

Queen of the Army Ant *Aenictus pachycerus* (Hymenoptera, Formicidae, Aenictinae)

by

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ABSTRACT

The queen of *Aenictus pachycerus* has been discovered for the first time. This study provides a detailed description of the queen along with illustrations.

INTRODUCTION

The genus *Aenictus* is well distributed in Afrotropical, Oriental and Indo-Australian regions. It is represented by 113 species and 31 subspecies over the globe (Terayama & Kubota 1993, Bolton 1995, Yamane & Hashimoto 1999). Eighty-two species of these are distributed in the Indo-Australian and Oriental regions. Unfortunately the genus is poorly classified irrespective of revision of the Indo-Australian army ants by Wilson (1964). Myrmecologists have not correlated the worker, male and female castes. A large number of species are still represented by males solely (Table 1) and out of 113 species known, queens of 12 species have been reported so far (Table 2). It may take many more years, before we arrive at stable biological classification depicting natural correlations.

The dichthadiigynes (queens of army ants) are aberrant, wingless females, which have been rarely collected, and most of the studies are based on workers. In the present work, the queen of *Aenictus pachycerus* was collected along with workers. She has been described and illustrated in the following text.

AENICTUS PACHYCERUS SMITH (FIGS. 1-4)

Eciton pachycerus Smith 1858: 153, worker. Type locality: South America [Correction of type locality to India by Bingham, 1903: 21]. [Synonymy, Bolton 1995: 60]

Description of the queen

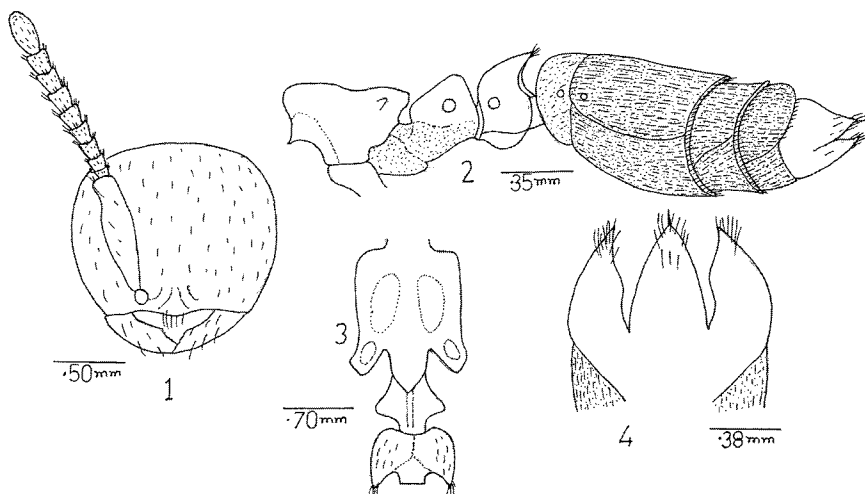
FEMALE (QUEEN). Length 7.26 mm, Head length 1.15 mm, Head width 1.32 mm, Scape length 0.75 mm, Cephalic index 114.7, Scape index 56.81, Alitrunk (mesosoma) length 1.68 mm, Petiole length 0.49 mm, Petiole width 0.66 mm, Petiole height 0.72 mm.

Table 1. Species of *Aenictus* and their distributions.

1. Species known world wide	113
2. Subspecies known world wide	31
3. Species known from Indo-Australian and Oriental regions	82
4. Species known from males only (world wide)	51
5. Species known from worker and queen (world wide)	11
6. Species known from queen only (world wide)	1

Table 2. Species of *Aenictus* and their castes.

1. Species known from Queen	<i>Aenictus abeillei</i> (Andre)
2. Species with workers and queens correlated	<ol style="list-style-type: none"> 1. <i>Aenictus aratus</i> Forel 2. <i>Aenictus asantei</i> Campione <i>et al.</i> 3. <i>Aenictus binghami</i> Forel 4. <i>Aenictus ceylonicus</i> (Mayr) 5. <i>Aenictus congolensis</i> Santschi 6. <i>Aenictus currax</i> Emery 7. <i>Aenictus dlusskyi</i> Arnol'di 8. <i>Aenictus gracilis</i> Emery 9. <i>Aenictus laeviceps</i> (Smith) 10. <i>Aenictus vaucheri</i> Emery 11. <i>Aenictus weissii</i> Santschi

Fig. 1-4. *Aenictus pachycerus* queen. 1, Head in frontal view; 2, Alitrunk, petiole and gaster in profile; 3, Alitrunk and petiole in dorsal view; 4, Hypopygium.

HEAD. Sides slightly rounded, occiput semi-transverse in full face view. Antenna 10 segmented, scape incrassate towards apex. Funicular segments gradually increasing in length from base to apex. Anterior

clypeal margin straight, slightly arched in middle. Frontal carinae distinct, elevated. Parafrontal carinae absent. Mandibles falcate with microscopic denticles. Whole of head except posterior and lateral margins covered with long pilosity and minute pubescence; smooth and shining.

ALITRUNK. Pronotum almost as long as broad with two large lateral excavations with elevated middle portion. Posterior pronotal margins produced in to blunt horns having excavations. Horns diverging towards outer side as compared to lateral margins of pronotum. Mesonotum oval, small; pro-mesonotal suture absent. Metanotal groove broad and shallow. Propodeum sub-trapezoid with prominent angles and lateral sides raised. Basal face deeply grooved in dorsal view, gradually elevating from anterior to posterior side in profile. Propodeal declivity steep in profile. Whole of alitrunk smooth and shining except sides of mesonotum, propodeum micro-reticulate.

PETIOLE. Bilaterally cornulate posteriorly with concave middle surface. In profile the petiole forms an even arch along the anterior border and steep along the posterior border. Petiole dorsum minutely pubescent with semi-erect pilosity on lateral angles, smooth and shining.

GASTER. Second tergite largest. Whole of gaster covered with golden dense pubescence, surface below micro-reticulate. Hypopygium as in Fig. 4. Sting small, exerted. Legs long with femora and tibia clavate towards apex.

COLOR. Reddish brown, much darker on gaster with apical margins of tergites yellowish.

Specimens examined = 20 workers, 1 female, New Forest, DehraDun, 660 mtrs., Uttranachal, India, 17/VI/2002, collected by H. Bharti leg.

DISCUSSION

The colony was collected on a cloudy morning. The queen was moving in the middle of a column of workers. The colony was migrating from a nest under bricks. Some workers were collected from an animal carcass a few yards away, where they carried Diptera larvae.

Among the *pachycerus* group (Wilson 1964), which comprises of *A. aratus*, *A. chapmani*, *A. dentatus*, *A. pachycerus*, *A. philiporum*, *A. powersi*, *A. punensis* and *A. reyesi*, only the queen of *A. aratus* has been reported. But a detailed description had not been provided, only distinct morphological features were illustrated in Wilson (1964). The present text helps in future studies as it provides the detailed description of a queen of the *pachycerus* group.

Distribution: India, Srilanka.

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