A Revision of the Neotropical Ants of the *montivagus* Species Complex, Genus *Camponotus*, Subgenus *Myrmentoma* (Hymenoptera: Formicidae)

by

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ABSTRACT

Four species of New World ants are members of the *montivagus* species complex of the genus *Camponotus*: *C. melinus* **new species**, *C. montivagus* Forel, *C. pertusus* **new species** and *C. rectithorax* Forel **new status**. *Camponotus montivagus* var. *nuperus* Wheeler is synonymized with *C. montivagus*. The complex is distributed in Mexico and Guatemala, as well as Trinidad. They can be relatively easily recognized as all parts of the dorsum of the mesosoma are in nearly the same plane and the propodeum is strongly angulate in most species. A key is presented for the identification of workers. These ants are best moved from the subgenus *Pseudocolobopsis* and placed back into the subgenus *Myrmentoma*. These ants are rarely collected and essentially nothing is known of the biology of this complex.

RESUMEN

El complejo *montivagus* de especies del subgénero *Myrmentoma* del género *Camponotus* incluye cuatro especies: *C. melinus* **especies nueva**, *C. montivagus* Forel, *C. pertusus* **especies nueva** y *C. rectithorax* Forel **estatus nueva**. *Camponotus montivagus* var. *nuperus* Wheeler es un sinómino de *C. montivagus*. El complejo se encuentra en México y Guatemala, como también en Trinidad. Se puede distinguir fácilmente de otras especies de *Camponotus* porque todo el mesosoma está en el mismo plano, y el propodeo es angulado en la mayoría de las especies. Se incluye una clave para la identificación de las obreras de las especies del complejo. Estas hormigas están incluídas en el subgénero *Myrmentoma*. La biología de las especies de este complejo es casi desconocida.

INTRODUCTION

Camponotus is the largest ant genus (Bolton 1995a) and currently consists of poorly defined groups in which species identification is nearly impossible. This is a second contribution towards the under-

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standing of the New World species of this complex genus (see Mackay 1997), and includes the rarely collected ants of the *montivagus* species complex. This is one of the few complexes in which the minor workers can be identified to a complex, as both the majors and minors have a strongly angulate propodeum. Most minor workers (and males) of other taxa of *Camponotus* cannot be placed into subgenera or species complexes, unless associated with majors or females. This complex is considered to be a member of the subgenus *Myrmentoma*, for which the United States species were revised by Snelling (1988). All of the known New World species of the subgenus *Myrmentoma* are included either in this paper or in Snelling's revision (1988).

METHODS AND MATERIALS

Specimens were borrowed from several institutions and curators as follows:

AMNH American Museum of Natural History, Mark Smethurst

CASC California Academy of Sciences, Darell Ubick, Wojciech Pulawski

CWEM Collection of W. and E. Mackay, University of Texas at El Paso

LACM Los Angeles County Museum of Natural History, Roy Snelling

MCZC Museum of Comparative Zoology, Harvard University, Stefan Cover

UNAM Instituto de Biología, Universidad Nacional Autónoma de México

USNM United States National Museum of Natural History, Smithsonian Institution, David Smith

Specimens were measured using an ocular micrometer in a dissection microscope. The following abbreviations are used (all measurements in mm):

HL Head length, anterior of median lobe of clypeus to mid point of occiput.

HW Head width, maximum excluding eyes at level of posterior half of eye.

EL Eye length, maximum dimension.

SL Scape length, excluding basal condyle.

CL Clypeus length, maximum length (see Fig. 1), including posterior lobes (if present).

CW Clypeus width, maximum width of clypeus at tentorial pits (Fig. 1).

WL Weber's length, anterior border of pronotum to posterior border of lobe of metapleural gland.

CI Cephalic Index, HW/HL X 100.

SI Scape index, SL/HL X 100 (note HL used instead of HW).
Clypeal Index, width/length X 100.
Front femur index, width/length X 100.

