A New Species of the Ant Genus *Aenictus* (Hymenoptera: Formicidae: Aenictinae) From the Malay Peninsula

by

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ABSTRACT

Aenictus glabratus Jaitrong et Nur-Zati, a new army ant from the Malay Peninsula in the *A. silvestrii*-group of the subfamily Aenictinae, is described based on the worker caste.

Keywords: Formicidae, ants, *Aenictus silvestrii*-group, *Aenictus glabratus* sp. nov., taxonomy, Southeast Asia, Malay Peninsula.

INTRODUCTION

Currently 83 species are listed in the army ant genus *Aenictus* from the Oriental, Indo-Australian, and Australasian regions (Bolton *et al*. 2006; Shattuck 2008). All the known species of the genus except three have 10-segmented antennae in the worker caste. The species with less than 10 antennal segments (8 or 9) are *Aenictus jarujini* Jaitrong et Yamane, *A. latifemoratus* Terayama et Yamane and *A. silvestrii* Wheeler, forming the *Aenictus silvestrii*-group (Jaitrong & Yamane 2010).

Recently we have found another species with 9-segmented antennae from Malay Peninsula, which is described as new to science in the present paper.

MATERIALS AND METHODS

The holotype and paratypes are pin-mounted dry specimens. Most observations were made with a Nikon SMZ1000 stereoscope. Images were processed using Helicon Focus 4.75 Pro. Seven workers were measured using a micrometer; all measurements are expressed in millimeters, representing to the second decimal place.

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SYSTEMATICS

Aenictus silvestrii species-group

In the previous paper (Jaitrong & Yamane 2010) this species group was defined as follows: in the worker, head entirely sculptured; antenna thick, consisting of only 8 or 9 segments; scape somewhat flattened, broadened apically and strongly grooved below; anterior clypeal margin roundly convex in the middle; mandible triangular, very densely with small punctures; its masticatory margin with small inconspicuous teeth in addition to a sharp apical tooth; frontal carinae fused at the level of antennal base to form a single carina; occipital margin forming a narrow collar; declivity of propodeum concave, encircled with a rim; legs with apical half of tibia weakly and of femur strongly broadened and somewhat flattened; base of gastral tergite I and sternite I with dense small punctures, the punctured area usually dark colored; head and mesosoma yellowish, reddish or dark brown; gaster paler, usually yellow; typhlatta spot absent.

With the incorporation of the new species, the definition should be slightly modified to exclude "head entirely sculptured" since the new species has an almost entirely smooth head but in all the other respects the same conditions as the other species.

Aenictus glabratus Jaitrong et Nur-Zati, sp. nov.

Figs. 1-3

Holotype. Worker from Selangor, Semangkok Forest Reserve. (550 m alt.), Malaysia, Nur-Zati *et al*. leg., 21 XI 2007, WSM0167.03.

