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Recognition and revision of the *Phelister panamensis* group (Histeridae: Histerinae: Exosternini)

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Abstract

Here we establish the *Phelister panamensis* species group, revising the eight included species (two of which are described as new). The nominate species is widely distributed in the Americas, from the US south to Argentina, and has probably expanded its distribution in association with domestic cattle, in whose dung it is often found. The group's monophyly is strongly supported by unique hooks on the apex of the male 8th sternite. Based on previous analyses, their affinities appear to be reasonably close to other 'core' *Phelister*, including the *P. haemorrhous* (which holds the type of the genus) and *P. pusio* groups. The *P. panamensis* group contains the following species: *Phelister panamensis* J.E. LeConte 1859, *Phelister acoposternus* Marseul 1853, *Phelister amplistrius* Schmidt 1893, *Phelister brevistrius* Marseul 1854, *Phelister pumilus* Erichson 1834, *Phelister muscicapa* Marseul 1870, *Phelister apurimac* **sp. nov.**, and *Phelister foveisternus* **sp. nov.** We also designate lectotypes for *Phelister omissus* Schmidt (=*P. panamensis*), *Phelister atrolucens* Casey (=*P. panamensis*), *Phelister amplistrius* Schmidt, *Phelister brevistrius* Marseul, *Phelister muscicapa* Marseul, *Phelister acoposternus* Marseul, *Phelister parvulus* Erichson (=*P. acoposternus*), *Phelister pumilus* (Erichson), and *Phelister confuseanus* Marseul (=*P. pumilus*).

Key words: Histeroidea, Taxonomy, biodiversity

Introduction

Among Neotropical Histeridae, the large genus *Phelister* Marseul remains one of the most taxonomically problematic, having served as a dumping ground for small Exosternini during much of its existence. Recent analyses have revealed its para- and polyphyletic nature (Caterino & Tishechkin, 2015), and some recent revisions have begun to address some of the most significant phylogenetic problems. Thus, many species of *Phelister* have been removed to other genera, like *Operclipygus* Marseul, *Baconia* Lewis, and *Strigister* Caterino & Tishechkin (Caterino and Tishechkin 2013a, 2013b, Caterino *et al.* 2013). Some species groups that remain within *Phelister* have been revised, such as the *haemorrhous* and *blairi* groups (Caterino and Tishechkin 2019, 2020, respectively). Still, *Phelister* remains highly diverse and complex, and additional work is needed to clarify the taxonomy of the lineages within it. Here, we address one clearly monophyletic lineage of *Phelister,* a group of mostly common species characterized by a distinctive male genitalic synapomorphy. Recognized informally as the *Phelister panamensis* group, all the included species exhibit a conspicuously hooked male 8th sternite. This treatment will facilitate identification of several widespread species and help define *Phelister* more precisely.

Most of the species recognized here as members of this group were resolved as a clade in the analysis of Caterino & Tishechkin (2015), as well as in the reanalysis of Caterino & Tishechkin (2019). In the latter they were resolved as the sister to the *P. haemorrhous* group, which contains the type of the genus. Thus, the justification for retaining the *panamensis* group within *Phelister* is strong, despite the genitalic synapomorphy that distinguishes it.

Accepted by J. Klimaszewski: 30 Jan. 2026; published: 18 Mar. 2026

Materials and methods

Specimens

Type material of all species was examined by one or both of the authors. Other specimens examined were assembled from a large number of institutions:

AKTC Alexey Tishechkin Collection in the California State Collection of Arthropods, Sacramento, USA
AMNH American Museum of Natural History, New York, USA
BMNH Natural History Museum, London, UK
CASC California Academy of Sciences Collection, San Francisco, USA
CHND Nicolas Degallier Collection, Paris
CHPWK Peter Kovarik Collection, Columbus, USA
CMNC Canadian Museum of Nature, Ottawa, Canada
CMNH Carnegie Museum of Natural History, Pittsburgh, USA
DZUP Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Brazil
ECOSUR El Colegio de la Frontera Sur, Campeche, Mexico
EMEC Essig Museum of Entomology, Berkeley, USA
FMNH Field Museum, Chicago, USA
FSCA Florida State Collection of Arthropods, Gainesville, USA
INBIO Instituto Nacional de Biodiversidad, San Jose, Costa Rica (now contained within El Museo Nacional de Costa Rica)
IPEAN Instituto de Pesquisas e Experimentação Agropecuárias do Norte (now Embrapa), Belém, Brazil
MCZC Museum of Comparative Zoology, Harvard University, Cambridge, USA
MNHN-F Museum National d'Histoire Naturelle, Paris, France
MNHN-C Museo Nacional de Historia Natural, Santiago, Chile
MSCC Michael Caterino Collection, Clemson, USA
MTEC Montana Entomology Collection (West Indian Beetles), Bozeman, USA
NHMM Natural History Museum Maastricht, Netherlands
NHRS Naturhistoriska Riksmuseets, Stockholm, Sweden
SEMC Snow Entomology Museum, University of Kansas, Lawrence, USA
UNL University of Nebraska, Lincoln, USA
USNM National Museum of Natural History, Washington, USA
UNESP Universidade Estadual Paulista, Faculdade de Engenharia de Ilha Solteira, Ilha Solteira, Brazil
ZMHB Zoological Museum of Humboldt University, Berlin, Germany

We present brief, diagnostic descriptions for most species, emphasizing character systems where species-level differences are typically most evident. The 'remarks' sections summarize the most distinctive key characters of each species. The morphological terminology follows Caterino & Tishechkin (2013b). Total body length is measured from the anterior margin of the pronotum to the posterior margin of the elytra (to exclude preservation variability in head and pygidial extension), while width is taken at the widest point, generally near the elytral humeri. Ten specimens were measured wherever possible.

