

Lattke, J. E., Fernández, F., Palacio, E. E. 2007. Identification of the species of *Gnamptogenys* Roger in the Americas, pp. 254-270. In Snelling, R. R., B. L. Fisher, and P. S. Ward (eds). *Advances in ant systematics (Hymenoptera: Formicidae): homage to E. O. Wilson – 50 years of contributions*. Memoirs of the American Entomological Institute, 80.

## IDENTIFICATION OF THE SPECIES OF *GNAMPTOGENYS* ROGER IN THE AMERICAS

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### ABSTRACT

A dichotomous key is presented for identifying workers of recent species of the genus *Gnamptogenys* in the Americas. Included are 81 species with their known distribution. *G. wilsoni* Lattke, n. sp., is described.

**Key words:** Hymenoptera, Formicidae, *Gnamptogenys*, taxonomy, identification key, Americas.

**Resumen:** Se presenta una clave dicotómica para identificar a las especies recientes de obreras del género *Gnamptogenys* en América. Se incluyen 81 especies con su distribución conocida. Se describe *G. wilsoni* Lattke, n. sp.

**Palabras claves:** Hymenoptera, Formicidae, *Gnamptogenys*, taxonomía, clave para identificación, América

## INTRODUCTION

Ants, in accordance with their ecological importance, numerical dominance, and considerable diversity are becoming ever more present in studies as biological indicators (Alonso, 2000). The genus *Gnamptogenys* is one of the larger groups with more than 120 species worldwide, of which over 80 are known from the New World. It ranks fifth place amongst the poneromorph subfamilies in number of species (Bolton, 1995) and tenth place amongst the ant genera recovered in Neotropical leaf litter samples (Ward, 2000). Most species inhabit mesic forested areas, nesting in decomposing wood on the ground and hunting their prey on the soil and amongst the leaf litter. The New World fauna was recently revised by Lattke (1995) but subsequent work has increased the number of species, and some new synonyms have been determined (Lattke, 2002; Lattke *et al.*, 2004; Pacheco *et al.*, 2004). Given these changes, a new version of the key for identifying the species is presented. The results should be confronted with descriptions in order to support the conclusions. The unnamed taxa "species A, B, and C" are included in the key but not in the species list, and will be described in a future paper.

## LIST OF RECENT NEW WORLD GNAMPTOGENYS SPECIES

- G. acuminata* Emery: Tropical South America
- G. acuta* (Brown): Colombia to Bolivia
- G. alfaroi* Emery: Costa Rica to Ecuador
- G. ammophila* Lattke: southeastern Venezuela
- G. andina* Lattke: Colombia - Ecuador
- G. annulata* Mayr: Costa Rica to Tropical South America
- G. banksi* (Wheeler): Panama to Ecuador
- G. biquetra* Lattke: Panama
- G. bispinosa* (Emery): Costa Rica to Colombia
- G. bisulca* Kempf and Brown: Costa Rica to Ecuador, Andes
- G. boliviensis* Lattke: northern Bolivia
- G. bruchi* (Santschi): northern Argentina
- G. brunnea* Lattke: western Colombia
- G. bufonis* (Mann): southern Mexico - Nicaragua
- G. caelata* Kempf: Colombia - southern Brazil
- G. concinna* (F. Smith): Mexico to Tropical South America
- G. continua* Mayr: Mexico to Tropical South America
- G. cuneiforma* Lattke: Panama
- G. curvoclypeata* Lattke: Venezuela to Colombia
- G. ejuncida* Lattke: Colombia
- G. enodis* Fernández Colombia
- G. ericae* Forel: northern South America
- G. extra* Lattke: western Colombia - Ecuador
- G. falcaria* Lattke: Hispaniola
- G. falcifera* Kempf: northern South America
- G. fernandesi* Lattke: Venezuela to Ecuador
- G. fieldi* Lattke: north-central Venezuela
- G. flava* Pacheco, MacKay & Morgan: Bolivia
- G. gentryii* Lattke: southwestern Colombia
- G. gracilis* (Santschi): Guyana Shield
- G. haenschi* Emery: Costa Rica - Tropical South America
- G. hartmanni* (Wheeler): southern U.S. - northern South America

