ASIAN MYRMECOLOGY — Volume 19, e019003, 2026
ISSN 1985-1944 | eISSN: 2462-2362 DOI: 10.20362/am.019003

Two new species of army ants belonging to the genus *Aenictus* Shuckard 1840 (Hymenoptera: Formicidae) from the Eastern Ghats of India

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ABSTRACT. Two new species of the army ant genus *Aenictus* (Shuckard, 1840), *Aenictus chittoorensis* **sp. nov.** and *Aenictus lankamallensis* **sp. nov.**, are described from Andhra Pradesh, India, based on the worker caste. *Aenictus chittoorensis* **sp. nov.** belongs to the *Aenictus philippinensis* group, while *A. lankamallensis* **sp. nov.** belongs to the *Aenictus javanus* group. This study provides a detailed discussion of their morphology and the characters differentiating them from their closely related species. An updated identification key for the Oriental *A. philippinensis* species group is provided.

Keywords *Aenictus javanus* species group, *Aenictus philippinensis* species group, Andhra Pradesh
Zoobank http://zoobank.org/4941579B-9EBD-4A10-A908-7D6D0DC7EE67
Citation Bikash Sahoo, Ramakrishnaiah Sahanashree, Nikitha Muthu Kumaran, Dharma Rajan Priyadarsanan & Aniruddha Datta-Roy (2026). Two new species of army ants belonging the genus *Aenictus* Shuckard 1840 (Hymenoptera: Formicidae) from the Eastern Ghats of India. Asian Myrmecology 19: e019003

Communicating Editor Shingo Hosoishi

INTRODUCTION

Aenictus Shuckard, 1840 is the most speciose genus of the ant subfamily Dorylinae in the Old World. Its distribution is primarily across the Afrotropical and Southeast Asian regions, with fewer species in the Australian and southern Palearctic region (Borowiec 2016). Workers of *Aenictus* are characterized by 8 to 10-segmented antennae, an elevated position of the propodeal spiracle, and a binodal waist (Borowiec 2016). Phylogenetically, *Aenictus* is sister to a clade comprising *Aenictogiton* Emery, 1901 and *Dorylus* Fabricius, 1793 (Borowiec 2019).

Aenictus, like other army ants, exhibits a distinctive set of morphological, behavioral, and reproductive features, collectively termed the "army ant syndrome". This includes traits such as obligate group foraging, frequent colony migrations, and a specialized permanently wingless queen. Such adaptations support their nomadic and predatory lifestyle and have shown an evolutionary consistency and a long-term evolutionary stasis (Brady 2003; Borowiec 2019).

Globally, there are 204 species and 25 subspecies of *Aenictus* currently recognized (Bolton 2025). Within India, 38 species have been reported to date (Bharti et al. 2016; Antony & Prasad 2022; Dhadwal & Bharti 2023; Sahoo et al. 2023; Sahoo et al. 2024; Shakur & Bagchi 2024; AntWeb 2025). Jaitrong & Yamane (2011) divided *Aenictus* species from the eastern part of the Oriental, Indo-Australian, and Australasian regions into 12 species groups, while Gómez (2022) described 7 species groups for African species.

In this study, two new species from the Eastern Ghats of India are described based on the worker caste. One species belongs to the *Aenictus philippinensis* group, and the other to the *Aenictus javanus* group. These two species groups were revised by Jaitrong and Yamane (2012). The present descriptions contribute to the growing understanding of the diversity and distribution of *Aenictus* in the Indian subcontinent.

MATERIALS AND METHODS

The specimens were collected during a field survey in Andhra Pradesh. Fieldwork was conducted during the daytime (between 9 AM to 5 PM); specimens were collected from the ground using an aspirator for around 20 seconds and subsequently preserved in 70% ethanol at the collection site. Geological coordinates of the collection site were recorded using a Garmin™ Etrex 30x (Datum WGS 84). Taxonomic analysis was undertaken at National Institute of Science Education and Research (NISER) using a ZEISS Stemi 508 stereo microscope equipped with an attached Axiocam 208 color camera. Photographic documentation was carried out using a Keyence VHX 6000 digital microscope at Ashoka Trust for Research in Ecology and the Environment (ATREE), Bengaluru. The holotype and some paratypes are currently deposited in the ATREE Insect Museum, Bengaluru (AIMB).

MEASUREMENTS AND INDICES

Measurements and morphological terminology follow Bharti et al. (2012). All measurements are given in millimeters and recorded to the second decimal place.

HL Head length, measured in full-face view along the midline from clypeus margin to occipital margin.
HW Head width. Maximum width of head, in full-face view.
SL Scape Length. Length of antennal scape excluding basal constriction.
WL Weber's Length. measured from the point at which the pronotum meets the cervical shield to the posterior margin of the metapleuron in profile.
GL Gaster length in profile from the anteriormost point of the first gastral segment to the posteriormost point (excluding sting).
PL1 Petiole length. Maximum length of the petiole in profile.
PL2 Postpetiole Length. Maximum length of the postpetiole in profile.
PHL Pronotal hair length. Length of longest hair on pronotum measured in a straight line from insertion to tip.
TL Total length. HL+WL+PL1+PL2+GL.
CI Cephalic index, HW/HL × 100.
SI Scape index. SL/HW × 100.

RESULTS

Aenictus philippinensis group

Diagnosis. "10-segmented antennae with scape not reaching posterolateral corner of head; anterior clypeal margin convex in the middle, without teeth; mandible triangular, densely punctured, masticatory margin bears a large apical tooth followed by 6-8 inconspicuous small denticles, basal margin lacks denticles; frontal carinae fused at the level of antennal base to form a single carina that extends to less than half length of head, which is well developed anteriorly and poorly developed posteriorly; parafrontal ridge present, not reaching midlength of head; occipital margin forming a collar or carina; in profile, mesosoma displays a convex promesonotum that gradually slopes to metanotal groove; mesopleuron demarcated from metapleuron by a deep groove and from promesonotum by a distinct carina; metanotal groove relatively deep and distinct; propodeal junction angular; declivity of propodeum concave, encircled with a rim; subpetiolar process weakly developed. First gastral segment entirely smooth

and shiny except the base of both tergite and sternite with dense small punctures. Body reddish brown to dark brown; typhlatta spot absent" (Jaitrong & Yamane 2011).