RESULTS AND DISCUSSION

Subgenus *Myrmentoma*

Camponotus subgenus *Myrmentoma* Forel, 1912:92

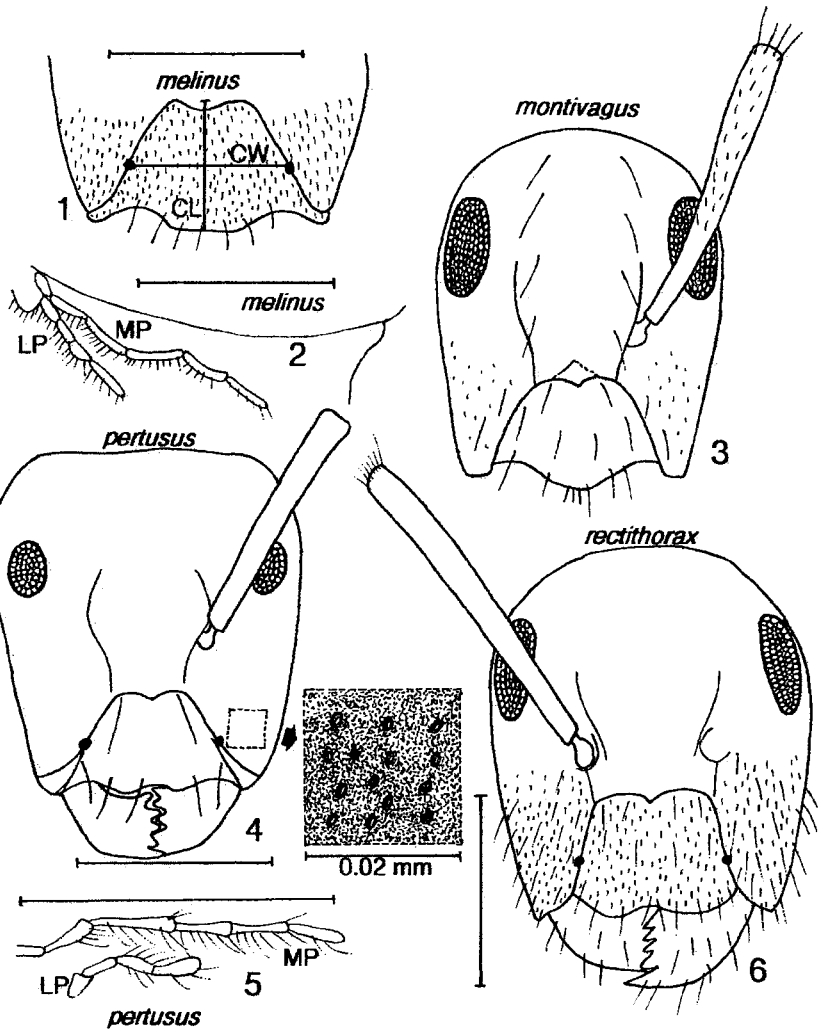
Camponotus subgenus *Myrmamblys* (in part): Forel, 1914:263, 272

Camponotus subgenus *Myrmentoma*: Emery, 1925,118

Camponotus subgenus *Pseudocolobopsis*: Snelling, 1988:57; Bolton, 1995b:112, 131

Type species of the subgenus *Myrmentoma*: *Formica lateralis* Olivier, 1792 (designated by Wheeler, 1913)

Diagnosis. This subgenus was characterized by Snelling (1988): small to medium sized carpenter ants with a distinct semicircular median notch on the apical margin of the clypeus, the head of the major, in frontal view, is approximately as broad as long, with the lateral margins not notably convergent from the occipital corner to the base of the mandible. The pilosity (erect hairs and very fine appressed hairs) is sparse to scattered (except on the gaster). The head shape of the female is more similar to that of the medium sized worker than to the major worker. The *montivagus* group possesses all of these characters, except that the clypeal notch is poorly developed in some specimens of a given series or possibly in some of the species, and the head is usually longer than broad and narrowed anteriorly. The *montivagus* group can be further characterized as having long maxillary palps (extending nearly to foramen magnum, see Fig. 2), in having all of the parts (pronotum, metanotum and propodeum) of the mesosoma in approximately the same plane, and in having a strongly angulate propodeum (except *C. melinus*). This complex is definitely not a member of the subgenus *Pseudocolobopsis* as the antennal scapes are relatively long, the maxillary palps are long, (characteristics never found in *Pseudocolobopsis*), the clypeal carina is poorly developed (well developed in most *Pseudocolobopsis*), they are apparently monomorphic or weakly polymorphic (dimorphic in most *Pseudocolobopsis*, trimorphic in the rest) and the vertex is usually straight or broadly rounded (found in the *alboannulatus* complex, which is presently considered to be a member of *Pseudocolobopsis*, but which is quite distinct from the *montivagus* group). Thus this species complex is easily recognized among the Neotropical *Camponotus* species.



Figs. 1 - 6. Workers of the *montivagus* species complex: 1) Lower head and clypeus of holotype of *C. melinus*. CL indicates clypeal length, CW indicates clypeal width; 2) Maxillary palp (MP) and labial palp (LP) of holotype of *C. melinus*; 3) Head of *C. montivagus* from Veracruz, México (our number 10860); 4) Head of holotype of *C. pertusus*; 5) Maxillary and labial palps of holotype of *C. pertusus*; 6) Head of lectotype of *C. rectithorax*. Unless otherwise indicated, scales are all 1 mm.

Description.