Verbatim data are provided for holotypes and lectotypes, and summary data for all other material of described species (Appendix 1). Within verbatim records, data are enclosed in double quotes, with data on separate labels separated by a slash '/'. All coordinates in square brackets ([ ]) were interpreted by the authors from label data, with the number of decimal places reflecting our estimated degree of confidence.

Conventional imaging was done using a Visionary Digital's 'Passport' imaging system, based on a Canon D7 with MP-E 65mm 1–5×macro zoom lens, stacking images using Helicon Focus (HeliconSoft, Kharkiv, Ukraine). SEM imaging used a Zeiss EVO 40, with specimens sputter coated with gold where allowed by curators.

Results

Taxonomy

The *Phelister panamensis* group

Diagnosis. Definitively recognizing members of the *P. panamensis* group relies almost exclusively on examination of the male genitalia to confirm the presence of distinct hooks on the apex of the 8th sternite (Fig. 1). A few external clues can help, but none of these are unique to the group, uniform within the group, or very meaningful beyond their use in recognition. Most species have slightly larger than average body sizes for *Phelister.* Most have a depressed frons, and the frontal stria of the most common species, *P. panamensis*, is interrupted at the middle, often at the sides, or may be absent across the middle. In all the species both mandibles have a tooth at the base of the incisor edge, though these vary somewhat in size; the right one is typically a little smaller than the left. Most species lack a lateral submarginal pronotal stria. All have the outer subhumeral stria present in the posterior half or more, but never have any inner subhumeral stria. The hind tibiae of most species are somewhat distinctive, being rather flat, with a fairly sharp outer margin bearing few, mostly apical, spines. The mesepimeron of most species has unusually large, ocellate punctures.

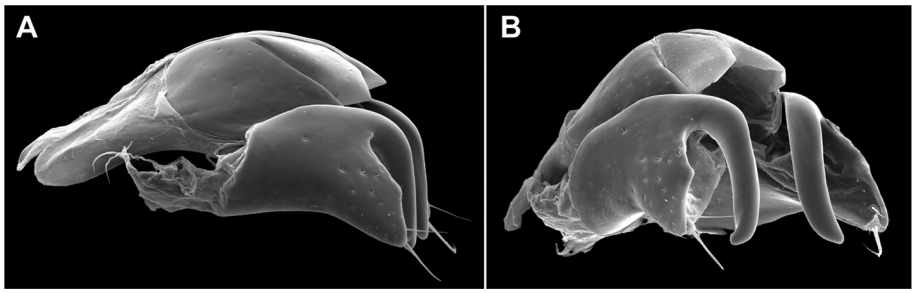

FIGURE 1. Unique male genitalic characters of the *Phelister panamensis* group **A** Lateral view of *Phelister panamensis* apically hooked 8th sternite (below) and 9th and 10th tergites (above); **B** Apicolateral view of *Phelister panamensis* 8th sternite.

Checklist of the species

1. *Phelister panamensis* J. E. LeConte 1859: 311
Phelister assimilis Wenzel & Dybas 1941: 467
Phelister atrolucens Casey 1916: 231
Phelister omissus Schmidt 1893: 85
Phelister panamae Marseul 1863: 707
2. *Phelister amplistrius* Schmidt 1893b: 84
3. *Phelister apurimac* sp. nov.
4. *Phelister brevistrius* Marseul 1854b: 485
5. *Phelister muscicapa* Marseul 1870: 79
Phelister arzei Marseul 1870: 80
6. *Phelister acoposternus* Marseul 1854
Phelister parvulus Erichson 1834: 156
7. *Phelister pumilus* Erichson 1834: 155
Phelister confuseanus Marseul 1870: 78
8. *Phelister foveisternus* sp. nov.

Key to species of the *P. panamensis* group

1 Fourth dorsal elytral stria complete to base and arched mediad to reach scutellar corner of elytron (Fig. 2A, H) 2
- Fourth dorsal elytral stria either incomplete, not reaching base or, if complete, then no basal arch present 3
2 Prosternal striae present; small fovea present at center of presternal stria (Fig. 11A) . . . . . *Phelister foveisternus*
- Prosternal striae absent; no fovea present along presternal stria . . . . . *Phelister acoposternus*
3 Arch of submarginal pronotal stria present just around anterior corners (Fig. 2D); prosternal striae widely separated, subparallel . . . . . *Phelister brevistrius*
- Submarginal pronotal striae absent 4
4 Frontal stria complete across frons . . . . . *Phelister muscicapa*
- Frontal stria absent or, if present, interrupted at middle 5
5 Frontal stria nearly complete, but variously interrupted at middle; 4th dorsal elytral stria abbreviated from base 6
- Frontal stria absent between eyes; 4th dorsal stria complete (Fig. 2A) . . . . . *Phelister panamensis*
6 Frontal stria narrowly interrupted at middle; body with sides subparallel 7
- Frontal stria more broadly interrupted; body more rounded laterally (Fig. 2G) . . . . . *Phelister pumilus*
7 Outer subhumeral stria reaching nearly to base; meso-metaventral stria transverse, crenulate, only displaced slightly anterad meso-metaventral suture; body broad, subquadrate (Fig. 3B) . . . . . *Phelister amplistrius*
- Outer subhumeral stria present in just over apical half; meso-metaventral stria finer, arched forward past mesoventral midpoint (Fig. 5C); body narrower, distinctly elongate (Fig. 2C) . . . . . *Phelister apurimac*

