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

by

Himender Bharti

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.

Department of Zoology, Punjabi University, Patiala, Punjab. 147 002 INDIA. Email: hbharti@sancharnet.in or himender_bharti@yahoo.com.
Table 1. Species of *Aenictus* and their distributions.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Count</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Species known worldwide</td>
<td>113</td>
</tr>
<tr>
<td>2</td>
<td>Subspecies known worldwide</td>
<td>31</td>
</tr>
<tr>
<td>3</td>
<td>Species known from Indo-Australian and Oriental regions</td>
<td>82</td>
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<tr>
<td>4</td>
<td>Species known from males only (world wide)</td>
<td>51</td>
</tr>
<tr>
<td>5</td>
<td>Species known from worker and queen (world wide)</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>Species known from queen only (world wide)</td>
<td>1</td>
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Table 2. Species of *Aenictus* and their castes.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Species</th>
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<tbody>
<tr>
<td>1</td>
<td>Species known from Queen</td>
<td><em>Aenictus abeillei</em> (Andre)</td>
</tr>
<tr>
<td>2</td>
<td>Species with workers and queens correlated</td>
<td>1. <em>Aenictus aratus</em> Forel</td>
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<td>2. <em>Aenictus asantei</em> Campione et al.</td>
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<td>3. <em>Aenictus binghami</em> Forel</td>
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<td>4. <em>Aenictus ceylonicus</em> (Mayr)</td>
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<td></td>
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<td>5. <em>Aenictus congolensis</em> Santschi</td>
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<td>6. <em>Aenictus currax</em> Emery</td>
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<td></td>
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<td>7. <em>Aenictus dlusskyi</em> Arnol'di</td>
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<td></td>
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<td>8. <em>Aenictus gracilis</em> Emery</td>
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<td></td>
<td></td>
<td>9. <em>Aenictus laeviceps</em> (Smith)</td>
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<td></td>
<td></td>
<td>10. <em>Aenictus vaucheri</em> Emery</td>
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<td></td>
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<td>11. <em>Aenictus weissi</em> Santschi</td>
</tr>
</tbody>
</table>

![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.](image)

HEAD. Sides slightly rounded, occiput semi-transverse in full face view. Antenna 10 segmented, scape incrasrate 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
shinning.

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 shinning 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
shinning.

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,

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 (Wilson1964), which comprises of A.
aratus, A. chapmani, A. dentatus, A. pachycerus, A. philiporum, A.
powersi, A. punensis and A. reyest, 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 descrip-
tion of a queen of the pachycerus group.

Distribution: India, Srilanka.
ACKNOWLEDGMENTS

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REFERENCES