Worker measurements (mm):

HL 1.56 - 2.22, HW 1.54 - 2.02, SL 1.30 - 2.08, EL 0.39 - 0.64, CL 0.48 - 0.83, CW 0.60 - 0.83, WL 1.86 - 2.86, front femur length 1.14 - 1.76,

front femur width 0.41 - 0.54. Indices: CI 86 - 100, SI 83 - 101, clypeal index 108 - 125, front femur index 28 - 37.

Mandibles with 5 teeth; anterior border of clypeus most commonly convex, but often with distinct notch (Fig. 4), clypeus broadly convex, with poorly defined carina; sides of head broadly rounded or straight, usually widest at position of eyes; vertex broadly and evenly rounded or straight; scape relatively long, extending past posterior corners of head by 2 - 3 funicular segments, up to 1/2 length of scape (Fig. 3); maxillary palps with 6 segments, long, extending more than half distance to foramen magnum (Fig. 2); labial palps with 4 segments, about length of first 3 or 4 segments of maxillary palps (Fig. 2); mesosoma flattened to a greater or lesser extent, occasionally nearly flat (Fig. 7); pronotum flattened; mesonotum often slightly convex and at higher level than pronotum and propodeum, especially in larger workers; depression posterior to mesopropodeal suture often deeply marked, especially in larger workers (Fig. 7); propodeum strongly angulate between faces (Fig. 10), dorsal face slightly convex in most specimens, posterior face concave; petiole with anterior petiolar face convex, posterior face nearly straight, petiolar node strongly sharpened at apex as seen in profile (Fig. 9), nearly flat as seen from behind.

Erect hairs sparse; decumbent pubescence very dilute, except on head and gaster where they are very small and scattered.

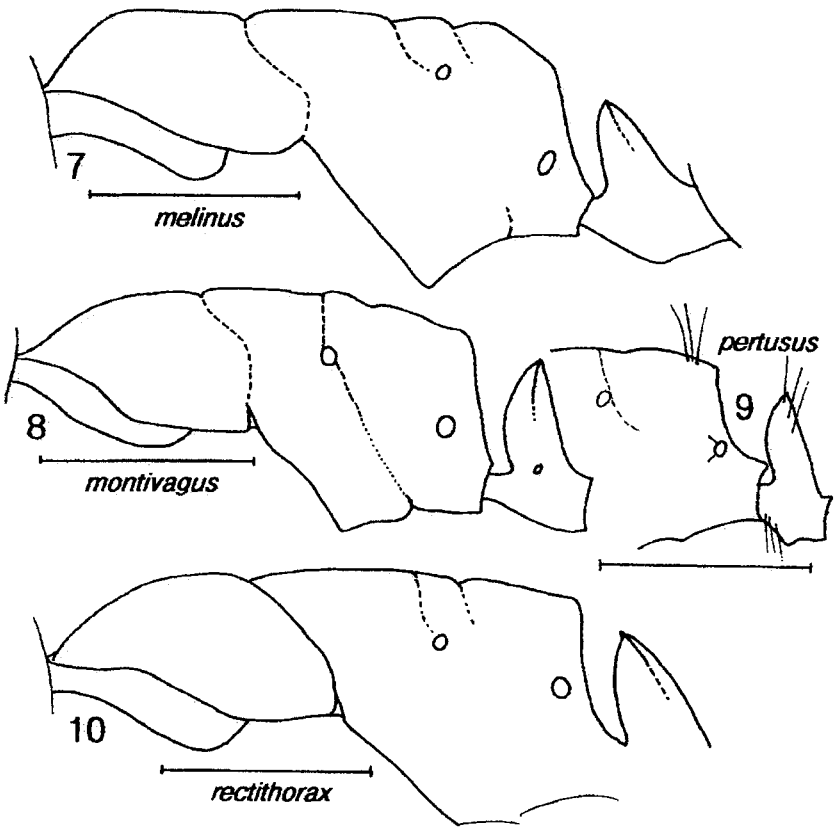
Sculpture fine on most surfaces with surface shining.

Color light to dark brown, gaster usually darker than remainder of ant.

Female: Only one female specimen is known, see description under *C. montivagus*.

Male: Unknown.