Remarks. "This group consists of relatively large species, with total body length ranging between 4.05-4.60 mm. It is closely related to the *A. pachycerus* group and *A. hottai* group. However, the *A. philippinensis* group is separated from the other two by the mesonotum demarcated from the mesopleuron by a conspicuous ridge and relatively deep and distinct metanotal groove. The sculpture of the head varies from completely smooth to densely puncto-reticulate. "Worker caste monomorphic" (Jaitrong & Yamane 2011).

Two species, having a ridge between mesonotum and mesopleuron, have been documented from India, namely *Aenictus indicus* and *A. wilsoni* (Bharti et al., 2012). These two species possess all the defining characteristics of *A. philippinensis* species group, with the exception of *A. wilsoni,* which displays a few deviations such as indistinct metanotal groove, scape reaching up to the posterior margin of head, and black body coloration. In this paper, we add one new species to this species group. A map illustrating the geographical distribution of the species of the *A. philippinensis* group across India and Southeast Asia has been included (Fig. 2). The distribution of species, along with their type localities, are provided in table 1.

DESCRIPTION OF NEW SPECIES

Aenictus chittoorensis Sahoo et al. sp. nov. (Figs.1 A- E)
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Material examined. Holotype worker (AIMB/ Hy/ Fr 25005). INDIA, Andhra Pradesh, Chittoor, Sri Venkateswara Wildlife Sanctuary, 13.7522°N 79.4674°E, 202m, 17.x.2021, aspirator, coll. Bikash Sahoo, colony code- AP137.

Paratypes. 10 workers, same data as holotype.
The Holotype and paratypes are deposited in AIMB.

Measurements and indices. Holotype: HL, 0.82; HW, 0.8; SL, 0.6; WL, 1.27; PL1, 0.3; PL2, 0.32; GL, 1.4; TL, 4.11; CI, 97.5; SI, 75.

Paratypes (n=10): HL, 0.82-0.97; HW, 0.79-0.9; SL, 0.55-0.73; WL, 1.27-1.46; PL1, 0.27-0.39; PL2, 0.27-0.39; GL, 1.4-1.7; TL, 4.3-4.8; CI, 87.6-101.1; SI, 69.6-83.5.

Diagnosis Worker: *Aenictus chittoorensis* sp. nov. is distinguished by this combination of features: Head as long as broad with convex lateral margin, straight posterior margin, and convex anterior clypeal margin. Mandible triangular, with a large apical tooth and 6-8 denticles. Mesonotum demarcated from mesopleuron by a distinct carina. Mesopleuron demarcated from metapleuron by a ridge. Body surface microreticulate. Gaster shagreened. Declivity of propodeum concave, encircled with a rim. Metanotal groove distinct but not deep.

Description

Worker Monomorphic body.

Head. Almost as long as broad; sides convex, posterior margin almost straight. Parafrontal ridge short; around 0.25 mm, not reaching to midlength of head. Anterior clypeal margin convex, produced in middle, without teeth. Antennae 10-segmented. Scape long but does not reach the posterior margin of head. Typhlatta spot absent. Mandible broad, triangular, masticatory margin with a large apical tooth followed by 6-8 small denticles (Fig.1 A).

Mesosoma. In profile, dorsal outline of promesonotum convex, sloping gradually to metanotal groove. Propodeum lower to promesonotum; dorsal outline of propodeum almost straight; declivity concave, encircled with a well-developed rim. A carina divides mesonotum and mesopleuron. Mesopleuron demarcated from metapleuron by a ridge. Metanotal impression distinct but not deep (Fig.1 B).

Metasoma. Both petiole and postpetiole similar in length, dorsally convex. Petiole subsessile, dome shaped; postpetiole convex dorsally. Subpetiolar process low, indistinct with a straight ventral outline (Fig.1 C). Postpetiole cuboidal. Gaster elliptical, tapering at the end in profile (Fig.1 D).

Sculpture. Entire head, mesosoma, petiole, and postpetiole densely microreticulate. Mandibles striate with few punctures. Declivity of propodeum microreticulate. Gaster, including the first gastral tergite, shiny and shagreened. Shagreening is more distinct on the lateral sides of the gaster and at the base of the tergites (Fig.1 E). Antennae and legs feebly microreticulate except coxae, which is densely microreticulate (Figs.1 A-E).

Pilosity. Moderate, suberect hair all over the body; denser on gaster, relatively longer on the dorsum of mesosoma, petiole, and postpetiole (Figs.1 A-E). Longest pronotal hair is 0.27 mm.

Color. Head, mandible, mesosoma, petiole, and postpetiole dark reddish brown. A triangular dark patch is present on the vertex. Gaster light brown to black. Legs light brown (Figs.1 A-E).

Male and Queen: Unknown

Habitat and Natural History. The type locality is situated within Sri Venkateswara Wildlife Sanctuary, a part of the Southern Eastern Ghats. The vegetation types are Southern tropical dry deciduous forests and Southern dry mixed deciduous forests. Key tree species include *Pterocarpus santalinus*, *Helicteres isora*, *Cycas beddomei*, *Shorea robusta*, *Santalum album*, *Sterculia urens*, *Ficus religiosa*, etc. (Andhra Pradesh Forest Department, https://forests.ap.gov.in/).

The specimens were collected from the ground, beneath the upper soil layer, with no apparent trail or colony visible. The collection area was predominantly bamboo forest with exposed soil surface and a lack of substantial leaf litter or undergrowth.