- G. haytiana* (Wheeler & Mann): Hispaniola  
*G. horni* Santschi: Panama to Bolivia  
*G. ilimani* Lattke: Bolivian Andes  
*G. ingeborgae* Brown: Colombia  
*G. insularis* Lattke: Hispaniola  
*G. interrupta* Mayr: Mexico to Tropical South America, Jamaica  
*G. kempfi* Lenko: Brazil & Peru  
*G. lanei* Kempf: lower Amazon watershed  
*G. laticephala* Lattke: Ecuador  
*G. lavra* Lattke: SE Brazil  
*G. lineolata* Brown: Hispaniola  
*G. lucaris* Kempf: southern Brazil  
*G. mecotyle* Brown: Panama - Tropical South America  
*G. mediatrix* Brown: Cuenca Amazónica  
*G. menozzii* Borgmeier: southern Brazil  
*G. mina* (Brown): northern South America  
*G. minuta* (Emery): Belize - Brazil  
*G. moelleri* (Forel): Tropical South America  
*G. mordax* (F. Smith): Mexico to Tropical South America  
*G. nana* Kempf: Brazil & northern Argentina  
*G. nigrivitreata* Lattke: Colombia  
*G. perspicax* Kempf & Brown: Colombia to Ecuador  
*G. petiscapa* Lattke: northwestern Venezuela  
*G. pilosa* Lattke: western Colombia  
*G. pittieri* Lattke: north central Venezuela  
*G. pleurodon* (Emery): Tropical South America  
*G. porcata* (Emery): Honduras to Bolivia  
*G. rastrata* (Mayr): southern Brazil  
*G. regularis* Mayr: Mexico to Paraguay  
*G. reichenspergeri* (Santschi): Orinoco - Amazon watershed  
*G. relicta* (Mann): Orinoco - Amazon watershed  
*G. rimulosa* (Roger): southern Brazil  
*G. rumba* Lattke: Cuba  
*G. schmitti* (Forel): Hispaniola  
*G. semiferox* Brown: Hispaniola  
*G. siapensis* Lattke: southern Venezuela  
*G. simulans* (Emery): Costa Rica  
*G. stellae* Lattke: Costa Rica, Colombia  
*G. striatula* Mayr: Mexico to northern Argentina, Caribbean  
*G. strigata* (Norton): Mexico to Colombia  
*G. striolata* (Borgmeier): southwestern Brazil  
*G. sulcata* (F. Smith): Mexico to tropical South America  
*G. tortuolosa* (F. Smith): Amazon - Orinoco watershed  
*G. transversa* Lattke: Panama  
*G. triangularis* Mayr: Florida, USA.; Costa Rica to Argentina  
*G. vriesi* Brandão & Lattke: Ecuador  
*G. wilsoni* Lattke, **n. sp.**: southeastern Brazil

**KEY TO THE NEW WORLD SPECIES OF *GNAMPTOGENYS* (workers)**

1	Frontal carina not covering all of base of scape, at least neck visible; petiolar spiracle facing ventrolaterally, not in depression; promesonotal suture well marked, totally interrupting dorsal mesosomal sculpture .....	2
--	Frontal carina not totally covering base of scape, at least neck visible; petiolar spiracle facing ventrolaterally, not in depression; promesonotal suture absent to well-impressed but never interrupting dorsal mesosomal sculpture.....	25
--	Frontal carina in dorsal view covering all of scape base, including condyle and neck; petiolar spiracle facing ventrally, located in depression; promesonotal suture absent to lightly impressed, never interrupting dorsal mesosomal sculpture .....	75
2(1)	Petiolar node with semiparallel anterior and posterior margins in lateral view, both forming approximate right angles with the dorsal margin (Fig. 1); cephalic vertex usually smooth and shining, sometimes with weak transverse striae.....	3
--	Petiolar node with a single curved anterodorsal margin or anterior and dorsal margins separated by a blunt angle (Figs. 2-4); cephalic vertex usually with sculpturing .....	6
3(2)	Mesosomal dorsum with large smooth and shining areas .....	4
--	Mesosomal dorsum totally sculptured, usually costulate or rugulose.....	5
4(3)	Metanotal groove well-impressed, interrupting dorsal mesosomal sculpture; metacoxal dorsum unarmed; propodeal declivity lacking lobes.....	<i>relicta</i>
--	Metanotal groove absent; metacoxal dorsum with a lobe or denticle; propodeal declivity with anterolateral lobes.....	<i>reichenspergeri</i>
5(3)	Postpetiolar dorsum transversely rugulose; body yellowish .....	<i>haytiana</i>
--	Postpetiolar dorsum longitudinally costulate; body black to dark brown .....	<i>mina</i>
6(2)	Propodeal spiracle separated from declivitous margin by more than one diameter in lateral view; metacoxal dorsum unarmed .....	<i>lavra</i>
--	Propodeal spiracle separated from declivitous margin by less than one diameter; metacoxal dorsum with a lobe or denticles .....	7
7(6)	Mesosomal dorsum with a well defined metanotal groove .....	8
--	Metanotal groove absent.....	12
8(7)	Dorsum of abdominal tergites III and IV smooth and shining.....	<i>gentryi</i>
	Dorsum of abdominal tergites III and IV longitudinally costulate.....	9
9(8)	Subpetiolar process subquadrate in lateral view, with a posterior angle.....	10
--	Subpetiolar process forming an anterior projecting lobe, without a posterior angle.....	11
10(9)	Area between promesonotal suture and metanotal groove narrow and of uniform width; anterior mesonotal margin convex .....	<i>bisulca</i>
--	Area between promesonotal suture and metanotal groove wide and ovaloid; anterior mesonotal margin forms a blunt angle.....	species <b>A</b>
11(9)	Anterior margin of clypeal lamella bluntly angular; cephalic vertex longitudinally costulate .....	<i>brunnea</i>
--	Anterior margin of clypeal lamella evenly convex; cephalic vertex with less than five transverse costulae .....	species <b>B</b>

