Revision of the ant genus *Myrmoteras* of the Indo-Chinese Peninsula (Hymenoptera: Formicidae: Formicinae)

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Abstract

The Indo-Chinese species of the genus *Myrmoteras* are revised. We recognise one species in the subgenus *Myagroteras* and six species in the subgenus *Myrmoteras* from Vietnam, Myanmar and Thailand. Five new species are described based on the worker caste: *M. concolor*, *M. jaitrongi*, *M. namphuong*, *M. opalinum*, and *M. tomimasai*, all belonging to the subgenus *Myrmoteras*.

Key words: *Myrmoteras*, Vietnam, Thailand, Malaysia, new species

Introduction

The ant genus *Myrmoteras* Forel, 1893 is one of the formicine groups with the most bizarre form. They have an oddly-shaped head, huge eyes and extraordinarily long mandibles opening wider than has been observed for any other ant (Moffett, 1985). In the course of our ant diversity studies in Southeast Asia including Vietnam, Thailand, Malaysia, and Indonesia, *Myrmoteras* are infrequently encountered and considered rare (Bui, 2000, 2002; Eguchi et al., 2003; Yamane et al., 2002, 2005). On the other hand, in some places like the Sang Le Forest Ecosystem of Pu Mat National Park, Nghe An, Vietnam (a forest dominated by *Lagerstroemia tomentosa* Presl.), colonies are often aggregated in certain small areas.


The ant fauna of the Indo-Chinese peninsula is poorly known (Bui & Eguchi 2003, Yamane et al. 2003, Eguchi et al. 2005). In the present paper the genus *Myrmoteras* in this region is reviewed, based on newly obtained material from Vietnam and Thailand. We propose five new species and present a key to the species from this region.
Materials and methods

The present study is principally based on the specimens deposited in the collection of the Vietnam National Museum of Nature, SKY Collection at Kagoshima University (Japan), Natural History Museum of the National Science Museum (Thailand), and Eguchi’s personal collection. Type specimens of the species described by Forel (1893) and Agosti (1992) were borrowed from the Natural History Museum, Geneva, Switzerland (MHNG), and examined.

The examination of the specimens was carried out with a Nikon SMZ 645 binocular microscope. Multi-focused, montage images were produced by Eguchi using Helicon Focus 4.30 or 5.1 Pro (MP) from a series of source images taken by a Nikon Coolpix 8400 digital camera attached to a Nikon AZ100 microscope. Fine hairs and other features that were not recognised automatically were copied from the focused parts from the source images on to the montage image using the retouching function of Helicon Focus. Artifacts (ghost images) and unnecessary parts (unfocused appendages, etc.) surrounding or covering target objects were erased and cleaned up using the retouching function of Helicon Focus. Finally, the background was cleaned up, and the color balance, contrast and sharpness were adjusted using Adobe Photoshop CS2.

Abbreviations of the type depositories are as follows:

ACEG Ant Collection of Katsuyuki Eguchi, Japan
MHNG Muséum d'Histoire Naturelle, Geneva, Switzerland
SKYC Sk. Yamane Collection, Kagoshima University, Japan
THNHM Thailand Natural History Museum of the National Science Museum, Thailand

Terminology chiefly follows Moffett (1985). All measurements are given in millimeters to the second decimal place except for the total body length. Values for the holotypes are given in italics, and the means in parentheses.

EL (Eye length). The maximum diameter of the eye.
HfL (Hind femur length). The maximum length of the hind femur.
HL (Head length). In full-face view, the length of the head proper, excluding the mandibles, measured from the mid-point of the anterior clypeal margin to the mid-point of the posterior margin.
HW (Head width). In full-face view, the maximum width of the head, measured behind the eyes.
ML (Mandible length). Measured from the tip of the apical mandibular tooth to the lateral clypeal tooth on the same side as the mandible being measured.
PrW (pronotal width). The maximum width of the pronotum in dorsal view.
SL (Scape length). The maximum length of the scape, excluding the basal radicle.
TL (Total length). Total body length excluding mandibles, roughly measured with an ordinary ruler.
CI (Cephalic index). 100 x HW/HL.
SI (Scape index). 100 x SL/HW.