Etymology The species is named after Chittoor, the district where Sri Venkateswara Wildlife Sanctuary is located. This species is currently known only from its type locality.

Comparative notes. *Aenictus chittoorensis* sp. nov. shares similarities with *Aenictus indicus* Bharti et al. 2012, particularly in terms of size and sculptural characteristics (microreticulation on head, mesosoma, petiole, and postpetiole). *Aenictus indicus* is reported from Tamil Nadu, India. These two species can be distinguished based on the following characteristics:

Aenictus indicus has a low convex subpetiolar process with a distinct forward-directed lobe (Fig.7 A). In *A. chittoorensis* sp. nov. subpetiolar process is low and without a lobe (Fig.7 B). Gaster smooth in *A. indicus* (Fig.7 A), while superficially shagreened with fine reticulation in *A. chittoorensis* sp.nov. (Fig.1 E). The convexity of promesonotum in *A. chittoorensis* sp. nov. is notably more elevated than *A. indicus*. In addition to that, the propodeal teeth in *A. chittoorensis* sp.nov. are more acute than *A. indicus* (Fig.7).

This species is also similar to *Aenictus punctatus* Jaitrong & Yamane 2012, in overall size and sculptural characteristics. However, it can be distinguished by its shagreened gaster, whereas the gaster is smooth in *A. punctatus*. The shape of the petiole and postpetiole also differs between the two species. In *A. punctatus*, the dorsal outline of the petiole is elevated posteriorly (Fig.5), while in *A. chittoorensis* sp. nov. it is dome-shaped and not elevated posteriorly (Fig.1 C).

The new species is unique within the *A. philippinensis* species group by having shagreened gastral segments, including the first gastral tergite. All other species in this group display an entirely smooth first gastral segment.

Table 1. List of worker-based species of *A. philippinensis* species group and distribution (type localities are marked with *).

Species	Distribution
Aenictus chittoorensis Sahoo et al. sp. nov.	India (Andhra Pradesh*)
Aenictus indicus Bharti, Wachkoo & Kumar 2012	India (Tamil Nadu*)
Aenictus pangantihoni Zettel & Sorger 2010	Philippines (Camiguin*)
Aenictus philippinensis Chapman 1963	Philippines (Negros*)
Aenictus punctatus Jaitrong & Yamane 2012	Borneo (Sabah, Sarawak, Brunei*, and E. Kalimantan) and Java
Aenictus rabori Chapman 1963	Philippines (Negros Island*)
Aenictus wilsoni Bharti, Wachkoo & Kumar 2012	India (Himachal Pradesh*)

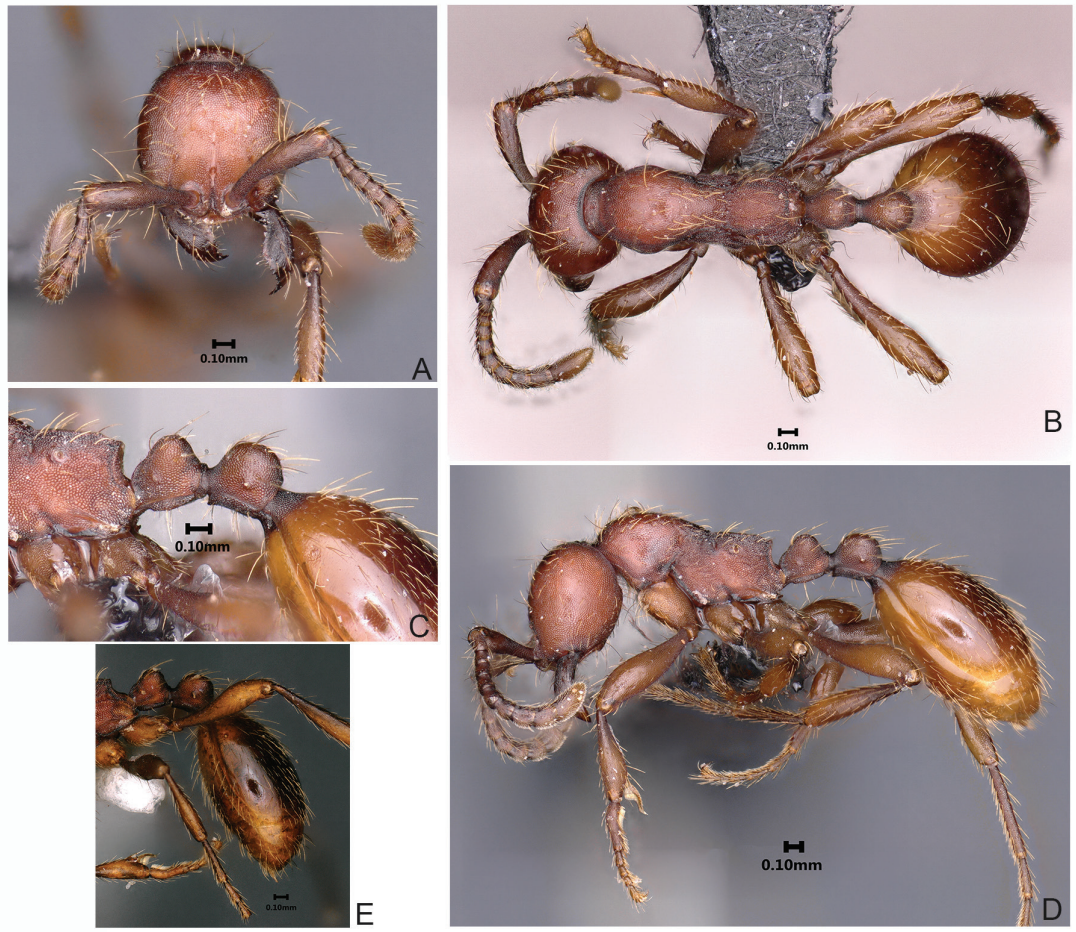

Fig.1. (A-D. holotype, E. paratype). *Aenictus chittoorensis* **sp. nov.**, worker A. Head in full-face view B. Body in dorsal view C. Petiole and postpetiole with subpetiolar process in profile view D. Body in profile view E. Sculpture of first gastral tergite in profile view.