Discussion. The strongly angulate pronotum separates this species complex from nearly all other New World species in the genus *Camponotus*. In addition, the entire dorsum of the mesosoma is nearly in the same plane. The few specimens of this subgenus that have been collected suggest that most species are nearly monomorphic or very weakly polymorphic. It is also possible that a major caste has not yet been collected. If the major caste is lacking, it will be easily separated from nearly all of the other species of *Camponotus*, as most have a major caste. Species could be confused with those of the subgenus *Pseudocolobopsis*, but differ in a number of important characters (see diagnosis of complex above). It could also be confused with the subgenera *Colobopsis* and *Hypercolobopsis*, but apparently lacks the specialized soldier caste found in the latter 2 subgenera. The minor workers of *Colobopsis* (i. e. *C. etiolatus*) could be confused with members



Figs 7 - 10. Mesosomae of workers of the *montivagus* species complex: 7) Holotype of *C. melinus*; 8) *C. montivagus*, specimen from Veracruz, México (#10860) 9) Paratype of *C. pertusus*; 10) Lectotype of *C. rectithorax*. Scales are 1 mm.

of this species complex, but are usually smaller ants. It is unlikely to be confused with the subgenus *Myrmaphaenus*, in which the clypeal carina is usually strongly developed and the sculpture of most surfaces consists of dense, coarse punctures and/or the surface of the mesosoma is covered with thick, golden, decumbent pubescence (the mesosoma of species in this complex is similar to that of *C.* (*Myrmaphaenus*) *capperi* Forel, but the mesosoma of the latter is strongly punctate), or the primarily monomorphic *Myrmobrachys*, which usually has a strongly arched mesosoma, rounded propodeal angle and densely punctured sculpture. These ants, especially *C. pertusus*, are most closely related to other ants in the genus *Myrmentoma*, and *C. pertusus* is morphologi-

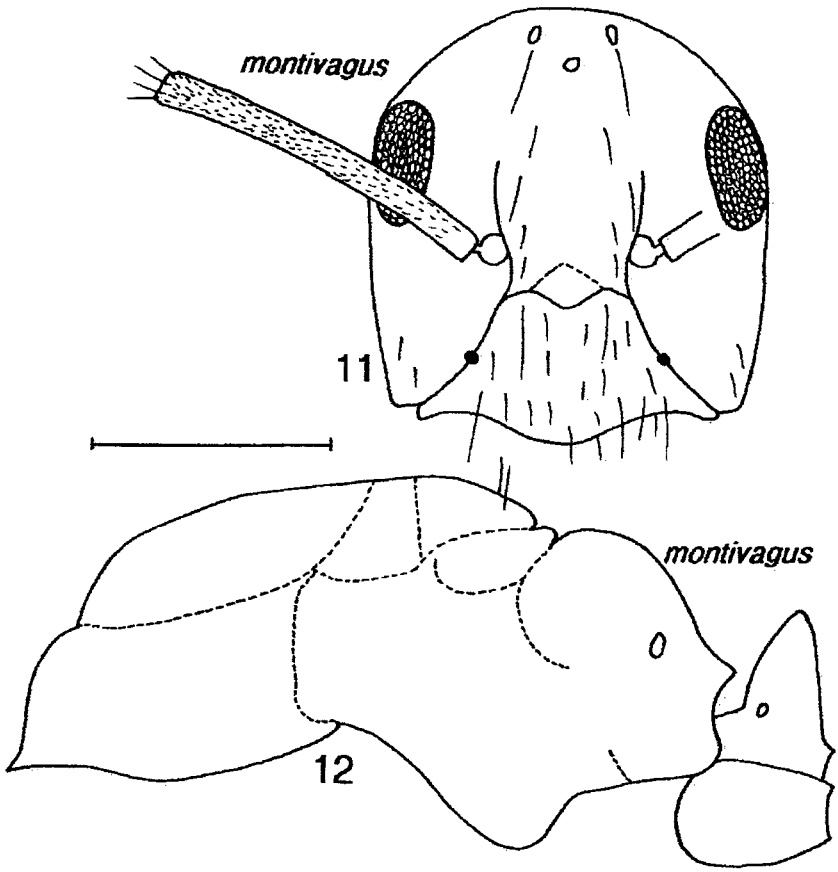
cally most similar to *C. essigi* Smith and somewhat to *C. sayi* Emery. Thus, this rarely collected complex is not likely to be confused with any other Neotropical group, and is easily separated by the shape of the mesosoma and the smooth cuticle.

KEY TO THE WORKERS OF THE ANTS OF THE *MONTIVAGUS* SPECIES COMPLEX:

1 Cheek and malar area with numerous erect hairs (about 20 on each side of lectotype, see Fig. 6), and decumbent hairs, which are not very apparent (Fig. 6) ..... *rectithorax*
— Cheek and malar area without erect hairs (Fig. 1), although 3 - 4 hairs may be found near the base of the mandibles and posterior edge of clypeus (Fig. 3), cheeks with scattered decumbent hairs (Fig. 1) 2
2(1)Cheek without coarse, obvious punctures; clypeus with erect hairs over entire surface (Fig. 3); Mexico and Guatemala 3
— Cheek with coarse, obvious punctures, each with flattened, decumbent hair (inset of Fig. 4); clypeus with erect hairs only along margins (Fig. 4); Trinidad ..... *pertusus*
3(2) Area separating faces of propodeum angulate (Fig. 8) ..... *montivagus*
— Posterior edge of propodeum rounded (Fig. 7) ..... *melinus*