Key to the Myrmoteras species from the Indo-Chinese peninsula (Vietnam, Myanmar and Thailand) based on the worker caste

Note: Surface sculpture and pilosity of the dorsa of the head and pronotum looks very differently depending on the condition of specimens. In some specimens the surface looks somewhat shiny but in others from the same colony it can look completely mat. The pubescence (minute appressed hairs) on the pronotal dorsum and gastral tergites is often abraded away to some extent, particularly in the mediodorsal area of the second tergite; more hairs may remain in the lateral area of the tergite. It is highly recommended to observe multiple specimens from the same colony. Mandibular teeth are counted from the apex of the mandible and exclude denticles between the teeth; the first (apical) to fourth teeth are generally distinctly longer than the subsequent teeth, although counts of the teeth are somewhat arbitrary (see Fig. 1).
FIGURE 1. Left mandibles in dorsal view. A. *Myrmoteras cuneinodum*; B. *M. jaitrongi*; C. *M. concolor*.

1. Median portion of anterior margin of labrum transverse, without a pair of long trigger hairs. Apical part of mandible not bent; with mandible seen in profile first (apical) and second (penultimate) teeth located on the same plane; a relatively large denticle present between second and third teeth and between third and fourth teeth (Fig. 1–A) .................................................. (subgenus *Myagroteras*), *cuneinodum* Xu
   - Median portion of anterior margin of labrum more or less triangular, bearing a pair of long trigger hairs. Apical part of mandible bent ventrally; with mandible seen in profile first (apical) and second (penultimate) teeth located on different planes; small denticle absent between second and third teeth and between third and fourth teeth (denticle seen only in abnormal individuals) (Fig. 1–B,C) .................................................. (subgenus *Myrmoteras*), 2

2. Third tooth of mandible much shorter than second and fourth teeth, looking like a large denticle (Fig. 1–B). Dorsum of mesonotum transversely and finely striate. Smaller species with head width 0.88–0.94 mm .................................. *jaitrongi* sp. nov.
   - Third tooth of mandible much shorter than second tooth, but as long as or longer than fourth tooth (Fig. 1–C). Dorsum of mesonotum variously sculptured, with longitudinal rugae or irregular sculpture, or rarely transversely striate. Larger species with head width more than 1 mm .................................. 3

3. Second gastral tergite with abundant appressed short pubescence; distance between hairs generally shorter than hairs; pubescence on pronotal dorsum also denser .................................................. 4
   - Second gastral tergite without pubescence or with much sparser appressed short pubescence; distance between hairs on average much longer than hairs; pubescence on pronotal dorsum much sparser .................................................. 5

4. Almost entire dorsum of head densely and distinctly sculptured; pronotal dorsum punctate. Coxae, femora and tibiae brown to reddish brown; legs of same colour as mesosoma .............................................. *tomimasai* sp. nov.
   - Posterior 1/3 of head dorsum nearly smooth, with more superficial sculpture than in anterior 2/3, or dorsum of head extensively weakly sculptured; pronotal dorsum nearly smooth and shiny. Mid- and hind coxae creamy to yellowish; legs yellowish, much paler than mesosoma .............................................. *binghamii* Forel

5. Median portion of clypeus and area just above clypeus nearly smooth and shiny; sculpture if any superficial. Mandible clear yellow; petiole tinged with yellow. Frontal sulcus confined to median portion of head, not reaching median ocellus .................................................. *namphuong* sp. nov.
   - Clypeus and lower frons distinctly and densely sculptured. Mandible yellowish to dark brown; petiole not tinged with yellow. Frontal sulcus very weakly developed, or distinct and usually reaching median ocellus .................................................. 6

6. Body and legs brown to dark brown; mandible, antenna and legs paler; femora of all legs of almost same colour as tibiae. Gastral tergite 2 almost without pubescence (rarely with very sparse pubescence). Frontal sulcus distinct, usually reaching median ocellus .................................................. *concolor* sp. nov.
   - Body brown, slightly with reddish tinge; mid- and hind coxae and femora whitish yellow; fore coxa and femur yellowish; femora of all legs distinctly paler than tibiae. Gastral tergite 2 with sparse pubescence (often abraded away). Frontal sulcus usually very weak .................................................. *opalinum* sp. nov.

