platythyrea wroughtonii Brown, 1975. *Search Agriculture* 5. Entomology (Ithaca) 15: 8. (Synonymised with *parallela*).

Distribution

India: Bengal, Chennai Rothney (1889), Western India, Mysore, Travancore (Bingham, 1903) and Bangalore (Brown, 1975).

Material examined

Many workers, India: Bangalore, Sanky Lake, 8-xii-2004, Coli: A. K. Dubey (IWST).

Comments

This is an arboreal species. Individual workers of this species are collected from *Samanea saman* (rain tree).

3. *Platythyrea sagei* Forel

Platythyrea sagei Forel, 1900. *J. Bombay Nat. Hist. Soc.* 13: 315.

Distribution

India: Punjab: Sage, Karnataka: Kanara (Bingham, 1903).

Material examined

Many workers, India: Karnataka: Kudremukh National Park, 3-v-2005, Coll: A. K. Dubey (IWST).

Comments

This species is unique among the known Indian species in having bidentate petiole (Bingham, 1903). Individual workers were found foraging on ground.

Revised key to the valid species from the Indian subcontinent is given below:

Key to the workers of the Indian species of the genus *Platythyrea* Roger

1. Petiole bidentate posteriorly *P. sagei* Forest
- Petiole not bidentate posteriorly 2
2. Head elongate (*Cephalic Index < 77), posterior margin deeply excavated
..... *P. nicobarensis* Forel
- Head not elongate (Cephalic Index > 77), posterior margin shallowly excavated
..... *P. parallela* Smith.

*CI=Head width/Head length $\times 100$

Bingham (1903) was the first systematist who laid the foundation for the taxonomic study of Indian Formicidae. A few publications were brought out by subsequent workers from India but none of them paid attention to update the keys or revise the status of the Indian Ponerinae. Chapman and Capco (1951) considered *P. victoriae* as a race of *P. wroughtonii*. Tiwari (1999) listed two species *P. wroughtonii*, and *P. victoriae* as a race of *P. wroughtonii*. However, *P. victoriae* was raised to the species level by Bingham (1903) and both of them were synonymised with *P. parallela* by Brown (1975). This resulted in much confusion for systematists as the synonymising of the species by Brown (1975) was overlooked by Tiwari (1999). Ali (1991) retained *P. wroughtonii* and *P. victoriae* as separate species following Bingham (1903). The recent catalogue of Bolton (1995) included both species as junior synonyms of *P. parallela* and the same is accepted as Tiwari (1999) did not justify his findings in contrast to Brown (1975) and mentioned that 'no material of this species could be made available for study' from South India. The key was reached as I have come across a few individuals of *P. parallela* collected from Bangalore (India), and *P. sagei* collected from Kudremukh National Park (Karnataka) which are present in Southern India.

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