CLAVE PARA LA IDENTIFICACIÓN DE OBRERAS DEL GRUPO *MONTIVAGUS*

1 Mejilla y área malar con pelos erectos y numerosos (20 en cada lado del lectotipo), y con pocos pelos reclinados, que no son obvios (Fig. 6) ..... *rectithorax*
— Mejilla y área malar sin pelos erectos (Fig. 1), aunque 3 - 4 pelos se pueden encontrar cerca de la base de la mandíbula, mejillas con pelos reclinados 2
2(1) Mejilla sin puntillos obvios y gruesos; clípeo con pelos erectos sobre toda la superficie (Fig. 3); México y Guatemala 3
— Mejilla con puntcillos obvios y gruesos (Fig. 4); clípeo con pelos erectos solamente cerca de los márgenes (Fig. 4); Trinidad ..... *pertusus*
3(2) Area en donde las dos faces del propodeo se unen en forma angulada (Fig. 8) ..... *montivagus*
— Area del propodeo redondeado (Fig. 7) ..... *melinus*



Figs 11 - 12. Head and mesosoma of female of *C. montivagus* (part of type series of *C. nitidus* var. *nuperus*): 11) Head; 12) Mesosoma and petiole. Scale is 1 mm.

LIST OF THE SPECIES OF THE *MONTIVAGUS* SPECIES COMPLEX

Camponotus (*Myrmentoma*) *melinus* W. Mackay, new species

Figs. 1, 2, 7 Map 1

Diagnosis. This species can be easily separated from most of the other species in this complex using the characters in the key. It can be separated from *C. montivagus* by the shape of the propodeum (compare Figs. 7 and 8). This species is also honey colored, whereas the other species are darker and usually bicolored with a darker gaster.

Description.

Major worker measurements (mm): HL 1.80 - 2.22, HW 1.58 - 2.02, SL 1.82 - 2.04, EL 0.53 - 0.64, CL 0.61 - 0.73, CW 0.70 - 0.80, WL 2.20 - 2.86, front femur length 1.54 - 1.75, front femur width 0.49 - 0.54. Indices: CI 88 - 91, SI 92 - 101, clypeal index 110 - 115, front femur index 31 - 32.

Mandibles with 5 teeth visible when closed; anterior border of clypeus convex, little evidence of notch (Fig. 1), clypeus without medial carina; sides of head broadly convex, head oval shaped; vertex convex; scape long, extending about half length past posterior border of head; maxillary palps long, six segmented, extending 4 segments past buccal cavity and nearly to foramen magnum (Fig. 2); labial palps 4 segmented, extending to end of fourth segment of maxillary palps; mesosoma nearly straight in profile (Fig. 7); propodeum rounded posteriorly (Fig. 7), dorsal face with well defined indentation posterior to mesopropodeal suture (Fig. 7), posterior face rounded and convex dorsally, concave ventrally; petiole with sharp apex in profile, nearly flattened when seen from behind. Erect hairs sparse on most surfaces, approximately 10 on clypeus, 6 - 8 on remainder of dorsum of head, few on coxae and trochanters, several on gaster, none on scapes, malar area, underside of head, mesosoma, petiole or remainder of legs; decumbent pubescence very sparse and short, located on head, scapes, legs and gaster.

Sculpture very fine, surfaces smooth and shining throughout.

Concolorous light brown.

Minor worker: Similar to the larger worker, except for the smaller size. This species is probably polymorphic and has no distinct minor worker caste.

Female: Unknown.

Male: Unknown.

Type series. Holotype major worker (CASC) and 13 miscellaneous sized workers (CASC, CWEM, LACM, MCZC, UNAM, USNM), MEXICO, Morelos (near Cuernavaca), 15 miles S El Guarda, 19°09'N 99°11'W, 14-xi-1946, WSR [William Ross?], #17319 [our number].

Material examined. Fourteen workers.

Distribution. Known only from the type locality in central México (Map 1).

Etymology. Based on Latin, *melinus* for honey colored.

Discussion. This species is very similar in appearance to *C. montivagus*, differing in that the propodeum is less angulate (compare Figs. 7 and 8), and it is of a lighter, honey color.

Biology. Unknown.