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List of the Indo-Chinese species

**Subgenus Myagroteras** Moffett, 1985


*Myrmoteras concolor* sp. nov. Thailand.

*Myrmoteras jaitrongi* sp. nov. S. Thailand, W. Malaysia.

*Myrmoteras namphuong* sp. nov. Vietnam.

*Myrmoteras opalinum* sp. nov. S. Thailand.

*Myrmoteras tomimasai* sp. nov. Vietnam, N. Thailand.

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**Myrmoteras cuneonodum** Xu (Fig. 1–A, 2)


**Worker measurements and indices.** TL 3–3.5, HL 0.92–1.00 (0.95), HW 0.92–0.98 (0.95), EL 0.58–0.62 (0.60), ML 1.21–1.33 (1.27), SL 0.92–1.02 (1.00), PrW 0.52–0.58 (0.55), HfL 0.94–1.04 (1.00), CI 98–102 (100), SI 100–108 (104). (5 non-type workers were measured.)

**Worker description.** Body yellowish brown; mandible and leg pale yellow. Body with sparse standing hairs; dorsum of head and pronotum often with faint pubescence. Clypeus faintly rugose; frons irregularly rugose; vertex of head (including occipital lobe) smooth; frontal sulcus wide and deep, reaching median ocellus; anterior clypeal margin concave; mandible with ca. 10 teeth; two tiny denticles present between first (apical) and second (penultimate) teeth; the posterior one of the two very tiny; one relatively large denticle present between second and third teeth, and between third and fourth teeth; palp formula 6.4. Orbital grooves present, but narrow and shallow; scape distinctly shorter than funicular segments combined; funicular segments longer than broad. Pronotum in lateral view flattened dorsally; anteriormost part of pronotum rugose transversely; dorsum of pronotum smooth or faintly rugoso-punctate; dorsum of mesonotum rugoso-punctate; side of mesonotum with several irregular rugae; mesopleuron smooth; metapleural and lateral face of propodeum obliquely rugose; metanotal groove shallow; dorsal face of propodeum transversely rugose; propodeum in lateral view relatively strongly convex. Petiolar node in lateral view with a vertical anterior face and steep posterior slope; ventral outline of petiole beneath the node slightly sinuate or concave.

**Remarks.** Up to now 26 species are known in the subgenus *Myagroteras* (Zettel & Sorger, 2011). However, most of them were based on a single or a few specimens from a restricted area. Colony series were examined very rarely. Our species seems closely related to *M. estrudae* Agosti (holotype examined) from Sumatra and *M. cuneonodum* Xu (holotype not examined) from Yunnan, southern China. All these have a smooth pronotal dorsum. Compared with *M. estrudae*, in our species the propodeal side is much more strongly sculptured (often
metapleuron also sculptured) and the propodeal dorsum is densely transversely striate. In the latter condition it is more similar to *M. cuneonodum* (see Xu, 1998, p. 125), and we tentatively identified our species as *M. cuneonodum*. However, among the specimens examined we have found variation in the sculpture of pronotum, propodeum and side of mesosoma. Furthermore, in some specimens the propodeum is very convex dorsally, the condition approaching that of *M. karnyi* Gregg from the Mentawai Islands, Sumatra. We need more material derived from colonies to evaluate the status of so many species recently described in this subgenus. In Khao Yai National Park in northeastern Thailand, nests were found in soil at altitudes between 600 and 1,000 m.

**Distribution.** S. China, Vietnam, Thailand.

![Figure 2](image-url)

Myrmoteras binghamii Forel, 1893
(Fig. 3)

Myrmoteras binghamii Forel, 1893: 608. Creighton, 1930: 186, fig. 2, pl. 11, fig. 2; Moffett, 1985: 24, figs. 12, 16, map 1.

Syntypes. 2 workers, Thaungyin Valley (Tenasserim), Burma [Myanmar], May 1893 [MHGN] (examined).


Worker measurements and indices. TL 3.5–4.5, HL 1.04–1.19 (1.13), HW 1.04–1.15 (1.12), EL 0.67–0.75 (0.71), ML 1.27–1.50 (1.41), SL 1.19–1.46 (1.37), PrW 0.63–0.73 (0.70), HfL 1.31–1.54 (1.44), CI 97–100 (99), SI 115–127 (122). (5 non-type workers were measured.)