12(7)	Petiolar node erect in lateral view, the dorsal margin separated from the anterior and posterior margins by blunt angles (Fig. 2) .....	13
--	Petiolar node posteriorly inclined in lateral view, with a broadly curved anterodorsal margin contrasting with the angle separating the dorsal margin from the posterior margin (Figs. 3-4) .....	15
13(12)	SL < 1.1 mm .....	14
--	SL > 1.1 mm .....	<i>moelleri</i>
14(13)	Propodeal declivity with 5-11, sometimes fewer, longitudinal costulae between spiracles and 1-3 transverse costulae between each spiracle and the longitudinal costulae (Fig. 6); scapes with sparse pilosity, less than six decumbent and semi-erect hairs .....	<i>striatula</i>
--	Propodeal declivity with 13-16 longitudinal costulae between spiracles and no transverse costulae between each spiracle and the longitudinal costulae (Fig. 5); scapes with dense, uniformly decumbent pilosity, more than six decumbent and semi-erect hairs .....	<i>ammophila</i>
15(12)	Petiolar node with blunt or pointed apex overhanging posterior margin in lateral view; subpetiolar process in ventral view with edge of mostly uniform width, widening only at union with sternite (Fig. 7) .....	16
--	Petiolar node with apex barely overhanging posterior margin; subpetiolar process in ventral view cuneiform, anteriorly of uniform width, widening posteriorly into a bifurcate process (Fig. 8) .....	22
16(15)	Petiolar node with a blunt apex in lateral view .....	17
--	Petiolar node with an acute apex .....	<i>acuta</i>
17(16)	Postpetiolar sternite with a median smooth and shining area; vertex usually with 4 - 5 transverse costulae next to vertexal carina (Fig.9).....	<i>gracilis</i>
--	Postpetiolar sternite totally costulate or striate; cephalic vertex usually with a single, occasionally more than three, transverse costulae next to vertexal carina (Fig. 10) .....	18
18(17)	Scape in frontal view with more than 10 erect hairs along its posterior margin, not including basal pilosity (Fig. 12) .....	19
--	Scape in frontal view with fewer than 10 erect hairs along its posterior margin (Fig. 11) .....	20
19(18)	Body and legs brown; body striate or costulate, with abundant decumbent pubescence; subpetiolar process forming a rounded lobe, without sharp angles in lateral view .....	<i>ejuncida</i>
--	Body black and legs ferruginous; body usually costate, with sparse decumbent pubescence; subpetiolar process usually with a sharp anterior angle, blunt in Central American specimens .....	<i>porcata</i>
20(18)	Tibiae and scapes with 5 or more erect hairs .....	21
--	Tibiae and scapes with 1 or no semi-erect or semi-decumbent hairs .....	<i>extra</i>
21(20)	Propodeal declivity with transverse costulae; petiolar node slightly pedunculate (Fig. 4) .....	<i>pleurodon</i>

--	Propodeal declivity with longitudinal costulae; petiolar node sessile (Fig. 13).....	<i>nigrivitre</i>
22(15)	Postpetiolar sternite with well-defined costulae or striae; propodeal dorsum not depressed below level of mesonotum in lateral view; dorsal and declivitous propodeal faces confluent in lateral view .....	23
--	Postpetiolar sternite with weakly-defined rugulae; propodeal dorsum depressed below level of mesonotum in lateral view; dorsal and declivitous propodeal faces separated by ridge in lateral view .....	<i>pittieri</i>
23(22)	Scape with moderate to scarce pubescence, with 5 or more erect hairs.....	24
--	Scape with dense white pubescence, with 0 - 2 erect hairs.....	<i>ilimani</i>
24(23)	HW > 0.84 mm, WL > 0.35 mm; OI < 0.16 .....	<i>andina</i>
--	HW < 0.84 mm, WL < 0.35 mm; OI > 0.16 .....	<i>strigata</i>
25(1)	Scape not reaching the preoccipital margin in dorsal view.....	26
--	Scape surpassing preoccipital margin by at least one apical width.....	42
26(26)	Mandibular dorsum with striae, costulae or rugulae on at least one-fourth of its length ...	27
--	Mandibular dorsum totally smooth and shining, with sparse punctures .....	29
27(26)	Body with regular striae or costulae; mandibles triangular or semi-triangular; not found in Antilles .....	28
--	Body with irregular costulae; mandibles falcate; Antillean (Hispaniola) .....	<i>falcaria</i>
28(27)	Metacoxal dorsum unarmed; eye small (OI < 0.1); mandibular dorsal surface densely striate .....	<i>haenschi</i> (in part)
--	Metacoxal dorsum with lobe; eye large (OI > 0.2); mandibular dorsal surface costulate on basal fourth or less, the rest smooth and shining .....	<i>hartmanni</i> (in part)
29(26)	Propodeal dorsum mostly transversely striate.....	30
--	Propodeal dorsum mostly longitudinally striate or costulate .....	32
30(29)	Head subquadrate in dorsal view (CI > 0.78); body brown to dark brown.....	31
--	Head rectangular, (CI < 0.78); body black .....	<i>alfaroi</i>
31(30)	Mesosoma and petiole costulate; both propodeum and metacoxal dorsum edentate .....	<i>kempfi</i>
--	Mesosoma and petiole finely striate; both propodeum and metacoxal dorsum dentate .....	<i>annulata</i>
32(29)	Clypeal lamella laterally rounded in dorsal view, never angular; subpetiolar process usually rounded in lateral view, rarely with a posterior tooth .....	33
--	Clypeal lamella with sharp lateral angles; subpetiolar process with a posterior tooth in lateral view .....	39
33(32)	Mandible semi-triangular to semi-falcate in dorsal view; metanotal groove well-defined .....	34