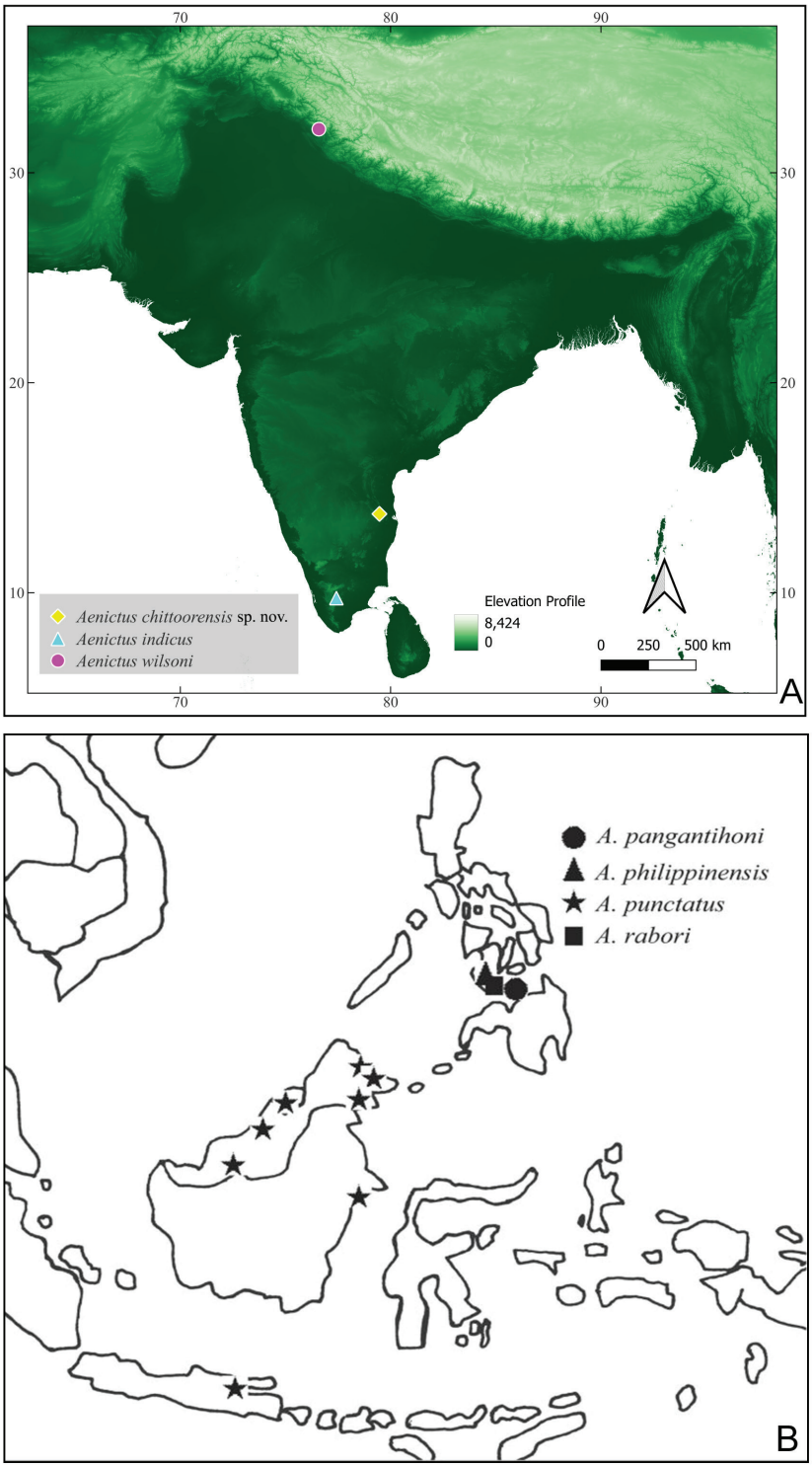

Fig. 2. A. Distribution of the members of the *Aenictus philippinensis* group in India B. Distribution of the members of the *A. philippinensis* group in Southeast Asia (image taken from Jaitrong & Yamane 2012).

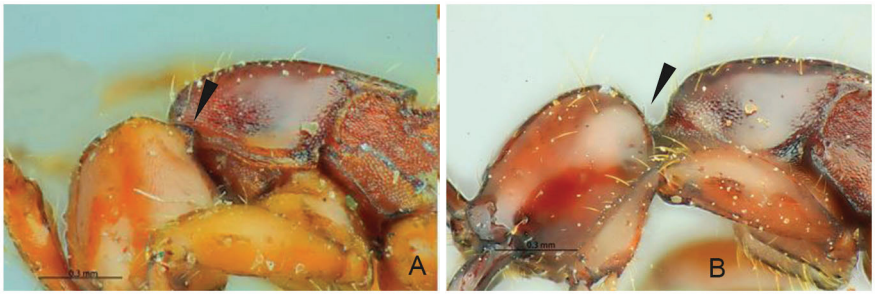

Fig.3. A. *Aenictus rabori*, occipital corner of head with lobe; B. *Aenictus pangantihoni*, occipital corner of head without lobe (image taken from Jaitrong & Yamane 2012).