Worker description. Body brown; gaster dark-brown; mandible, legs pale yellow; mid- and hind coxae creamy to yellowish. Body with erect hairs; pubescence dense on dorsum of head, pronotum and second, third and fourth gastral segments. Clypeus slightly rugose; median portion of frons slightly and sparsely punctured; area around antennal insertion slightly rugoso-punctate; vertex of head (including occipital lobe) smooth; frontal sulcus faint, interrupted in the posterior half of frons, or sometimes reaching median ocellus; anterior clypeal margin concave; mandible with 9 teeth that reduce in size from the apical to basal teeth; two denticles present between first and second teeth; palp formula 6,4; orbital groove absent; scape a little shorter than funicular segments combined; funicular segments each longer than broader. Pronotum in lateral view flattened dorsally; anteriormost part of pronotum transversely rugose, and the remainder part of it faintly punctured; dorsal part of mesonotum rugoso-punctate or rugose longitudinally; side of mesonotum with several longitudinal rugulae; mesopleuron, metapleuron and lateral face of propodeum smooth or weakly punctured; dorsum of propodeum weakly rugoso-punctate transversely; propodeum in lateral view roundly convex posterodorsally. Petiolar node in lateral view with vertical anterior face and steep posterior slope; ventral outline of petiole beneath the node slightly sinuate or almost straight.

Remarks. This species has abundant appressed pubescence on gastral tergites. It is distinguished from the closely related M. tomimasai by the weaker sculpture on the dorsum of head and pronotum, and creamy to yellowish mid- and hind coxae. Legs are yellowish and much paler than the mesosoma. (See also under M. concolor and M. tomimasai.)

Distribution. Myanmar (Forel, 1893), Thailand.

Myrmoteras concolor sp. nov.  
(Figs. 1–C, 4)

Holotype. Worker from Eastern Thailand, Chanthaburi Province, Khao Soi Dao WS, rain forest, 4 vi 2001, leg. Sk. Yamane (TH01-SKY-47) [THNM].

Paratypes. 14 workers and 2 winged queens from same colony as holotype; 15 workers and 2 males, same locality, 4 vi 2001, leg. Sk. Yamane (TH01-SKY-53); 6 workers, same locality, waterfall, 13 v 2008, leg. W. Jaitrong (4 workers from WJT06-E020, 2 from WJT08-E021); 3 workers, same locality, 3 vi 2001, leg. K. Eguchi (Eg01-TH-029); 2 workers, same locality, 4 vi 2001, leg. K. Eguchi (Eg01-TH-048); 1 worker, same locality, 4 vi 2001, leg. K. Eguchi (Eg01-TH-057) [ACEG, MHNG, SKYC, THNHM, VNMN].


Worker measurements and indices. TL 4.0–4.5, HL 1.08–1.15 (1.11), HW 1.08–1.13 (1.11), EL 0.65–0.71 (0.68), ML 1.38–1.46 (1.42), SL 1.31–1.38 (1.34), PrW 0.65–0.71 (0.68), HfL 1.38–1.56 (1.44), CI 98–104 (101), SI 117–122 (120). (Holotype and 5 non-type workers were measured.)

Worker description. Body and coxae dark-brown; mandible and legs (except coxae) lighter than body. Body with erect hairs; dorsum of head, pronotum and gastral tergites without pubescence, or at most with very short pubescence (distance between appressed hairs longer than the hairs). Clypeus and frons mainly rugoso-punctate; vertex of head (including occipital lobe) smooth; frontal sulcus faint, reaching the middle ocellus; anterior clypeal margin concave; mandible with 9 teeth that reduce in size from the apical to basal teeth; two denticles present between first and second teeth; palp formula 6,4; orbital groove absent; scape a little shorter than funicular segments combined; funicular segments each longer than broader. Pronotum in lateral view flattened dorsally; anteriormost part of pronotum transversely rugose, and its remainder part smooth or faintly rugoso-punctate; dorsum of mesonotum longitudinally or irregularly rugose; side of mesonotum irregularly rugose; mesopleuron, metapleuron and lateral face of propodeum smooth; dorsum of propodeum weakly rugoso-punctate; propodeum in lateral view roundly convex posterodorsad. Petiolar node in lateral view with vertical anterior face and steep posterior slope; ventral outline of petiole beneath the node slightly sinuate or almost straight.