- Mandible triangular; metanotal groove absent..... *nana*
- 34(33) Metacoxal dorsum unarmed, at most with a low tubercle or swelling..... 35  
 -- Metacoxal dorsum with a lobe or tooth ..... 36
- 35(34) Body striate; clypeal lamella laterally with blunt angles in dorsal view, medially anteriorly projecting and with a small median concavity.....*stellae*  
 -- Body costulate; clypeal lamella with a broad median concavity and laterally rounded in dorsal view..... *simulans*
- 36(34) Metacoxal dorsum with a low triangular lobe; HW < 1.12 mm, WL < 1.81 mm ..... 37  
 -- Metacoxal dorsum with a slender and parallel-sided lobe or tooth; HW > 1.12, WL > 1.81 mm.....*mordax*
- 37(36) Propodeal spiracle separated from declivity by less than its diameter in lateral view .....  
 .....*wilsoni*  
 -- Propodeal spiracle separated from declivity by more than its diameter..... 38
- 38(37) Cephalic dorsum striate; propodeal declivity inclined and relatively straight in lateral view; with weakly developed lateral lobes..... *boliviensis*  
 -- Cephalic dorsum costulate; propodeal declivity with a posterior concavity formed by well-developed anterolateral lobes..... *continua*
- 39(32) Metanotal groove well-defined, visible in any angle; subpetiolar process without a posterior tooth in lateral view ..... 40  
 -- Metanotal groove weakly defined, visible only in limited angles; subpetiolar process with posterior tooth in lateral view ..... 41
- 40(39) Anterior margin of clypeal lamella straight in dorsal view; metacoxal dorsum with a lobe .....*rimulosa*  
 -- Anterior margin of clypeal lamella with a bluntly angular concavity; metacoxal dorsum unarmed.....*biquetra*
- 41(39) Propodeal declivity with longitudinal costulae that converge posteriorly; anterior face of petiolar node transversely costulate; mesometapleural suture absent or weakly impressed .....*horni*  
 -- Propodeal declivity with parallel longitudinal costulae; most of anterior face of petiolar node longitudinally costulate, but frequently with a basal strip of transverse costulae that occasionally covers all of anterior face; mesometapleural suture well-impressed.....*regularis*
- 42(25) Mandible elongate, falcate or semi-falcate in dorsal view, with just the apex touching or overlapping the opposite mandible when totally closed ..... 43  
 -- Mandible triangular or semi-triangular in dorsal view, with a fourth or more of the masticatory border overlapping the opposite mandible when closed..... 48
- 43(42) Propodeal declivity with teeth or denticles; metacoxal dorsum with tooth; mostly continental species ..... 44  
 -- Propodeal declivity rounded, without teeth or denticles; metacoxal dorsum unarmed; endemic to Hispaniola ..... 47

--	Propodeal declivity with teeth or denticles; metacoxal dorsum unarmed; Cuban endemic .....	<i>rumba</i>
44(43)	Mandible with short triangular tooth on basal internal margin .....	45
--	Mandible with a lobe or broad convexity on basal internal margin .....	<i>mediatrix</i>
45(44)	Clypeus with a lobe anterior to each antennal fossa; each lobe partially covers the clypeal lamella in dorsal view; mesonotal spiracle in depression below level of surrounding integument .....	<i>laticephala</i>
--	Clypeus without lobes between antennal fossae and lamella; mesonotal spiracles at same level as surrounding integument .....	46
46(45)	Antennal scape surpasses posterior cephalic margin by at least twice its maximum width; preoccipital lamella visible, with a median convexity in cephalic dorsal view.....	species C
--	Antennal scape surpasses posterior cephalic margin by no more than one maximum diameter .....	<i>banksi</i>
47(43)	Mandible elongate and slender; propodeal dorsal surface with smooth transverse costulate .....	<i>schmitti</i>
--	Mandible shorter and thicker; propodeal dorsal surface with vermiculate longitudinal costulae .....	<i>semiferox</i>
48(42)	Mandibular dorsal surface mostly smooth and shining, sometimes with striae or costulae extending not beyond the basal third; mesosomal dorsum usually without transverse sutures, if otherwise, then the ant is ferruginous and finely striate .....	49
--	Mandibular dorsal surface mostly striate or rugulose; metanotal groove well-impressed . .....	62
49(48)	HW > 1.4 mm; WL > 2.3 mm.....	50
--	HW < 1.4 mm; WL < 2.3 mm.....	51
50(49)	Mesosoma costulate; metacoxal dorsum with dorsal tooth; apex of petiolar node ending in a blunt angle in lateral view; body black .....	<i>tortuolosa</i>
--	Mesosoma striate; metacoxal dorsum unarmed; apex of petiolar node ending in a blunt point; body ferruginous.....	<i>concinna</i>
51(49)	Mesosoma striate; propodeal declivity with lateral longitudinal crests distinct from mesosomal striae.....	52
--	Mesosoma costulate; propodeal declivity without crests distinct from mesosomal striae .....	53
52(51)	Posterior face of petiolar node longitudinally costulate.....	<i>hartmanni</i> (in part)
--	Posterior face of petiolar node transversely costulate.....	<i>bruchi</i>
53(51)	Posterior face of petiolar node longitudinally costulate.....	54
--	Posterior face of petiolar node transversely costulate.....	58
54(53)	Clypeal lamella laterally angular; mandible semi-triangular, the internal and masticatory margins united by a broad convexity .....	55