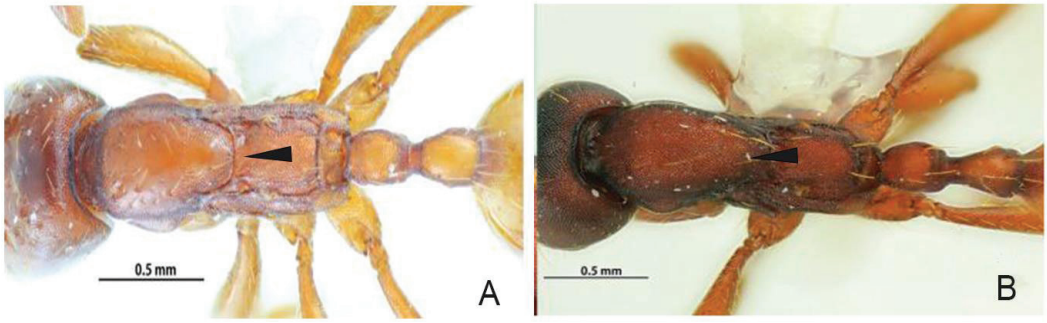

Fig.4. A. *Aenictus philippinensis*, smooth pronotum dorsum; B. *Aenictus punctatus*, punctate pronotum dorsum (image taken from Jaitrong & Yamane 2012).

Fig. 5. *Aenictus punctatus*, posteriorly elevated dorsal outline of petiole (image taken from Jaitrong & Yamane 2012).

Fig.6. A. *Aenictus wilsoni*, indistinct metanotal groove; B. *Aenictus indicus*, distinct metanotal groove (image taken from Bharti et al. 2012).

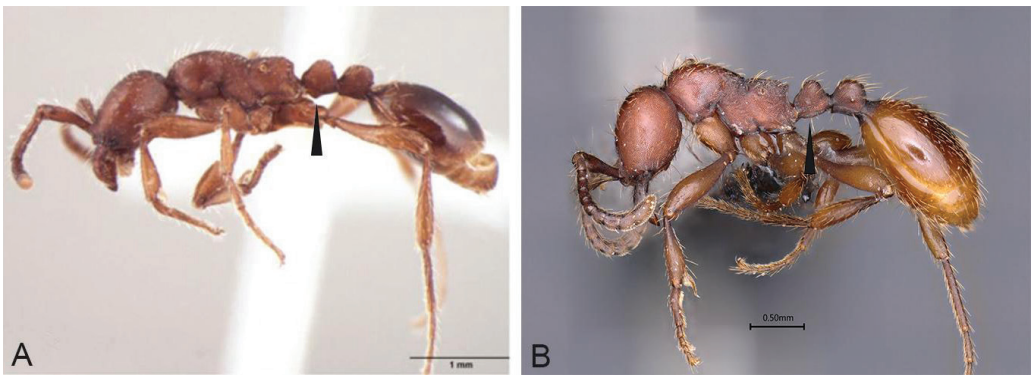

Fig.7. A. *Aenictus indicus*, subpetiolar process with an anterior lobe (image taken from Bharti et al. 2012); B. *Aenictus chittoorensis* **sp. nov.**, subpetiolar process without an anterior lobe.

Key to the members of *A. philippinensis* species group based on worker caste (modified after Jaitrong & Yamane 2012, and two species descriptions from India by Bharti et al. 2012 are added).

1. Frons of head smooth and shiny; mandible extensively smooth and shiny, with scattered punctures, or striae confined to periphery.....2
– Frons of head sculptured (superficially to very densely punctate); mandible almost entirely sculptured. 3

2. With head seen in profile occipital corner produced as a small lobe; sides of head partly superficially shagreened with smooth and shiny interspaces (Fig.3 A); larger species (HW 0.83–0.85 mm; TL 4.35–4.45 mm).....
.....*Aenictus rabori* Chapman 1963
– With head seen in profile occipital corner without such a lobe; sides of head entirely smooth and shiny (Fig.3 B); smaller species (HW 0.78– 0.80 mm; TL 4.00–4.10 mm) .....
..... *Aenictus pangantihoni* Zettel & Sorger 2010

3. Head superficially reticulate, slightly shiny; dorsal face of pronotum almost
smooth and shiny (Fig.4 A) .....
Aenictus philippinensis Chapman 1963
– Head entirely punctate or reticulate, punctures fine and very dense; dorsal face of pronotum punctate or reticulate (Fig.4 B) 4

4. Head and dorsal face of pronotum entirely punctuate, dorsal outline of petiole elevated posteriorly (Fig.5 A).....
.....*Aenictus punctatus* Jaitrong & Yamane 2012
– Head and dorsal face of pronotum entirely reticulate, dorsal outline of petiole not elevated posteriorly (Figs.7 A, B) 5

5. Metanotal groove indistinct, body black (Fig.6 A) .....*Aenictus wilsoni* Bharti et al. 2012
– Metanotal groove distinct, body reddish brown (Fig.6 B).....6