Remarks. This species is similar to M. binghamii. However, it is distinguished from the latter by the much sparser pubescence on the gastral tergites, especially on second tergite, and dark-colored coxae.

Distribution. Thailand.

Myrmoteras jaitrongi sp. nov.
(Figs. 1–B, 5)


Worker measurements and indices. TL 3.5, HL 0.98–1.02 (1.00), HW 0.88–0.94 (0.92), EL 0.62–0.67 (0.65), ML 1.35–1.42 (1.39), SL 1.12–1.23 (1.17), PrW 0.54–0.62 (0.58), HfL 1.17–1.31 (1.24), CI 90–92 (91), SI 126–131 (128). (Holotype and 2 non-type workers were measured.)

Worker description. Body yellowish brown; gaster slightly darker than the mesosoma and petiole; legs yellowish. Body with sparse standing hairs, but without pubescence (clypeus with a few short appressed hairs). Clypeus weakly punctured or rugoso-punctate; frons mainly granulate, but area around antennal insertion finely rugoso-punctate; vertex of head (including occipital lobe) shining; frontal sulcus very feeble, visible as a very short trace running backward until the middle of frons. Anterior clypeal margin concave. Mandible with 9–10 teeth, and with two denticles between first and second teeth; third tooth much shorter than second and fourth teeth; palp formula 5,3. Orbital grooves virtually absent. Scape shorter than funicular segments combined. Funicular segments each longer than broad. Pronotum in lateral view with its dorsal outline gently sloping upward; dorsum of pronotum feebly punctured medially, almost smooth laterally; dorsum of mesonotum transversely and finely striate and its lateral face irregularly longitudinally or obliquely rugose; mesopleuron, metapleuron and propodeum
smooth; metanotal groove shallow; propodeum in lateral view very weakly convex posterodorsally. Petiolar node round dorsally; ventral outline of petiole beneath the node slightly concave.

**Etymology.** The specific name is dedicated to Dr. Weeyawat Jaitrong, who offered us valuable material.

**Remarks.** *Myrmoteras jaitrongi* sp. nov. and *M. barbouri* Creighton, 1930 share the very small third tooth of mandible (called ‘the denticle between the penultimate tooth and the one proximad to it’ by Moffett, 1985). In this respect and the number of maxillary pulp segments (5), *M. jaitrongi* is closely related to *M. barbouri*, for which we could not examine the type material (Java). Our specimens may correspond to the smaller individuals of *M. barbouri* sensu Moffett (1985, p. 21) from the Malay Peninsula. However, *M. jaitrongi* differs from *M. barbouri* in the following respects: total body length including mandibles remarkably smaller (slightly more than 5 mm vs. 6.7–6.9 mm), dorsum of mesothorax rather regularly and transversely striate (irregularly or longitudinally rugose in *M. barbouri*), rugae on side of mesothorax more distinct in its posterior portion than in anterior portion (according to Creighton, 1930, five rugae present extending across the anterior half of the sides in *M. barbouri*), and generally much paler body colour (light brown vs. ferruginous; according to Creighton mesonotum and propodeum even tinged with black in *M. barbouri*).

**Distribution.** Southern Thailand and West Malaysia.

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**Myrmoteras namphuong** sp. nov.

*(Fig. 6)*

**Type material.** Holotype worker from Northern Vietnam, Lao Cai Province, Hoang Lien Son NP., Sa Pa Distr., Ban Khoang, secondary forest, stream-side, ca. 1700–1800 m alt., 27 iv 2002, leg. K. Eguchi (Eg02-VN-123) [VNMN]. Paratypes: 3 workers from the same colony as holotype [ACEG, SKYC, VNMN].

**Worker measurements and indices.** TL 4.5–5.0, HL 1.25–1.29 (1.26), HW 1.25–1.31 (1.27), EL 0.75–0.81 (0.77), ML 1.54–1.58 [1.56] (1.56), SL 1.48–1.52 (1.51), PrW 0.77–0.81 (0.79), HFL 1.73–1.79 (1.77), CI 98–103 [100] (100), SI 116–122 (119). (Holotype and 3 paratype workers were measured.)