- Clypeal lamella laterally rounded; mandible triangular, the internal and masticatory margins separated by an angle ..... 57
- 55(54) Petiolar node with a pointed apex in lateral view; propodeal declivity longitudinally costulate; body uniform brown ..... *acuminata*  
 -- Petiolar node sometimes with a posterior projection but never pointed; propodeal declivity usually transversely costulate, rarely longitudinal; color variable, usually with both brown and ferruginous parts, rarely totally brown ..... 56
- 56(55) Metacoxal tooth absent or vestigial; propodeal declivity without lateral lobes; body dark brown to bicolored ..... *sulcata*  
 -- Small metacoxal tooth present; propodeum with small lateral lobes; body yellow ... *flava*
- 57(54) Metacoxal dorsum with a lobe; clypeal lamella with two convexities; petiolar node with dorsal and posterior margins forming approximately a right angle in lateral view .....  
 ..... *transversa*  
 -- Metacoxal dorsum unarmed; clypeal lamella with a single convexity; petiolar node with an apical point that overhangs the posterior margin ..... *fernandesi*
- 58(53) Clypeal lamella laterally sharply angular ..... 59  
 -- Clypeal lamella laterally rounded or obtusely angular ..... 60
- 59(58) HW < 1.1 mm; WL < 1.7 mm; clypeal lamella with a straight anterior margin ..... *ericae*  
 -- HW > 1.1 mm; WL > 1.7 mm; clypeal lamella medially convex, laterally concave .....  
 ..... *curvoclypeata*
- 60(58) Propodeal declivity longitudinally costulate; clypeal lamella straight medially and rounded laterally in frontal view; mandible semi-triangular, the internal and masticatory margins united by a broad convexity ..... 61  
 -- Propodeal declivity transversely costulate; clypeal lamella medially concave, laterally convex laterally; mandible triangular, the internal and masticatory margins separated by an angle ..... *volcano*
- 61(60) Petiolar node with a more or less convex dorsal margin in lateral view; metacoxal dorsum with an acute tooth; subpetiolar process with sharp angles ..... *lucaris*  
 -- Petiolar node with a straight dorsal margin; metacoxal dorsum with a triangular tooth; subpetiolar process with blunt angles ..... *siapensis*
- 62(48) Scape usually smooth and shining with sparse punctulae ..... 63  
 -- Scape rugulose or striate (sculpture sometimes attenuated) ..... 70
- 63(62) Mandibular dorsal surface striate or rugulose; metacoxal dorsum toothed ..... 64  
 -- Mandibular dorsal surface smooth and shining; metacoxal dorsum unarmed ..... *insularis*
- 64(63) Masticatory margin of mandible with distinct denticles ..... 65  
 -- Masticatory margin of mandible edentate or with indistinct denticulation ..... 66
- 65(64) Propodeum unarmed; body striate ..... *lineolata*  
 -- Propodeum with denticles; body costulate ..... *ingeborgae*