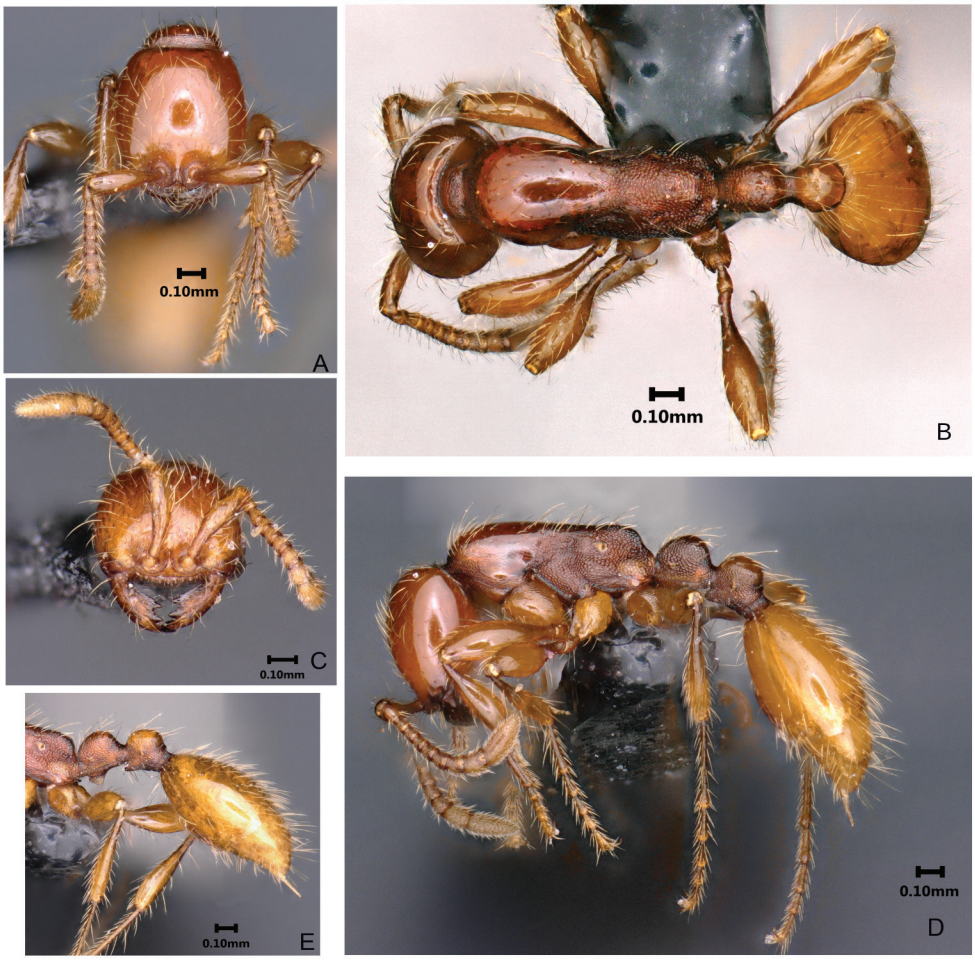

Fig.8. (A-E. holotype). *Aenictus lankamallensis* **sp. nov.**, worker. A. Head in full-face view B. Body in dorsal view C. Mandible and Anterior clypeal margin with teeth D. Body in profile view E. Metasoma in profile.

6. Subpetiolar process with an anterior lobe, gaster smooth and shining (Fig.7 A)..... ..... *Aenictus indicus* Bharti et al. 2012
– Subpetiolar process low, without lobe, gaster shagreened with fine superficial reticulation (Fig.7 B).....***Aenictus chittoorensis* sp. nov.**

***Aenictus javanus* species group**

Diagnosis. "In full-face view, head with convex occipital corner, occipital margin without collar; antenna 10-segmented; scape short, extending only half length of head; anterior clypeal margin roundly convex bearing 6-10 denticles; mandible subtriangular with 3 teeth including the large apical tooth; frontal carina short, not extending beyond the level of posterior margin of torulus; parafrontal ridge absent; mesosoma with dorsal margin almost flat in profile view; dorsal face meeting with lateral face at a right angle; propodeal junction angulated; propodeal declivity encircled with a thin rim. Subpetiolar process developed, triangular or subrectangular. Head and first gastral segment entirely smooth and shiny except base of first gastral tergite and sternite with dense small punctures. Body reddish brown to yellowish brown; typhlatta spot absent" (Jaitrong & Yamane 2011).

Remarks. "This is a group of relatively small ants measuring 1.38-3.40 mm in total length. It is similar to the *A.minutulus* group (formerly *A. piercei* group) in terms of body size and coloration, but can be differentiated by the presence of several

denticles on the anterior clypeal margin in the former, while denticles absent in the latter.
Variations in size are observed among specimens of single colonies. Smaller specimens typically exhibit weaker punctation, more elongated heads, and shorter antennal scapes compared to larger specimens" (Jaitrong & Yamane 2011).

Aenictus lankamallensis Sahoo et al. sp. nov. (Figs.8 A-E)

urn:lsid:zoobank.org:act:14F849AE-DB9C-4C1E-8488-C4B2C54163F8

Material examined. Holotype worker (AIMB/ HY/ Fr 250011). INDIA, Andhra Pradesh, Kadapa, Sri Lankamalleswara Wildlife Sanctuary, 14.4487°N 78.8436°E, 155m, 15.x.2021, aspirator, coll. Bikash Sahoo, Colony code- AP131.

Paratypes. 108 workers, same data as holotype.

The Holotype and paratypes are deposited in AIMB.

Measurements and indices. Holotype: HL, 0.61; HW, 0.54; SL, 0.33; WL, 0.86; PL1, 0.23; PL2, 0.2; GL, 0.89; TL, 2.59; CI, 88.52; SI, 61.1; PHL, 0.19.

Paratypes (n=10)**:** HL, 0.53-0.69; HW, 0.46-0.62; SL, 0.25-0.39; WL, 0.8-1.03; PL1, 0.19-0.27; PL2, 0.18-0.25; GL, 0.73-1.31; TL, 2.35-3.43; CI, 85-91.93; SI, 54.2-63.79.

Diagnosis. Head slightly longer than broad; occipital margin round; anterior clypeal margin straight bearing around 9 teeth. Antennae 10-segmented, scape not reaching midlength of head; masticatory margin of mandible has 3 teeth, including a large apical tooth. Lateral face of pronotum shiny with superficial reticulation; propodeal face joins through a smooth curve; petiole and postpetiole similar in size; subpetiolar process well developed (Figs.8 A-E).

DESCRIPTION

Worker workers with variable body size
Head. In full-face view, slightly longer than broad, sides convex, posterior margin straight or feebly concave. Anterior clypeal margin bearing around 9-10 denticles. Antennae 10-segmented (Fig.8 A), scapes short, not reaching up to the midlength of the head. Mandible subtriangular, masticatory margin with 3 teeth, including a large apical tooth, a distinct denticle is present at the base of the middle tooth. Basal margin of mandible without teeth but with a slightly raised ridge (Fig.8 C). Parafrontal ridge and typhlatta spot absent. In profile, occipital corner of the head round (Fig.8 D).