Camponotus (Myrmentoma) montivagus Forel

Figs. 3, 8, 11, 12 Map 1

Camponotus nitidus race *montivagus* Forel, 1885:347 - 348, major and minor workers, Guatemala: Tecpam [Tecpán]

Camponotus montivagus: Dalla Torre, 1893:243

Camponotus (Myrmamblys) montivagus: Forel, 1914:272

Camponotus (Myrmentoma) montivagus: Emery, 1925:118

Camponotus (Pseudocolobopsis) montivagus: Snelling, 1988:57; Bolton, 1995b:112

Camponotus nitidus var. *nuperus* Wheeler, 1914:58-59, **new synonymy**

Diagnosis. This species can be easily separated from *C. rectithorax* by the lack of numerous erect hairs on the malar area, from *C. melinus* in that the posterior corner of propodeum is angulate, and from *C. pertusus* as there are no erect hairs on the mesosoma and petiole, and the cheeks lack the coarse punctures.

Description.

Worker measurements (mm): HL 1.58 - 2.22, HW 1.58 - 1.92, SL 1.36 - 2.08, EL 0.46 - 0.58, CL 0.50 - 0.73, CW 0.60 - 0.83, WL 1.86 - 2.86, front femur length 1.16 - 1.76, front femur width 0.43 - 0.49. Indices: CI 86 - 100, SI 86 - 94, clypeal index 114 - 120, front femur index 28 - 37.

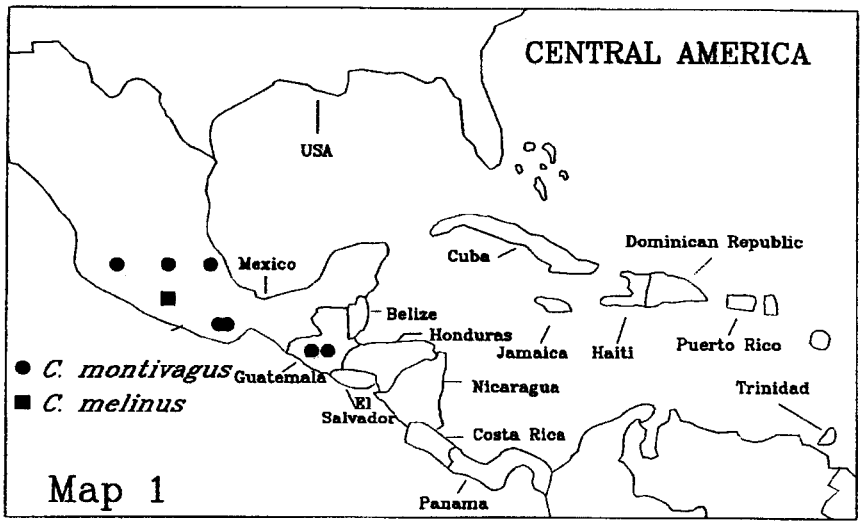
With most characters of species complex, noticeable exceptions include numerous, obvious, decumbent hairs on cheeks and malar area, reduction of erect hairs except, 10 - 15 on each mandible, 10 - 20 on clypeus, 4 - 8 on dorsum of head, none on malar area or cheeks (occasionally 3 - 4 near base of mandible, see Fig. 3), none on mesosoma or petiole, and a few on gaster; decumbent pubescence on head (cheeks and malar area) and on gaster.

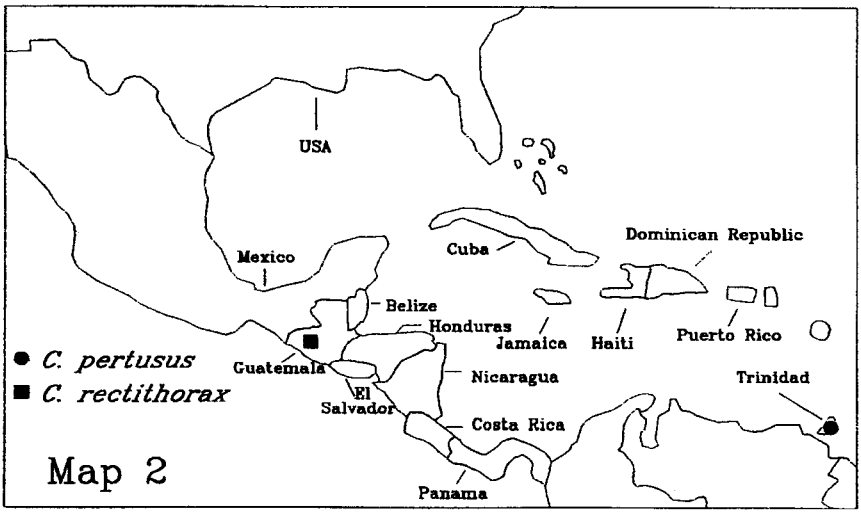
Female measurements (*nuperus*) (mm): HL 1.90, HW 1.70, SL 1.65, EL 0.58, CL 0.65, CW 0.73, WL 3.04, front femur length 1.52, front femur width 0.48. Indices: CI 89, SI 87, clypeal index 112, front femur index 32.