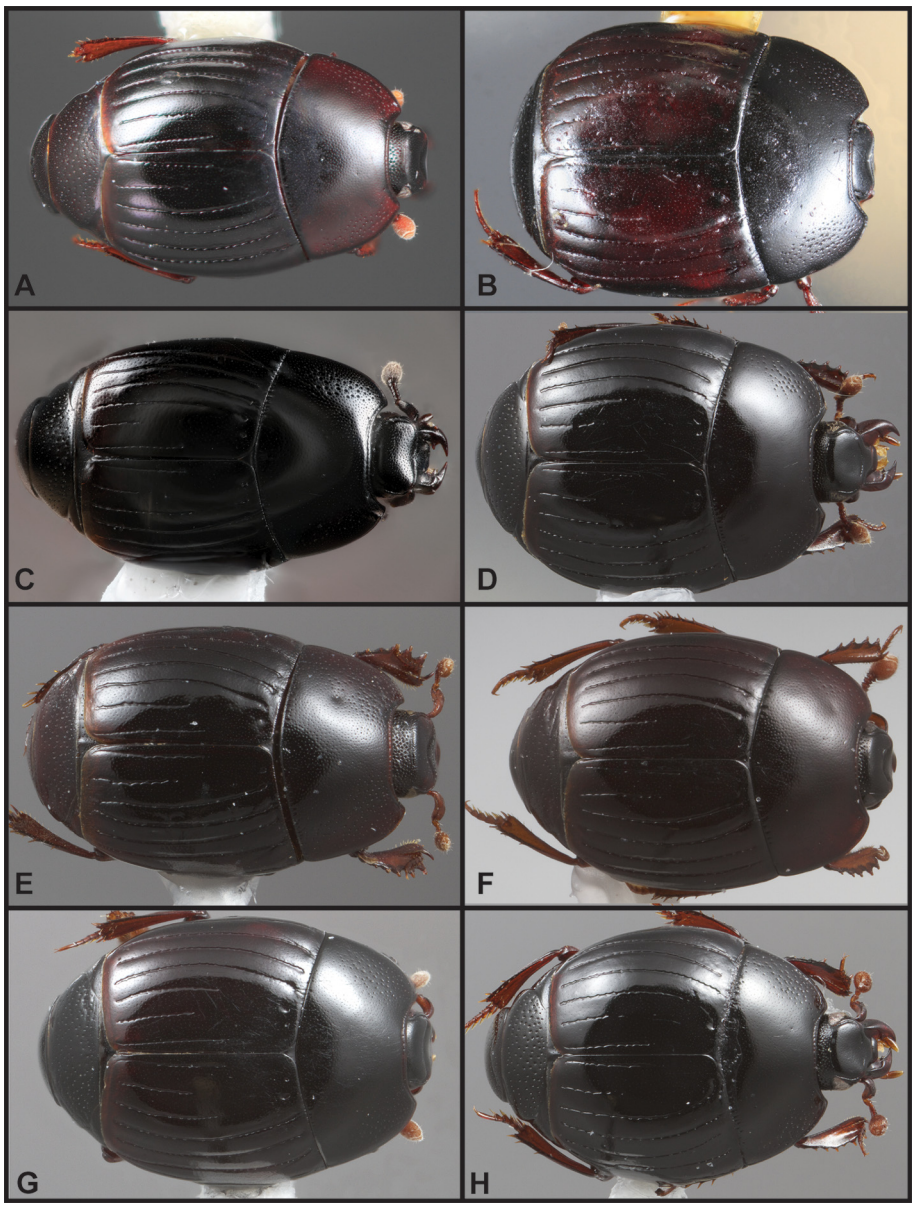

FIGURE 2. Dorsal habitus of the species of the *P. panamensis* group. **A.** *P. panamensis*; **B.** *P. amplistrius*; **C.** *P. apurimac*; **D.** *P. brevistrius*; **E.** *P. muscicapa*; **F.** *P. acoposternus*; **G.** *P. pumilus;* **H.** *P. foveisternus.*

Species treatments

1. *Phelister panamensis* J.E. LeConte 1859

Figs 1, 2A, 3, Map 1

Phelister panamensis J.E. LeConte 1859: 311
Phelister assimilis Wenzel & Dybas 1941: 467; Wenzel in Mazur, 1997: 28.
Phelister atrolucens Casey 1916: 231; Wenzel in Mazur, 1997: 28.
Phelister omissus Schmidt 1893: 85; Wenzel in Mazur, 1997: 28.
Phelister panamae Marseul 1862: 707, unjustified emendation.

Type material. The whereabouts of the type(s) of *P. panamensis* LeConte are currently unknown. LeConte evidently sent a specimen to Marseul (Wenzel & Dybas, 1941), which was later illustrated by Lewis (1888: plate V). It is possible that this was the type and that it was never returned to LeConte. Its current absence from LeConte's collection (MCZC) has been confirmed by C. Maier (pers. comm. 2023). In any case, the species' identity has been sufficiently established by these and subsequent authors that it is not in great doubt. So we do not feel it necessary or useful to designate a neotype. Lectotypes for the synonyms are hereby designated as follows: **Lectotype** *Phelister omissus* Schmidt (ZMHB): "Paraguay" / "Type" " / "Lectotype Phelister omissus Schmidt, 1893, M.S.Caterino & A.K.Tishechkin des. 2010"; two paralectotypes with the same data are also so labelled in ZMHB. **Lectotype** *Phelister atrolucens* Casey (USNM): "Brownsville, Texas, Wickham" / "TYPEUSNM 38451" / "atrolucens" / "Lectotype Phelister atrolucens Casey 1916, M.S.Caterino & A.K.Tishechkin des. 2010; five Paralectotypes with the same data are also so labelled in the USNM.