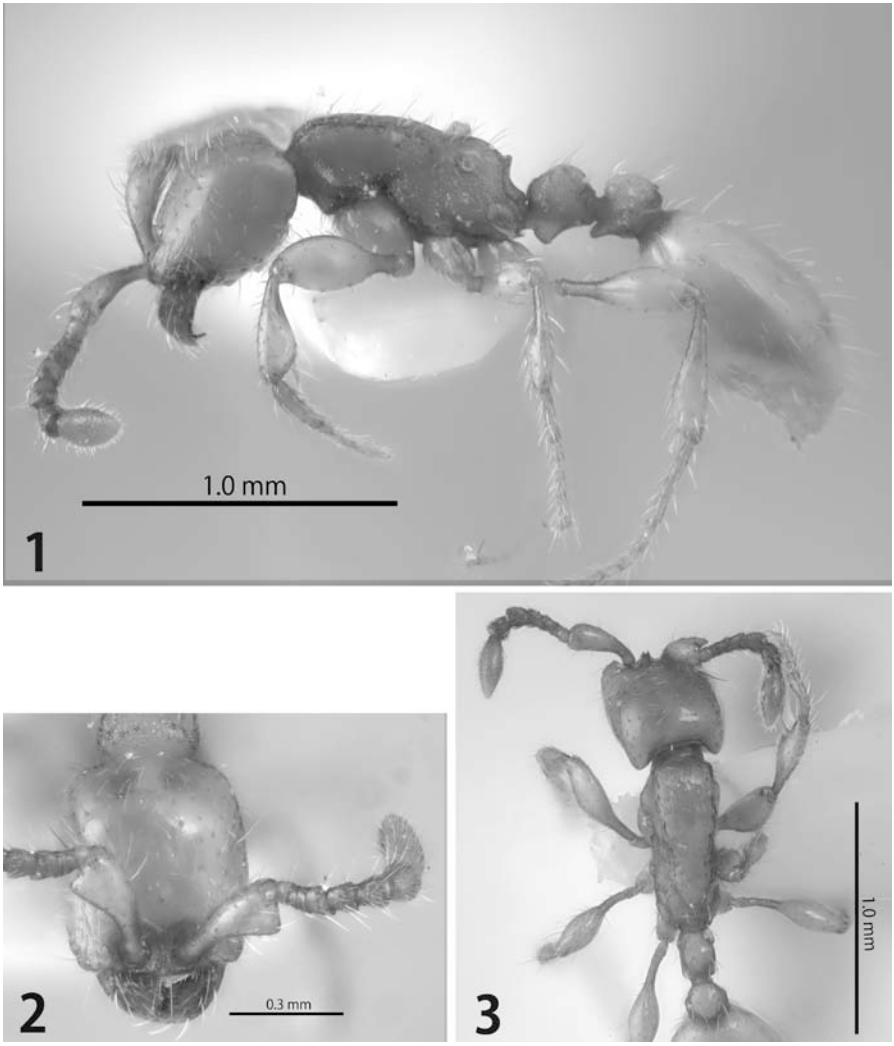
Paratypes. Six workers, same data as holotype.

Type depository. The holotype and one paratype are deposited in the Forest Research Institute Malaysia (Malaysia) and some paratypes in the Natural History Museum, London, (U.K.), SKY collection at Kagoshima University (Japan), the Natural History Museum of the National Science Museum (Thailand).

Measurements. Holotype and paratypes ($n = 7$): TL (total length) 2.85-2.95 mm; HL (head length) 0.63-0.65 mm; HW (head width) 0.48-0.53 mm; SL (scape length) 0.33-0.38 mm; ML (mesosomal length) 0.83-0.85

mm; MTL (maximum length of mid tibia) 0.30-0.38 mm; PL (petiole length) 0.20-0.23 mm; CI (cephalic index = HW/HL × 100) 76-81; SI (scape index = SL/HW × 100) 67-71.

Worker Description (holotype and paratypes)**.** Head in full-face view rectangular, distinctly longer than broad, with almost parallel sides; posterior margin of head almost straight but weakly sinuate; occipital margin concave



Figs. 1-3. *Aenictus glabratus* sp. nov., holotype. 1, Body in profile; 2, head in full-face view; 3, body from dorsal view.

bearing a carina. Antenna 9-segmented; scape short, extending to the mid-length of head in full-face view; antennal segment II longer than III and IV; V-IX, each longer than broader; terminal segment (IX) very large, almost as long as VI, VII and VIII combined. Frontal carinae short extending less than half length of head, very poorly developed in posterior half. Clypeus short and roundly produced anteriorly, lacking teeth on anterior margin. Mandible with apical tooth large, followed by 10-12 denticles of two sizes, the larger alternating with 1-3 smaller; basal margin of mandible with 1-2 denticles near basal angle.

With mesosoma seen in profile promesonotum weakly convex dorsally and sloping gradually to metanotal groove; propodeum slightly lower and weakly convex dorsally; mesopleuron not clearly demarcated from metapleuron. Propodeal junction angulated; declivity of propodeum shallowly concave, encircled with a rim.

Petiole almost as long as high, anteriorly margined by a transverse carina, while posterior lacking it; subpeiolar process subtriangular, its apex directed downward; postpetiole slightly smaller than petiole, roundly convex dorsally, anteroventrally produced as a blunt angle directed downward and forward.