- 66(64) Scape surpasses posterior cephalic margin by at least twice its apical width; HW > 1.1 mm; WL > 1.6 mm..... 67  
 -- Scape surpasses posterior cephalic margin by not more than its apical width; HW < 1.1 mm; WL < 1.6 mm ..... *rastrata*
- 67(66) Petiolar node shorter than wide in dorsal view ..... *lanei*  
 -- Petiolar node longer than wide in dorsal view ..... 68
- 68(67) Propodeal tooth longer than diameter of propodeal spiracle; subpetiolar process projecting anteriorly as a triangular lobe in lateral view..... *enodis* (in part)  
 -- Propodeal tooth shorter than diameter of propodeal spiracle; subpetiolar process subquadrate..... *menozzii*
- 69(62) Propodeal teeth lacking..... *haenschi* (in part)  
 -- Propodeal teeth present..... 70
- 70(69) Anterior pronotal margin with at least 5 rugulae or transverse costulae; eyes prominent and protruding ..... 71  
 -- Anterior pronotal margin with longitudinal costulae; eyes not prominent nor protruding, relatively flat..... *triangularis*
- 71(70) Cephalic vertex with 4 - 5 transverse costulae; anterior half of postpetiolar tergite rugose ..... 72  
 -- Vertex longitudinally costulate; anterior half of postpetiolar tergite longitudinally costulate ..... 73
- 72(71) Propodeal teeth at least as long as the distance between their bases; body ferruginous ....  
 ..... *bispinosa*  
 -- Propodeal teeth shorter; body black.....*perspicax*
- 73(71) Transverse costulae from the metanotum to the propodeum..... *cuneiforma*  
 -- Longitudinal costulae from the metanotum to the propodeum, partially effaced on the propodeal declivity ..... 75
- 74(73) Pronotum longitudinally costulate; subpetiolar process rectangular in lateral view.....  
 ..... *mecotyle*  
 -- Pronotum with anterior strip of transverse costulae; subpetiolar process shaped a modest lobe, without angles..... *enodis* (in part)
- 75(1) Body sculpture mostly granulose and opaque; clypeus without anteromedian denticles ..... 76  
 -- Body finely striate, silky and shining; clypeus without anteromedian denticles..... 78  
 -- Body rugulose or roughly costulate; clypeus with anteromedian denticles ..... 81
- 76(75) Mandible falcate, the masticatory margin edentate and concave .....*fieldi*  
 -- Mandible triangular, the masticatory margin fairly straight and denticulate..... 77
- 77(76) Metanotal groove well-impressed; spiracles of abdominal segments I and II shining and conspicuous .....*petiscapa*

- Metanotal groove absent; spiracles of abdominal segments I and II opaque and not conspicuous ..... *minuta*
- 78(75) Metanotal groove well-impressed ..... 79
- Metanotal groove absent or weakly impressed ..... 80
- 79(78) Clypeal lamella medially concave and with 2 angular lateral lobes; eyes prominent and globulose; WL > 3.0 mm ..... *vriesi*
- Clypeal lamella medially straight to slightly convex and laterally rounded; eyes not prominent; WL < 3.0 mm ..... *bufonis*
- 80(78) Mandible triangular, masticatory margin with distinct teeth ..... *falcifera*
- Mandible falcate, masticatory margin edentate ..... *interrupta*
- 81(75) Postpetiolar tergite mostly with arched punctate-rugulae, longitudinally costulate posteromedially; meso- and metatibial spurs present ..... *striolata*
- Postpetiolar tergite with rough longitudinal costulae; meso- and metatibial spurs absent ..... *caelata*

*Gnamptogenys wilsoni* Lattke, new species  
 Figures 14, 15

**TYPE MATERIAL**

**Holotype** worker. Brazil, Bahia, CEPC 6. Ilheus, 1986, J. Delabie 32. Deposited in CEPEC, Ilheus, Brazil.

**DIAGNOSIS**

Small (TL: 3 mm) with elongate and subfalcate mandible, internal margin and base of masticatory margin with convex lobe, mandibular apex broadly curved and tapering; propodeal spiracle slightly protruding posterad beyond propodeal declivity in lateral view.

**WORKER**

Measurements: HL 0.59, HW 0.52, ML 0.46, SL 0.43, ED 0.09, WL 0.94 mm; CI 0.88, SI 0.83, MI 0.89, OI 0.17. Total Length: 3 mm.

Head subquadrate in dorsal view, posterior cephalic margin straight, lateral margin broadly convex; clypeal lamella laterally curved, anterior margin broadly concave. Cephalic dorsum, and vertex longitudinally costulate, individual costula slightly rugulose, not smooth. Scape failing to reach posterior cephalic border by one apical width, dorsum smooth and shining with sparse punctulae. Mandible elongate, semifalcate, with internal and masticatory margins joined by convexity followed by brief concavity then straight to apical tooth, masticatory margin with series of low blunt denticles, better observed in oblique ventral view of mandible; low strigulae present along lateral basal third of mandible, the rest mostly smooth. Cephalic vertexal face flat, meeting dorsum at blunt angle; eye small, set just anterad of cephalic mid-length in dorsal view; ventral cephalic face longitudinally costulate.

Mesosoma with mostly flat dorsal margin in lateral view, propodeal dorsum curving onto declivity, declivitous margin slightly interrupted by spiracle; propodeal spiracle on low tubercle, situated less than one diameter from propodeal dorsum. Mesosomal side longitudinally costate; mesopleuron roughly triangular with small dorsal lobe; mesometapleural suture well-impressed; metapeural B propodeal suture indistinct or absent. Anterior pronotal margin with 3 transverse costae; mesosomal dorsum and propodeal declivity longitudinally costate; promesonotal suture absent, metanotal groove shallow but distinct.