Diagnostic description. Length: 2.0–2.3 mm (avg. 2.1 mm); width: 1.7–2.1 mm (avg. 1.8 mm). Body elongate oval, castaneous to black; ground punctation fine but conspicuous, particularly on pronotum; frons weakly depressed at middle, frontal stria absent anteriorly, impressed only along inner margins of eyes; supraorbital stria present, detached at sides; antennal club elongate, with two weak annuli crowded into apical third, rest of surface tomentose; labrum rather narrow, shallowly emarginate anteriorly; both mandibles with small teeth at base of incisor edge, that

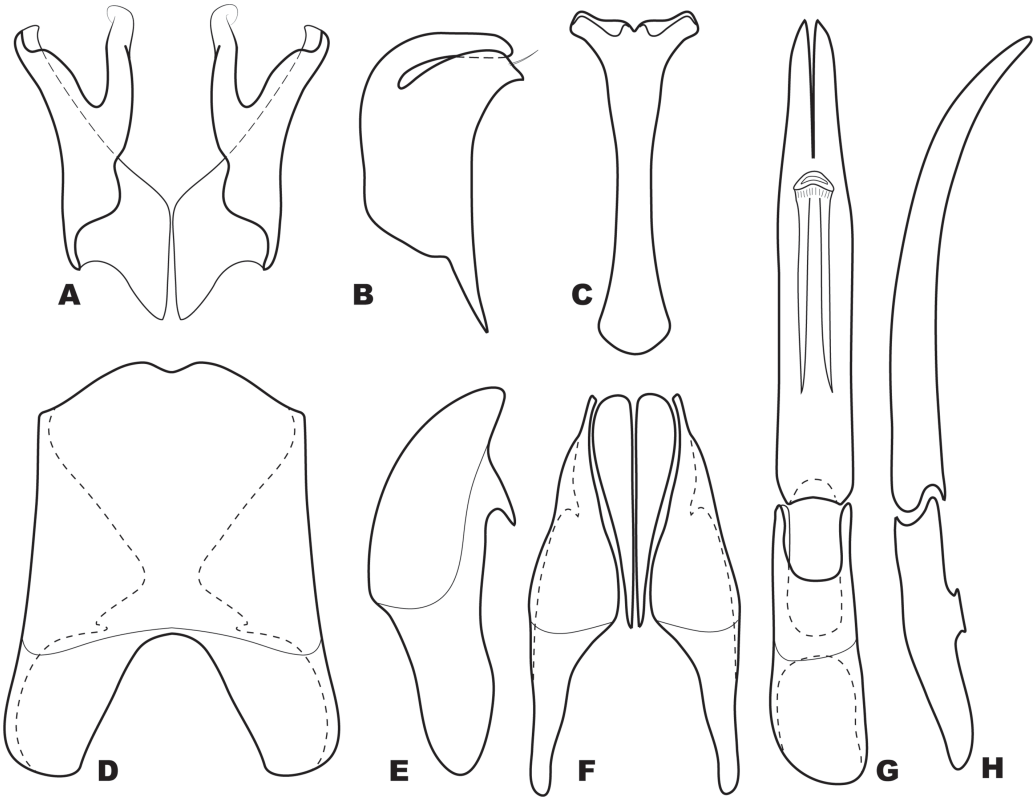

FIGURE 3. Male genitalia of *Phelister panamensis*. **A.** Tergite 8, dorsal view; **B.** Tergites 9 and 10, dorsal view; **C.** Tergite 9, lateral view; **D.** Sternite 8, dorsal view; **E.** Sternite 8, lateral view; **F.** Sternite 9 (spiculum gastrale), dorsal view; **G.** Aedeagus, dorsal view; **H.** Aedeagus, lateral view.

of right mandible arising more abruptly, that of left more gradual. Pronotum with sides roundly narrowed to anterior emargination; anterior pronotal gland openings both close to anterior margin, just behind anterior marginal stria; basal margin punctate, with series of small crenulations, prescutellar impression shallow, narrow; submarginal striae absent; pronotal disk with larger secondary punctures sparsely intermingled with ground punctation towards sides; prosternal keel weakly emarginate at base, keel striae complete, divergent posteriorly and anteriorly, finely punctate between; presternal suture weak; prosternal lobe rather short, with marginal stria weakened towards sides. Elytron with single, rather deeply impressed epipleural stria; outer subhumeral stria present in posterior two-thirds; inner subhumeral stria absent; dorsal striae 1–4 complete, 4th rarely arched inward toward suture, 5th present in posterior half and represented by basal puncture; sutural stria in posterior two-thirds; mesoventrite weakly produced in front, with complete marginal stria continued at side by postmesocoxal stria; mesometaventral stria displaced forward onto basal fourth of mesoventrite, continued by inner metaventral stria posterolaterad to inner corner of coxa; recurrent stria absent from metaventrite; metaventral disk with cluster of larger secondary punctures anteromediad hind coxa. Protibial margin weakly rounded, bearing 5 small spines, weakly emarginate between; outer protibial spur about two-thirds length of basal protarsomere, inner spur inconspicuous; paired tarsal claws simple; male protarsal setae unmodified; mesotibia with 4–5 long spines crowded into apical half; metatibia with one small spine just beyond midpoint of outer margin and 2–3 longer spines around apical corner. Propygidium rather long, about equal in midline length to pygidium, punctures of disk evenly, sparsely distributed; punctures of pygidium slightly smaller, similar in density, diminishing toward apex. Male: 8th tergite long, parallel sided, with deep basal emargination, basal membrane attachment line just distal to it; 8th sternite with strong, sclerotized hook at inner corner of apical margin, outer corners divergent, setose at their corners; 9th tergites simply attenuated toward apices; 9th sternite with small apical notch and reflexed plates on either side; 10th tergite long, medially divided; basal piece of aedeagus over half as long as tegmen, with deep apicoventral emargination; tegmen evenly curved in lateral view, in dorsal view parallel-sided in basal half, gently tapered to apex, apices weakly rounded to subacute; median lobe simple, with long basal apodemes.