**Worker description.** Frons and mesosoma dark brown; clypeus, vertex of head, petiole and gaster yellowish-brown; mandible and legs pale yellow. Body with sparse erect hairs; pubescence present near anterior margin of clypeus and frons. Clypeus smooth or slightly rugoso-punctate; frons mainly smooth, but area around antennal insertion slightly rugose; vertex of head (including occipital lobe) smooth; frontal sulcus very feeble, visible as a very short trace running backward until the middle of frons; anterior clypeal margin concave; mandible with 8 teeth that reduce in size from apical to basal teeth; two denticles present between first and second teeth; palp formula 6,4; orbital groove absent; scape a little shorter than funicular segments combined; funicular segments each longer than broad. Pronotum in lateral view flattened dorsally; anteriormost part of pronotum transversely rugose, and its remainder part smooth; mesonotum longer than high; dorsal part of mesonotum slightly rugoso-punctate transversely; lateral face of mesosoma more or less transversely rugose between pronotum and metathoracic tubercle, and obliquely rugose from the tubercle to propodeum; mesopleuron, metapleuron and lateral face of propodeum smooth; dorso of propodeum smooth or slightly rugoso-punctate transversely; propodeum in lateral view roundly convex posterodorsally. Petiolar node in lateral view with vertical anterior face and steep posterior slope; ventral outline of petiole beneath the node slightly concave.

**Etymology.** The specific name is after a famous queen of an ancient Vietnamese dynasty.

**Remarks.** This beautiful species is separated from other Indo-Chinese congeners by the lack of pubescence on the gastral tergites, incomplete frontal sulcus, and yellow mandible and petiole.

**Distribution.** Vietnam.

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**Myrmoteras opalinum** sp. nov.

*(Fig. 7)*

**Type material.** Holotype worker from southern Thailand, Surat Thani Province, Tai Rom Yen NP., nest in soil, 12 x 2011, leg. Sk. Yamane (TH11-SKY-045) [THNMH]. Paratypes: 9 workers from the same colony as holotype; 7 workers from the same locality, 12 x 2011, leg. Sk. Yamane (TH11-SKY-50) [ACEG, MHNG, THNHM, SKYC, VNMN].
Figure 6. Myrmoteras namphuong sp. nov. Paratype worker. A. Head, full-face view; B. Head and mesosoma, dorsal view; habitus, profile. Ban Khoang (A), Sa Pa, Lao Kai, N Vietnam, 27/iv/2002, K. Eguchi leg. (Eg02VN123).

Worker measurements and indices. TL 3.5–4.0, HL 1.04–1.10 (1.06), HW 1.02–1.10 [1.08] (1.06), EL 0.65–0.69 [0.67] (0.67), ML 1.31–1.37 (1.34), SL 1.21–1.30 [1.29] (1.27), PrW 0.63–0.67 (0.67), HfL 1.31–1.40 (1.37), CI 96–102 [98] (99), SI 118–120 (119). (Holotype and 5 paratype and non-type workers were measured.)

Worker description. Head and mesosoma brown, slightly with reddish tinge; petiole and gaster dark brown; mid- and hind coxae and femora whitish yellow; femora of all legs distinctly paler than tibiae. Body with erect hairs; dorsum of head and pronotum and first gastral tergite with pubescence; lateral face of gastral tergite I and II with sparse pubescence (often abraded away). Clypeus and lower frons densely rugoso-punctate; area around antennal insertion finely rugoso-striate. Anteriormost part of pronotum with faint, transverse rugoso-punctation, and remainder portion smooth or faintly and sparsely punctate; dorsum of mesonotum longitudinally or irregularly rugose; lateral face of mesonotum with several irregular rugae; mesopleuron, metapleuron and lateral face of propodeum smooth or faintly and sparsely punctured; dorsum of propodeum with faint, transverse rugoso-punctation. Frontal sulcus faint but reaching median ocellus (sometimes interrupted); anterior clypeal margin...
concave; mandible with 8 teeth that reduce in size from apical to basal teeth; two denticles present between first and second teeth; palp formula 6,4; orbital groove absent; scape distinctly shorter than funicular segments combined; funicular segments each longer than broad. Pronotum in lateral view with flat dorsal outline; mesonotum as long as high; propodeum in lateral view roundly convex posterodorsally. Petiolar node in lateral view with vertical anterior face and steep posterior slope; ventral outline of petiole beneath the node slightly sinuate.