Mesosoma. In profile view, dorsal outline of pronotum almost straight to feebly convex; rest of mesosoma straight. In dorsal view, broader anteriorly than posteriorly; promesonotum laterally not margined by ridges. In profile, propodeum at the same level as the promesonotum; declivity shallowly concave, encircled by a thin rim; propodeal face joins through a smooth curve in profile view (Fig.8 D).

Metasoma. Both petiole and postpetiole almost similar in size. Petiole subsessile, dome shaped with its lobe slightly elevated posteriorly. Postpetiole rectangular, with dorsum slightly convex in profile view. Subpetiolar process well developed, rectangular, and directed backward. Gaster elliptical with tapering end. Sting distinct (Fig.8 E).

Sculpture. Head smooth and shiny, while the region close to the mandibular socket lightly microreticulate. Mandibles with striations (Figs.8 A, C). Lateral face of pronotum shiny with superficial reticulation. Lateral mesonotum, metanotum, petiole, and postpetiole microreticulate (Fig.8 D). Dorsum of promesonotum smooth, dorsum propodeum and declivity microreticulate; dorsum petiole smooth with very feeble reticulation, and postpetiole entirely smooth (Fig.8 B). Gaster completely smooth and shiny. Legs smooth, coxa with superficial reticulation. (Figs.8 A-E).

Pilosity. Moderate, erect to suberect hair all over the body, denser on gaster, antennae, and tarsi (Figs.8 A-E). Longest pronotal hair is 0.23 mm.

Color. Orange to reddish brown; head orangish brown; mesosoma reddish brown; mandibles dark brown. Legs and gaster pale orange (Figs.8 A-E).
Male and Queen: Unknown

Habitat and Natural History. The type locality is situated within Sri Lankamalleswara Wildlife Sanctuary. Specimens were observed along a trail (Fig.9 A). The vegetation type comprises a mixed type of southern tropical dry deciduous forest, scrub forest, southern dry mixed deciduous forest, tropical thorn forests, and tropical dry evergreen forest. Dominant plant species include wild mangoes, bamboo, *Terminalia*, *Syzygium*, *Anogeissus latifolia*, *Phoenix*, *Hardwickia binata*, etc. (Andhra Pradesh Forest Department, https://forests.ap.gov.in/). A habitat photograph is provided in figure 9.

Etymology. Name of this species is derived from its type locality, Sri Lankamalleswara Wildlife Sanctuary. This species is currently known only from this locality. A distribution map is provided in figure 10.

Comparative notes *Aenictus lankamallensis* sp. nov. bears similarities to *Aenictus doydeei* Jaitrong, Yamane, & Chanthalangsy 2011, regarding their body size and sculpture. However, both species can be differentiated based on the following characteristics.

When seen in profile, propodeal face in *A. doydeei* joins through a sharp angle (Fig.11 A), whereas smoothly round in the former (Fig.11 B). Promesonotum laterally margined by ridges in *A. doydeei* (Fig.12 A), while unmargined in *A. lankamallensis* sp. nov. (Fig.12 B). The basal margin of mandible in *A. lankamallensis* sp. nov. bears a low ridge and a denticle at the base of the middle tooth, which is absent in *A. doydeei*. The longest pronotal hair in *A. lankamallensis* sp. nov. is above 0.20, while it ranges below 0.20 in the latter. Additionally, convexity of promesonotum in *A. doydeei* is notably more elevated than *A. lankamallensis* sp. nov. (Figs.11 A, B).

Fig.9. (A, B). Sri Lankamellaeswara Wildlife Sanctuary, habitat of *A. lankamallensis* sp. nov. © Dr. Mihir R. Kulkarni.