MAP 1. Distribution records of *Phelister panamensis*.

Distribution. This species is common and widespread across the neotropics and just into temperate areas of North and South America (Map 1). All specific records seen by us are reported in Appendix 1. Records from Cuba were taken mostly from Megna *et al.* (2021). The species has also been reported from Paraná, Brazil (Leivas *et al.*, 2013); most of those records, however, appear to represent *P. foveisternus* sp. nov., described below.

Remarks. In various parts of its range *P. panamensis* is similar to and sympatric with a number of other *Phelister* species. In Central America, it is externally very similar to *P. affinis* LeConte, and even moreso to *P. miramon* Marseul. The former has the frontal stria more narrowly interrupted at the middle than *P. panamensis*, and also interrupted at the sides (unlike *P. panamensis*), and it frequently has fragments of the submarginal pronotal stria around the anterior corners. Distinguishing *P. miramon* is more difficult, but the latter is typically smaller in body size, with flatter pronotal edges having the secondary pronotal punctures slightly removed from the sides. Within the *panamensis* group, *P. acoposternus* lacks prosternal striae and has the 4th elytral stria arched toward the sutural stria at the base.

While nearly all records with any ecological data indicate some type of dung (horse, cow), there are also several records from decaying vegetation, including rotting cactus and rotting fruit, and a couple that indicate at least a loose association with ants ("*Atta* refuse", "from trail with snapping ants"). The species has previously been investigated as a potentially useful biological control agent of horn fly (*Haematobia irritans* L.; Summerlin *et al.* 1991).

2. *Phelister amplistrius* Schmidt 1893

Figs 2B, 4, Map 2

Phelister amplistrius Schmidt 1893b: 84.

Type material. Lectotype of unknown sex hereby designated (ZHMB): "Boliv." / "Type" / "coll. J.Schmidt" / "amplistrius Schm." / "Lectotype Phelister amplistrius Schmidt, 1893, M.S.Caterino & A.K.Tishechkin des. 2010"; two paralectotypes with same data in BMNH.

Diagnostic description. Length: 2.2–2.4 mm (avg. 2.3 mm); width: 1.9–2.1 mm (avg. 2.0 mm). Body broadly rounded, black, elytra and legs faintly reddish; ground punctation fine but conspicuous; frons depressed at middle, central portion of frontal stria fine, narrowly interrupted at middle, connected at sides; supraorbital stria present, detached at sides; labrum wide, weakly emarginate; mandibles both toothed at base. Sides of pronotum broad, disk with row of crenulate basal punctures and with secondary punctures intermingled at sides with ground punctation; submarginal pronotal striae absent; prosternal keel very weakly emarginate basally, keel striae widely divergent at base, convergent to middle, subparallel anteriorly, connected at front; prosternal lobe short, with complete marginal stria. Elytral epipleuron with single, deeply impressed stria; outer subhumeral stria long, present in posterior three-fourths; inner subhumeral stria absent; dorsal striae 1–3 complete, 4th stria present in posterior two-thirds and as basal puncture; 5th stria present in posterior half with anterior puncture; sutural stria present in posterior two-thirds; ground punctation of elytra denser toward apex. Mesoventrite weakly projecting, with complete marginal stria; mesometaventral stria crenulate, more or less transverse and slightly anterior to mesometaventral suture; recurrent metaventral stria absent; protibia rather narrow, with moderately distinct marginal teeth; meso- and metatibiae narrow, with fine but rather long marginal spines. Propygidium about two-thirds length of pygidium, with secondary punctures sparse and decreasing in density posterad; pygidium with fine secondary punctures mainly in basal corners. Male with hooks of 8th sternite rather short; 9th sternite with narrow apical notch, basal stem quite widened; basal piece of aedeagus more than half as long as tegmen, apicoventral emargination with small median tooth; tegmen narrowed from basal third to narrowly rounded and ventrally curved apex.

Distribution. This species is only definitely known from the type locality, which is no more specific than 'Bolivia'. A specimen from 'Cochabamba', Bolivia differs slightly, but is inadequately represented to interpret meaningfully.

Remarks. This species is best recognized by its nearly complete outer subhumeral stria and its broadly subquadrate body form.