Gaster elongate-elliptical, narrowed anteriorly and posteriorly.

Head entirely smooth and shiny except anteriormost portion of head in profile where short irregular longitudinal rugae are present; area around antennal sockets with dense punctures; upper face of antennal scape basally with dense micropunctures and apically much smoother; mandible largely with dense minute punctures, but smooth apically and along masticatory margin. Dorsal surface of mesosoma weakly and irregularly corrugated but shiny; anteriormost portion of pronotum punctate; sides of pronotum smooth and shiny; mesopleuron, metapleuron and sides of proprodeum densely punctate. Gaster smooth and shiny except for extreme basal portion. Femora and tibiae smooth and shiny.

Body with relatively sparse standing hairs mixed with sparse short hairs over the surface; length of the longest pronotal hair approximately 0.13–0.15 mm. Head, mesosoma and waist yellowish brown; gaster and legs clear yellow; mandible dark brown.

Etymology. The species epithet "*glabratus*" is a Latin word meaning smooth. This refers to the smooth and shiny head of this species, while the head is entirely sculptured in the other species of the *A. silvestrii*-group.

Distribution. Malay Peninsula (Fig. 4).

Remarks. *A. glabratus* is a distinct species in having the head almost smooth and shiny and the body much paler (clear yellow or yellowish brown) and smaller than in the other species of the *A. silvestrii*-group. The type series was collected by sifting from the leaf litter in a lowland rainforest in Malay Peninsula. This species is very probably sympatric with *A. latifemoratus* and *A. silvestrii* (Fig. 4).

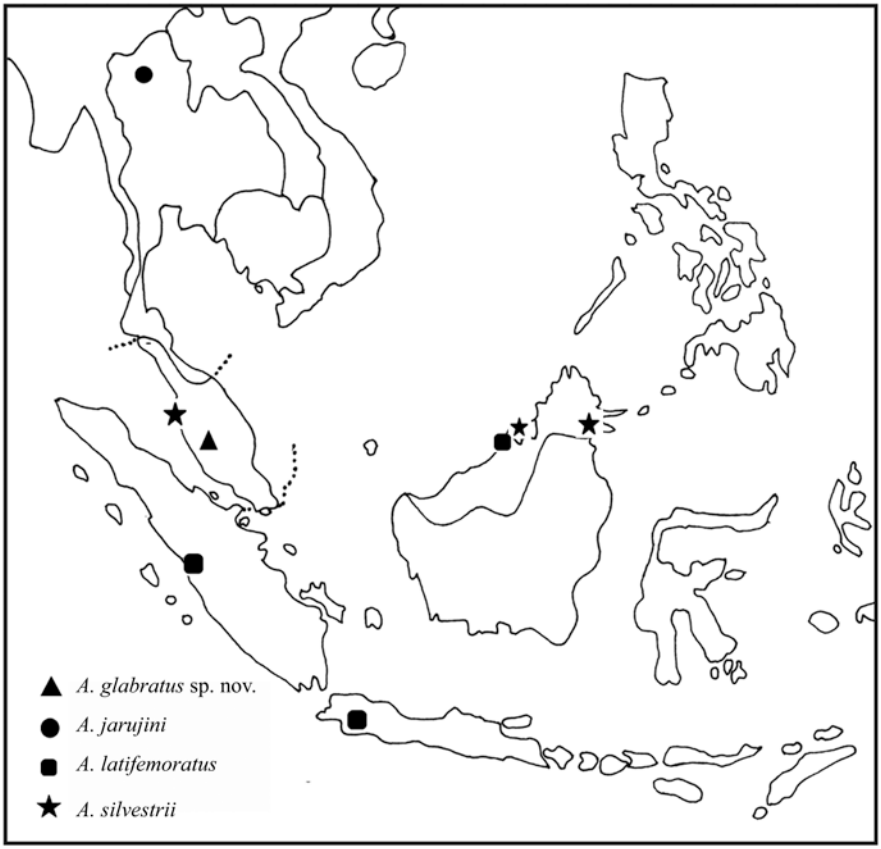


Fig. 4. Distribution of the four species of the *Aenictus silvestrii*- group.

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