Etymology. The specific name refers to the milk-white colour of the coxae and femora of the mid- and hind legs.

Remarks. This is a relatively small species, easily separated from other Indo-Chinese congeners by the milk-white colour of the coxae and femora of the mid- and hind legs, and the femora of all legs that are distinctly paler than the tibiae. The two nests were found in soil, in a lowland forest in southern Thailand.

Distribution. Southern Thailand.

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**Myrmoteras tomimasai** sp. nov.

(Fig. 8)

**Type material.** Holotype worker from Northern Middle Vietnam, Nghe An Province: Pu Mat NP.: Sang Le forest, ca. 220 m alt. 19°10′–11′′ N, 104°37′–38 E, 2 iv 2006, leg. K. Eguchi (Eg02iv06-12) [VNMN]. Paratypes: 1 worker, same locality as holotype, 1 iv 2006, leg. K. Eguchi (Eg01iv06-11); 6 workers, same colony as holotype, leg. K. Eguchi and V. T. Bui (Eg02iv06-12); 3 workers, same locality, 3 iv 2006, leg. K. Eguchi (Eg03iv06-03); 3 workers, same locality, 3 iv 2006, leg. K. Eguchi (Eg03iv06-07) [ACEG, MHNG, THNHM, SKYC, VNMN].


**Worker measurements and indices.** TL 3.5–4.0, HL 1.06–1.12 [1.08] (1.08), HW 1.06–1.15 [1.00] (1.08), EL 0.67–0.73 [0.69] (0.69), ML 1.25–1.37 [1.31] (1.31), SL 1.21–1.31 [1.27] (1.24), PrW 0.65–0.75 [0.67] (0.68), HfL 1.33–1.46 [1.37] (1.36), CI 98–103 [102] (100), SI 113–116 (117). (Holotype and 5 paratype and non-type workers were measured.)

**FIGURE 9.** Distribution of *Myrmoteras* species in Indochinese Peninsula. A. *Myrmoteras cuneinodum* (●: type locality); B. *M. binghamii* (▼: type locality; ▲: other localities) and *M. concolor* (●: type locality; ○: other localities); C. *M. namphuong* (●); *M. tominasai* (●: type locality; ○: other localities), *M. opalinum* (●), and *M. jatrongi* (▼: type locality; ▲: other locality).
Worker description. Body dark reddish brown; legs with similar coloration as body, but often slightly paler; mandible light brown. Body with erect hairs; pubescence dense on frons, pronotum and gastral tergites. Clypeus faintly punctate; frons extensively rugoso-punctate, but area around antennal insertion finely rugose; vertex of head (including occipital lobe) smooth. Anteriormost part of pronotum transversely rugose, and remainder smooth to weakly punctate; dorsal face of mesonotum weakly rugose; lateral face of mesosoma rugose more or less longitudinally; mesopleuron, metapleuron and lateral face of propodeum smooth or weakly punctate; dorsum of propodeum weakly rugoso-punctate transversely. Frontal sulcus faint, reaching median ocellus; anterior clypeal margin concave; mandible with 8 teeth that reduce in size from apical to basal teeth; two denticles present between first and second teeth; palp formula 6,4; orbital groove absent; scape slightly shorter than funicular segments combined; funicular segments each longer than broad. Pronotum in lateral view flattened dorsally; propodeum in lateral view roundly convex posterodorsally. Petiolar node in lateral view with vertical anterior face and steep posterior slope; ventral outline of petiole beneath the node slightly sinuate or almost straight.

Etymology. The specific name is after the son of Eguchi’s best friend.

Remarks. This species is separated from other Indo-Chinese congeners by the extensively sculptured dorsum of head, dark-colored legs, and abundant appressed pubescence on gastral tergites. The worker from Thung Yai, western Thailand is exceptional in having yellow coxae.


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