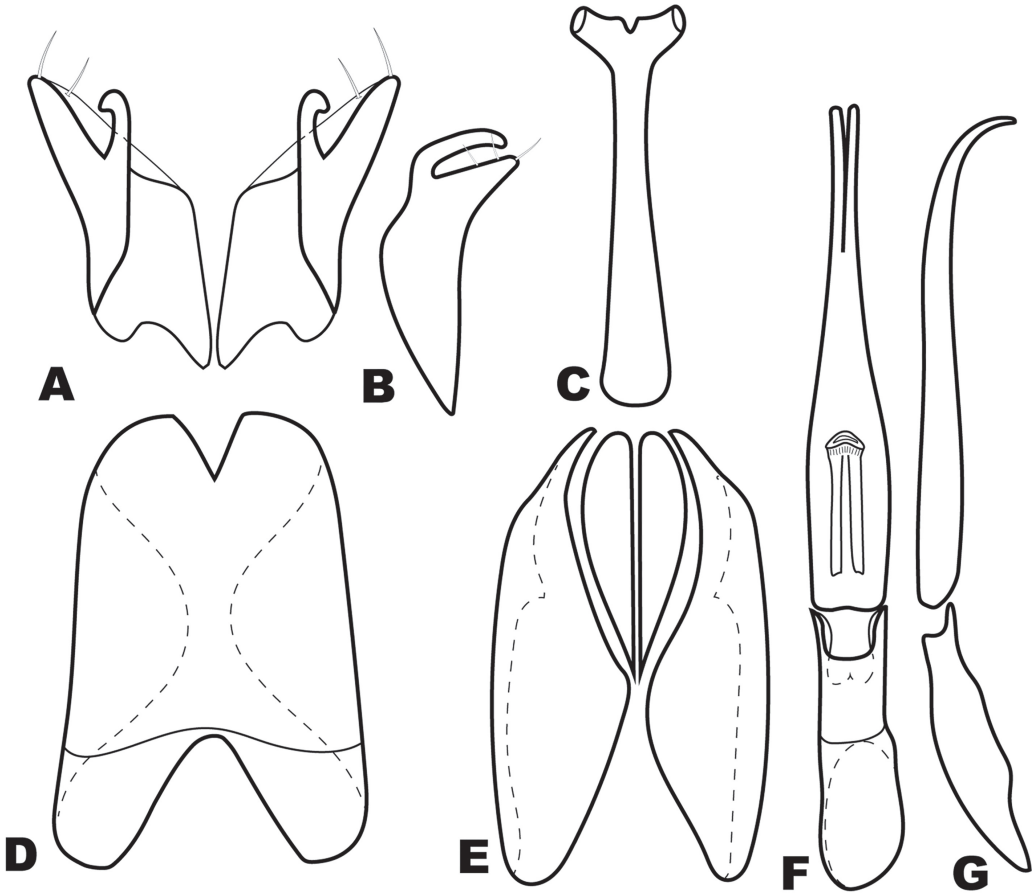

FIGURE 4. Male genitalia of *Phelister amplistrius*. **A.** Sternite 8, dorsal view; **B.** Sternite 8, lateral view; **C.** Sternite 9 (spiculum gastrale), dorsal view; **D.** Tergite 8, dorsal view; **E.** Tergites 9 and 10, dorsal view; **F.** Aedeagus, dorsal view; **G.** Aedeagus, lateral view.

3. *Phelister apurimac* sp. nov.

Figs 2C, 5, 6, Map 2

Type material. Holotype male: "35 mi. E. of Abancay [approx -13.5,-72.7], PERU, III-5-1951" / "Ross and Michelbacher Collectors" / "EXO-03647"; deposited in CASC.

Other material (see remarks, below). Peru: Apurimac, Curahuasi, Cerro San Cristobal [-13.5,-72.7], 2585m, excremento vacuno, V.M. Diéguez (Dieguez colln.)

Diagnostic description. Length: 1.8–2.3 mm (avg. 2.1 mm); width: 1.6–2.0 mm (avg. 1.8 mm). Body elongate oval, black; ground punctation fine but conspicuous; frons weakly depressed at middle, central portion of frontal stria fine, narrowly interrupted at middle with the inner ends recurved slightly dorsad, connected at sides; supraorbital stria present, detached at sides; labrum wide, weakly emarginate; mandibles both toothed; pronotum with sides weakly convergent in posterior ¾, then more strongly to anterior corners, anterior emargination deep; pronotal disk with row of basal crenulate punctures along outer 2/3; longitudinal band of about 20 secondary punctures intermingled along sides of disk with ground punctation; submarginal pronotal striae absent. Prosternal keel very weakly emarginate basally, keel striae not too widely divergent at base, convergent to middle, subparallel anteriorly, connected; prosternal lobe about 2/3 length of keel, with complete marginal stria. Elytron with single, deeply impressed epipleural stria; outer subhumeral stria rather long, present in posterior 2/3; inner subhumeral stria absent; dorsal striae 1–3 complete, 4th stria present in posterior 3/4 and as basal puncture; 5th stria present in posterior ¼ with anterior puncture; sutural stria present in posterior two-thirds; ground punctures of elytra denser toward apex. Mesoventrite weakly projecting, with fine, complete marginal stria; mesometaventral stria arched forward nearly to marginal mesoventral stria; lateral portion of metaventral stria reaching nearly to inner corner of metacoxa,

recurrent metaventral stria absent. Protibia rather strongly dentate; mesotibia widened to apex, with 4–5 marginal spines; metatibia narrower, with just three, closely set spines at distal outer corner. Propygidium about 2/3 length of pygidium, with secondary punctures sparse and decreasing in density posterad; pygidium with fine secondary punctures mainly in basal corners. Male with hooks of 8th sternite strongly, almost perpendicularly bent downward, apices strongly and acutely hooked; 9th sternite with narrow apical notch, basal stem wide; basal piece of aedeagus narrow, more than half as long as tegmen, expanded to base; tegmen parallel-sided in basal third, then narrowed, thin over apical half, strongly ventrally curved at apex.

Distribution. This species is only known from the (imprecise) type locality, somewhere along the Abancay-Cusco highway near the Apurímac River, south-central Peru.

Remarks. This species is similar to *P. amplistrius* in many characters, although differing considerably in body shape, being much narrower, and most significantly from any other species in this group, in the distinctly hooked apices of the distal processes of the male 8th sternite (Fig. 6A–B).

A female specimen tentatively associated with this species was collected in cow dung.

MAP 2. Distribution records of *Phelister amplistrius, P. apurimac, P. brevistrius,* and *P. muscicapa*.