Approximately equal in size to largest worker, similar in most aspects, except head more elongate (compare measurements); ocelli small, but present; mesosoma adapted for flight, convex with well defined mesopropodeal notch (Fig. 12), remainder as in worker.

Male: Unknown.

Type series. *Camponotus montivagus*, Guatemala, Tecpam [Tecpán,





Map 1. Distribution of *C. montivagus* and *C. melinus*.
Map 2. Distribution of *C. pertusus* and *C. rectithorax*.

see type series of *C. rectithorax*], 7000 feet, M. Stoll [not seen]. *Camponotus nitidus* var. *nuperus*, Guerrero Mill. Hidalgo, Mexico, W. M. Mann (MCZ Type #21532, 5 workers, 1 female MCZC, 3 workers LACM) [seen] [note: Wheeler, 1914, states there were 11 workers and a female in type series].

Material examined. Forty two workers and 1 female, including MEXICO: Veracruz, 22.5KW Jalapa, 6-vi-1988, 2080 meters, W. MacKay

#10860 (1 worker CWEM), Michoacán, 10 mi NW C. Hidalgo, 6-iii-72, F. Parker & D. Miller (1 minor USNM), Oaxaca, Villa Hidalgo, 10-1981 (4 workers CWEM), Hwy. 175, 7.6 rd mi S Puerto del Sol, 9300' 17-vii-1973, R. R. Snelling & T. W. Taylor, #73-113 (21 workers LACM, 3 workers MCZC, 3 workers USNM), Hidalgo, Guerrero Mill (8 workers, 1 female MCZC, LACM). GUATEMALA: San Lucas Tolimán, 3-i-1912, W. Wheeler (2 workers AMNH), Tecpam (locality of type series, not seen).

Distribution. México and Guatemala.

Discussion. This is the most commonly collected species of this complex, and can be easily separated by characters in the key and in the diagnosis. *Camponotus montivagus* var. *nuperus* is clearly a synonym, differing from the "typical" *C. montivagus* only in that the mesosoma is lighter in color.

Biology. Almost unknown, the specimen from Michoacán was collected in a bromeliad. Specimens from Veracruz (#10860) were collected in a flat area of pine and hardwoods, in an area of clay loam soils with lots of rocks. The ants were nesting in a rotten stump.

Camponotus pertusus W. Mackay, new species

Figs. 4, 5, 9 Map 2

Diagnosis. This species can be easily separated from the other three species as it is the only one with numerous erect hairs on the mesosoma and petiole (Fig. 9).

Description.

Worker measurements (mm): HL 1.56 - 1.64, HW 1.54 - 1.56, SL 1.30 - 1.36, EL 0.39, CL 0.48 - 0.51, CW 0.60 - 0.61, WL 1.96 - 1.98, front femur length 1.14 - 1.16, front femur width 0.41 - 0.43. Indices: CI 95 - 100, SI 83, clypeal index 120 - 125, front femur index 36 - 37.

Mandibles with 5 teeth, basalmost tooth turned inward towards clypeus (Fig. 4); anterior border of clypeus with deep notch (Fig. 4), clypeus convex with little evidence of carina; sides of head convex and broadly rounded, widest at posterior edge of eyes; vertex weakly convex; scape relatively long, extending past posterior border of head by slightly more than one funicular segment; maxillary palps 6 segmented (Fig. 5), long, extending 3 1/2 segments past buccal cavity; labial palps about half length of maxillary palps; mesosoma as in *C. montivagus*, with angulate propodeum (Fig. 9); petiole thin in profile, anterior petiolar face convex, posterior face nearly straight, petiolar node not sharply marginate (Fig. 9) as in *C. montivagus* (Fig. 8).

Erect hairs scattered over body, 8 - 10 along margins of clypeus (Fig. 4), none on inner surface, few on other surfaces of head, except on

mandibles, scapes without erect hairs, except at apex, pronotum with 0 - 3 hairs, mesonotum with 2 hairs, propodeum with 0 - 3 hairs at angle, petiole with 5 - 8 hairs, gaster with numerous hairs at edge of terga, as well as surfaces between terga; decumbent pubescence very sparse, on scapes, cheeks (Fig. 4) and gaster.

Sculpture fine, consisting of punctures on anterior part of head (mixed with larger punctures on cheeks, each with a thickened, decumbent hair, see inset of Fig. 4), changing into coriaceous sculpture on posterior of head, coriaceous on mesosoma, very fine, transverse striations on gaster.

Color medium brown, head and gaster slightly darker.

Female: Unknown.