Petiole in lateral view low, subquadrate, anterior margin brief and irregular, dorsal margin broadly convex, anterior face with 3 transverse costae, laterally and dorsally with longitudinal costae; posterior margin bound by single transverse costa in dorsal view, posterior face narrow and smooth. Subpetiolar process in lateral view subquadrate with acute angles anterad and posterad, ventral margin concave. Gaster longitudinally costate, constriction of abdominal pretergite I longitudinally costate, postpetiolar anterior face with narrow smooth strip; postpetiolar sternite with costae slightly weakened posteromedially. Protarsus opposite protibial strigil with single stout seta; procoxa smooth and shining in lateral view; metacoxa with low dorsal tooth. Antennae, mandibles, legs ferruginous; head brown, thorax and abdomen ferruginous brown.

**Queen, male.** Unknown.

**ETYMOLOGY**

The species is named in honor of Dr. Edward O. Wilson, in recognition of his outstanding professional career in myrmecology, tropical biology and biological diversity issues.

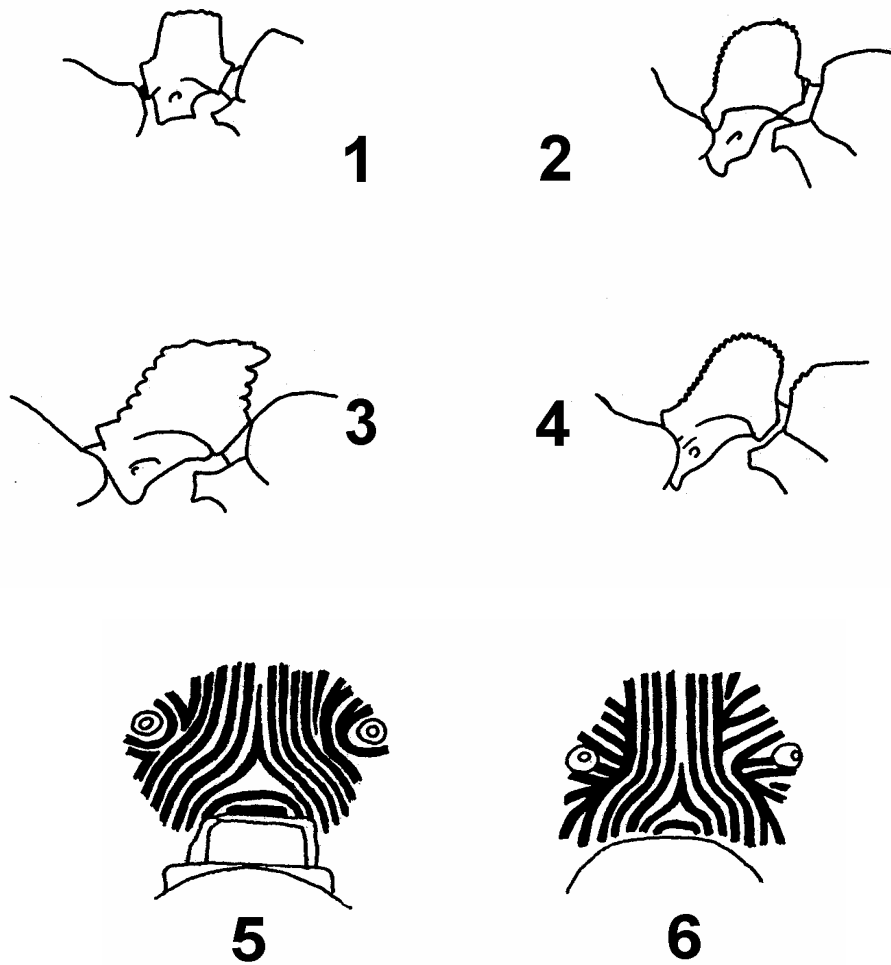
**COMMENTS**

Based upon several morphological features (e.g., head shape, mandibular shape, laterally rounded clypeal lamella, absent promesonotal suture) this species seems closest to the *mordax*-group (Lattke, 1995) but differs due to the posterior position of the propodeal spiracle, in close proximity to the propodeal declivity, as in the *striatula*-group. It falls closest to *G. boliviensis* and *G. continua* in the key. *G. wilsoni* can be separated from *G. boliviensis* by the position of the propodeal spiracle, which is separated by several times its diameter from both the propodeal dorsum and declivity. *G. boliviensis* is very finely costulate, the mandible lacks a convex lobe at the interface of the internal and masticatory margins, the apex remaining subparallel in dorsal view and ending abruptly, without an apical tooth. *G. continua* has a more narrow clypeal lamella than in *G. wilsoni*, with a deeper

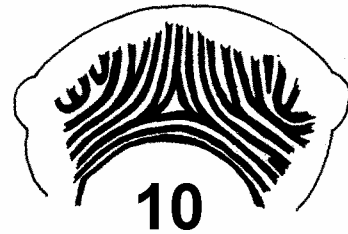
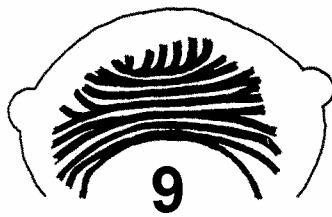
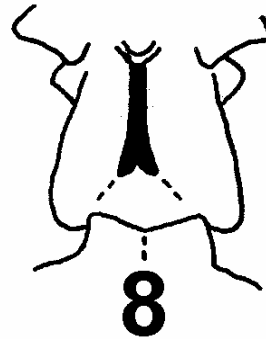
median concavity; its mandible has more developed denticles and no convex lobe along the internal margin; the cephalic vertex is smooth; and the propodeal spiracle is separated from the declivity by at least its diameter, and from the dorsal margin by several diameters. The mesopleuron in *G. wilsoni* seems to be constituted mostly by the katepisternum, with the anepisternum reduced to a small dorsal lobe.