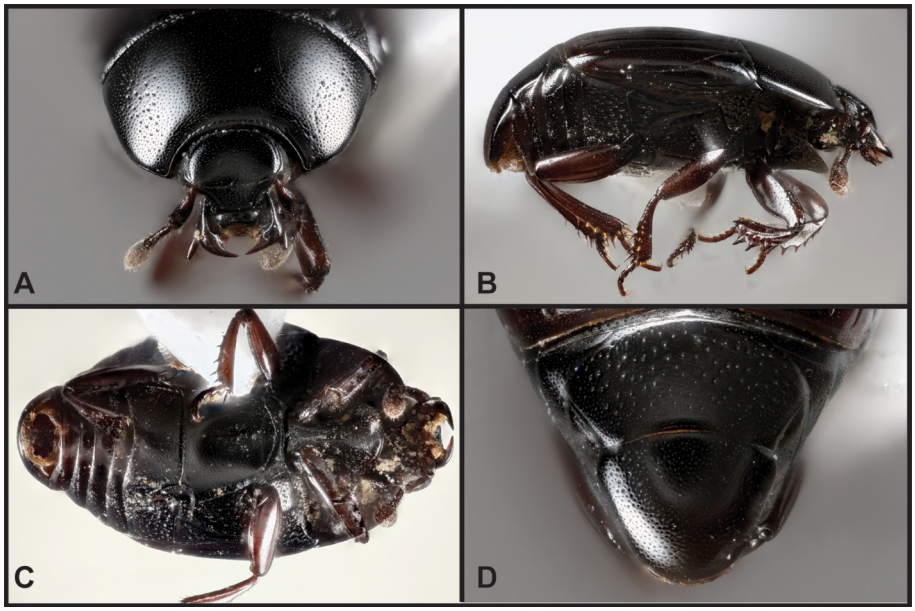

FIGURE 5. Photos of *Phelister apurimac* **sp. nov. A.** Head and pronotum, anterior view; **B.** Habitus, lateral view; **C.** Habitus, ventral view; **D.** Propygidium and pygidium, posterodorsal view.

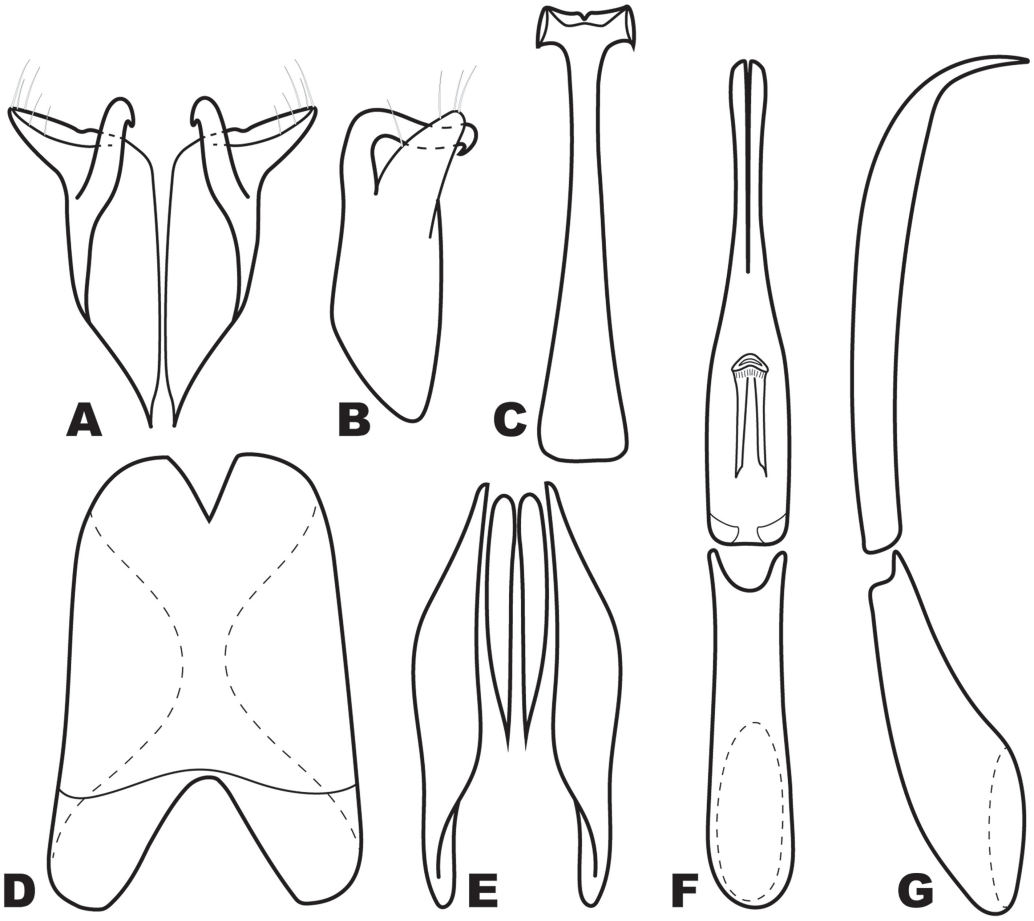

FIGURE 6. Male genitalia of *Phelister apurimac* **sp. nov. A.** Sternite 8, dorsal view; **B.** Sternite 8, lateral view; **C.** Sternite 9 (spiculum gastrale), dorsal view; **D.** Tergite 8, dorsal view; **E.** Tergites 9 and 10, dorsal view; **F.** Aedeagus, dorsal view; **G.** Aedeagus, lateral view.

4. *Phelister brevistrius* Marseul 1853

Figs 2D, 7, Map 2

Phelister brevistrius Marseul 1853: 485.

Type material. Lectotype of undetermined sex hereby designated (MNHN): "Phelister brevistrius M. Bresil" / "MUSEUM PARIS, COLL. DE MARSEUL 2842-90" / "Lectotype Phelister brevistrius Marseul, 1853, M.S. Caterino & A.K. Tishechkin des. 2010"; there is additional possible type material in BMNH and NHRS, but the status of these specimens is sufficiently unclear that we do not designate paralectotypes from among them.