Male: Unknown.

Type series. Holotype worker (USNM) and 2 paratype workers (USNM, CWEM), TRINIDAD, Summer 1908 [pin through 0, thus difficult to read], O. W. Barrett, top specimen on pin is holotype, second damaged specimen is paratype.

Material examined. Three workers.

Distribution. Known only from Trinidad.

Etymology. From Latin, perforated, referring to the cheek with large punctures.

Discussion. This species can be easily separated from all other South American species of *Camponotus* by the strongly angulate propodeum and the long, erect hairs on the mesosoma and petiole (Fig. 9). It may occur only on Trinidad, but should be expected to be found at least in Venezuela. The other three species of the complex occur in México and Guatemala, although they may occur throughout the northern part of Central America and possibly into Texas. This new species is very closely related to *C essigi*, and could be easily confused with it. It differs in that angle of the propodeum is more rounded and the decumbent hairs on the gaster are longer (0.004 mm versus 0.003 mm) and coarser. The mesosoma is also flatter as seen in profile. This species may not belong in the *montivagus* group and perhaps should be moved to the *caryae* group, but a strong argument could be made for including *C. essigi* in the *montivagus* group. Additional material will be necessary, especially the females of *C. pertusus*, to deal with this situation, and further speculation at this time would be pointless.

Biology. Unknown.

Camponotus rectithorax Forel, new Status

Figs. 6, 10 Map 2

Formica nitida Norton, 1868a:60

Formica (*Camponotus*) *nitida*: Norton, 1868b:2

Camponotus nitidus: Forel, 1879:82-83; Dalle Torre, 1893:245

Camponotus montivagus var. *rectithorax* Forel 1895:44

Replacement name for *Camponotus nitida* Norton, 1868b:2 (junior secondary homonym of *Formica nitida* Smith, 1859:138)

Camponotus (*Myrmentoma*) *montivagus* var. *rectithorax*: Emery, 1925:118; Kempf, 1972:47

Description

Worker measurements (mm): HL 1.88, HW 1.64, SL 1.68, EL 0.53, CL 0.66, CW 0.71, WL 2.42, front femur length 1.52, front femur width 0.54. Indices: SI 89, CI 87, clypeal index 108, front femur index 36.

Anterior border of clypeus strongly notched (Fig. 6), concave, clypeal surface convex, carina present, but broader than in most species of *Camponotus*; propodeum strongly angulate, dorsal face convex anteriorly, concave posteriorly (Fig. 10), posterior face concave; petiole thick in profile, anterior petiolar face convex, posterior face straight, petiolar node with sharp apex in profile; broadly rounded from behind.

Erect hairs very sparse on most surfaces, numerous on clypeus, cheeks and malar area (Fig. 6), few on dorsum of head or ventral surface of head, none on scape, except apex, none on mesosoma or petiole, scattered on gaster; decumbent pubescence nearly absent, very tiny, scattered on cheeks and some on gaster.

Sculpture coriaceous on most surfaces, a few elongate punctures on cheeks, posterior to mandibles, relatively smooth and shining.

Color dark brown, gaster darker than remainder of ant.

Female: Unknown.

Male: Unknown.

Type series. Lectotype worker, GUATEMALA, Techam, 7000', Forel (MSZC #21531), second specimen, presumably in the Museum d'Histore naturelle, Geneve, not found. Techam cannot be located on maps or in a Gazetteer of Guatemala. It appears to be a misspelling of Tecpam, which is itself a misspelling of Tecpán, located at 14°46'N 90°00'W, which is plotted on the map.

Material examined. One worker.

Distribution. Known only from type locality.

Discussion. The mesosomae of ants of this complex are generally more or less straight, with the mesosoma of this species (Fig. 10) being slightly straighter than other species. This species differs from all others in the group as the malar area and cheeks have abundant, erect hairs. Therefore it is easily recognized. It cannot be a synonym of *C. montivagus*

Myrmecology, J. Trager ed. Brill pubs. pp.55-78.
Wheeler, W.M. 1913. Corrections and additions to "List of type species of the genera and subgenera of Formicidae". Annals of New York Acad. of Sciences 23:77-83.
Wheeler, W.M. 1914. Ants collected by W.M. Mann in the state of Hidalgo, Mexico. Journal New York Entomological Society 22:37-60.

as both species occur at Tecpán, Guatemala.

Biology. Norton (1868a) states that this species "inhabits the mountains of Orizaba, where it lives in little companies under the bark of pines".

ACKNOWLEDGMENTS

We would like to thank Roy Snelling (LACM), Stefan Cover (MCZC), Mark Smethurst (AMNH), David Smith (USNM) and Darell Ubick (CASC) for the loan of specimens, without which this work would not have been possible.

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