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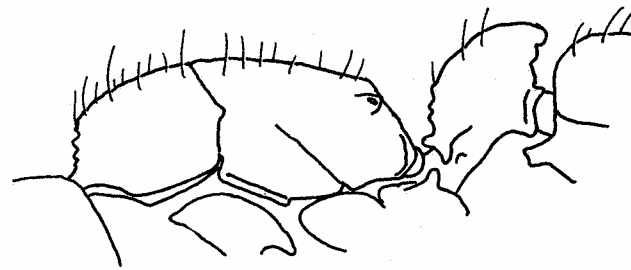
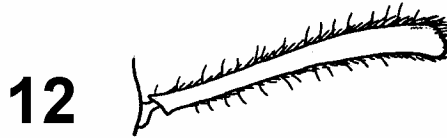
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**Figures 1-4.** Lateral view of petiole, (1) *G. relictata*, (2) *G. moelleri*, (3) *G. acuta*, (4) *G. pleurodon*.  
**Figures 5-6.** View of declivitous propodeal face, (5) *G. ammophila*, (6) *G. striatula*.



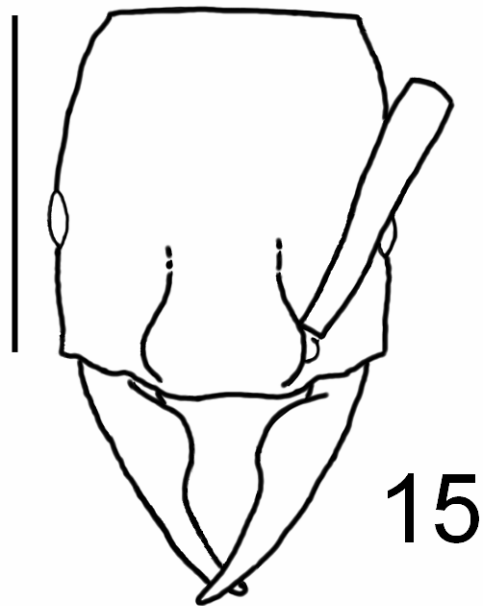
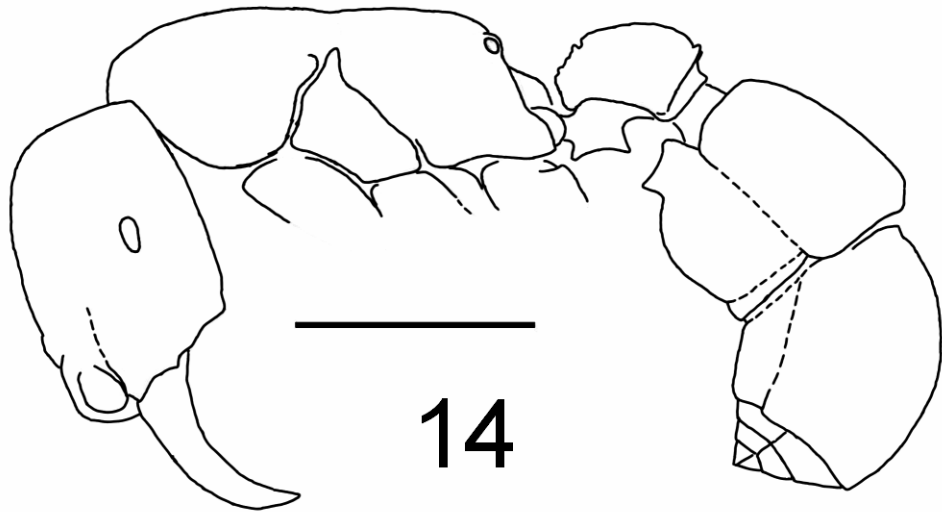
**Figures 7-8.** Ventral view of subpetiolar process, (7) *G. gracilis*, (8) *G. andina*.  
**Figures 9-10.** Cephalic vertex (9) *G. gracilis*, (10) *G. porcata*.



13

**Figures 11-12.** Frontal view of scape, (11) *G. ammophila*, (12) *G. striatula*.  
**Figure 13.** Lateral view of mesosoma of *G. nigrivitreata*.





**Figures 14-15.** *Gnampptogenys wilsoni*, n. sp. Scale bar = 0.5 mm, (14) Lateral view of body, (15) Dorsal view of head



**Addendum**

September 14, 2007

The following couplet:

53(51)	Posterior face of petiolar node longitudinally costulate.....	54
--	Posterior face of petiolar node transversely costulate.....	58

Should read:

53(51)	Posterior face of petiolar node transversely costulate.....	54
--	Posterior face of petiolar node longitudinally costulate.....	58