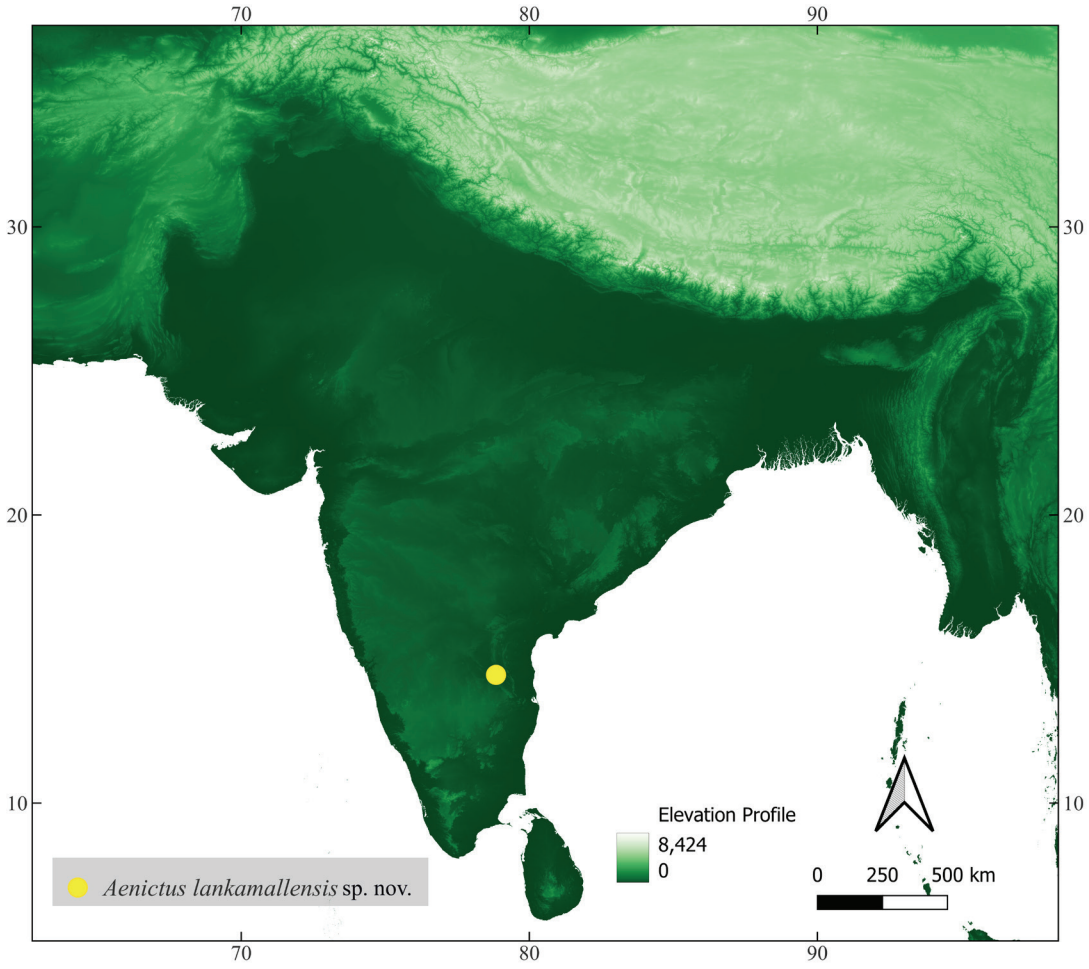

Fig.10. Map of India showing the location of *A. lankamallensis* sp. nov.

Fig.11. A. *A. doydeei* (Holotype), angular propodeal face (image taken from Jaitrong et al. 2011); B. *A. lankamallensis* sp. nov., smooth curved propodeal face.

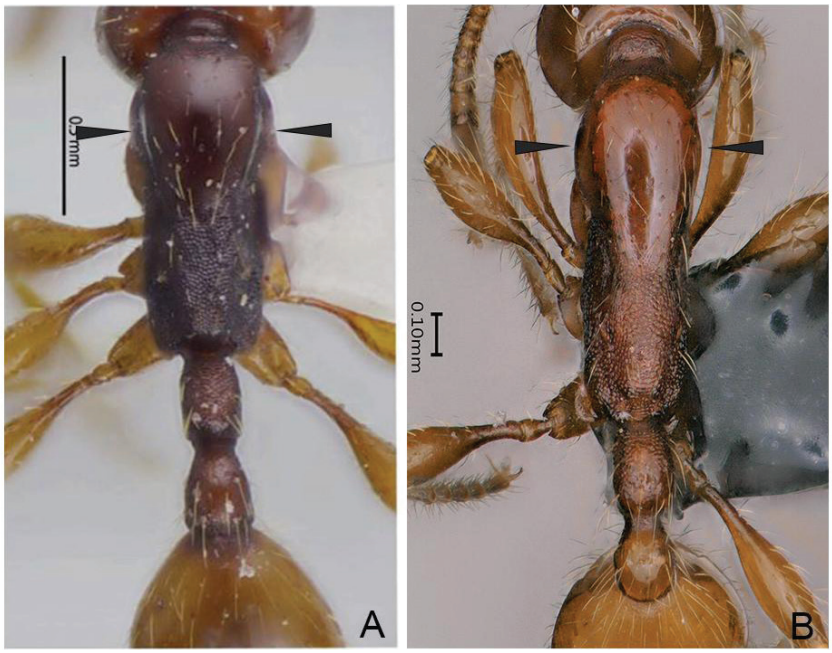

Fig.12. A. *A. doydeei* (Holotype), promesonotum with lateral ridges (image taken from Jaitrong et al. 2011); B. *A. lankamallensis* sp. nov., promesonotum without lateral ridges.

Aenictus lankamallensis sp. nov. keys out at couplet number 5 of Jaitrong & Yamane (2012). Couplet 5 is edited, and a new couplet, number 6, is added to incorporate *A. lankamallensis* sp. nov.,

5. Lateral face of pronotum shiny but with reticulation 6
– Lateral face of pronotum smooth and shiny; sculpture, if any, very superficial (Vietnam, Laos, and Thailand) ....*A. nishimurai* Terayama & Kubota 1993

6. Propodeal junction angular (Vietnam, Laos, and Thailand) .... *A. doydeei* Jaitrong & Yamane 2012
– Propodeal junction smooth curve (India)..... ..... *A. lankamallensis* sp. nov.

DISCUSSION

From India, although 38 *Aenictus* species have been recorded, several have been described solely based on male specimens, creating taxonomic uncertainty commonly called as "dual taxonomy" and hindering an accurate estimation of the number of species. Moreover, only a limited amount of taxonomic work has been conducted on ants, particularly within the genus *Aenictus*, suggesting many species may still remain undiscovered.

Both Sri Venkateswara Wildlife Sanctuary and Sri Lankamalleswara Wildlife Sanctuary are part of the Eastern Ghats hill ranges. The Eastern Ghats have historically received less attention from researchers in comparison to the Western Ghats, leading to a knowledge gap about the species inhabiting this region. Our discovery emphasizes the significance of the Eastern Ghats as an ecosystem worthy of exploration and conservative efforts.

ACKNOWLEDGMENTS

BS and ADR thank the Forest Department of Andhra Pradesh (No. EFS02-21049/20/2021-WILD LIFE SEC-PCCF dated 07.09.2021) and Karnataka (No. PCCF (WL)/E2/CR-10/2021-22 dated 09.03.2022) for granting permission and providing field support. NMK acknowledges NISER, and BS acknowledges CSIR-UGC JRF and NISER for funding. BS extends thanks to Dr. Jahnavi Joshi and the assistance of Pragyadeep and Dr. Mihir during the fieldwork in Andhra Pradesh. SR and PDR acknowledge Global Conservation, USA, for the financial assistance and the

Department of Biotechnology, Government of India, for the lab infrastructure through a major research project on "Bio-resource and Sustainable livelihoods in North East India (BT/01/17/NE/TAX)".

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