Diagnostic description. Length: 2.1–2.4 mm (avg. 2.2 mm); width: 2.1–2.4 mm (avg. 2.2 mm). Body broadly elongate oval, castaneous to black; ground punctation fine but conspicuous; frons weakly depressed at middle, fragments of frontal stria present on each side, detached from striae along inner margins of eyes; supraorbital stria present, detached at sides; left mandible with gradual tooth at incisor base, right mandible with small abrupt tooth at incisor base. Pronotum with submarginal striae present at anterior corners, not connected to anterior marginal, absent from most of lateral margin; pronotal disk with very sparse secondary punctures anterolaterally; prosternal keel with complete, widely separated striae, weakly convergent (females) to subparallel, rather densely punctate between, with fine short setae sometimes evident, these punctures continuing onto the prosternal lobe. Elytron with outer subhumeral stria present in posterior 1/2; inner subhumeral stria absent; dorsal striae 1–3 complete, 4th present in posterior 1/3, typically with short detached anterior arch between 4th and sutural striae, 5th present in posterior 1/4; sutural stria in posterior 2/3; metaventrite with recurrent stria present, at least as an arc of large lateral metaventral punctures; central portion of metaventral disk lacking cluster of larger secondary punctures in posterior

corners. Propygidium about 2/3 as long as pygidium along midline, punctures of disk rather dense in basal half, but irregularly sparser apically; punctures of pygidium mostly concentrated in anterolateral corners. Male: hooks of 8th sternite shorter than those of *P. panamensis*; apicoventral emargination of basal piece deep, with small median tooth; tegmen strongly narrowed in apical 1/3, strongly ventrally curved at apex.

Distribution. *Phelister brevistrius* is rather widespread in central South America, known from near the mouth of the Amazon in northern Brazil south to Paraguay, with most records concentrated along Brazil's southeastern coast.

Remarks. This species can be distinguished by the short arc of submarginal pronotal stria present only in the anterior corners, a frontal stria that is disconnected at the sides and often also interrupted at the middle, the short outer subhumeral stria, and the broad prosternum with dense punctures between the striae.

Most of the records of this species come from flight interception trapped specimens. A few were collected in 'dung pitfalls', one specifically noting human dung as bait. A couple were found in rotting cactus and rotting banana.

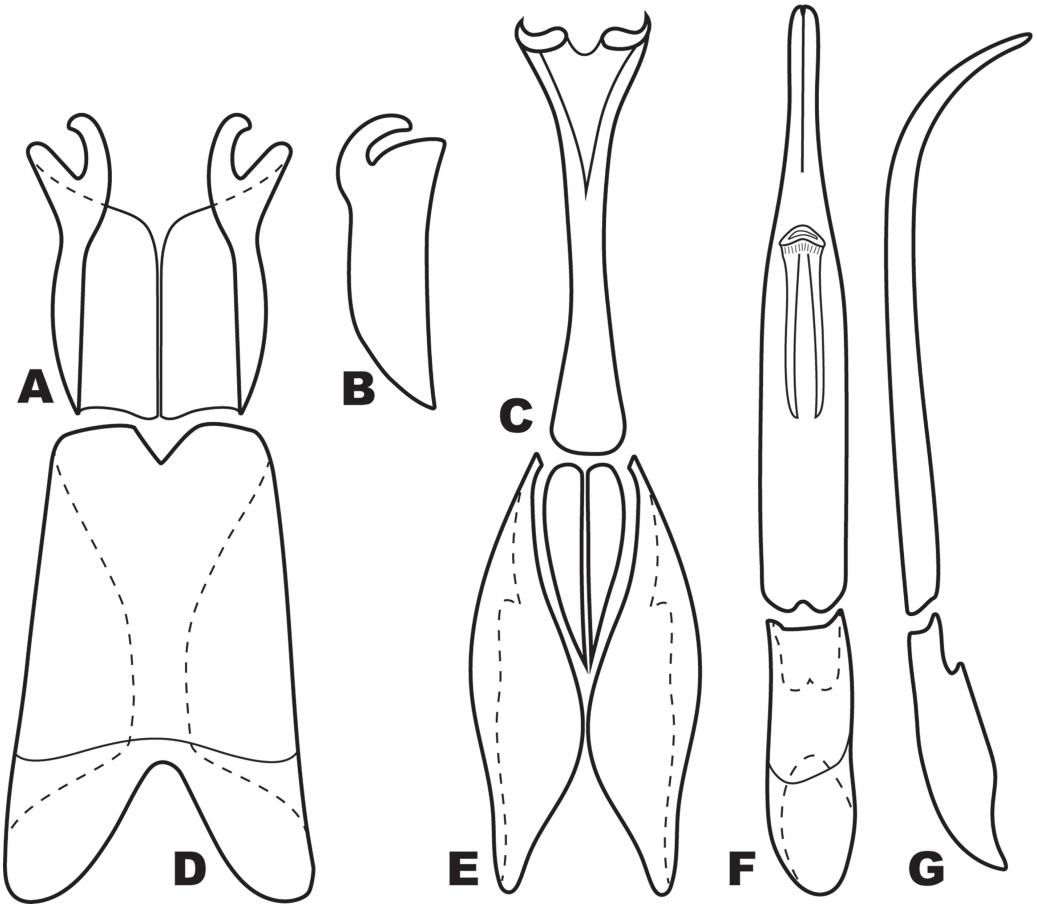

FIGURE 7. Male genitalia of *Phelister brevistrius*. **A.** Sternite 8, dorsal view; **B.** Sternite 8, lateral view; **C.** Sternite 9 (spiculum gastrale), dorsal view; **D.** Tergite 8, dorsal view; **E.** Tergites 9 and 10, dorsal view; **F.** Aedeagus, dorsal view; **G.** Aedeagus, lateral view.

5. *Phelister muscicapa* Marseul 1870

Figs 2E, 8, Map 2

Phelister muscicapa Marseul 1870: 79.
Phelister arzei Marseul 1870: 80; Bickhardt, 1917: 218.

Type material. Lectotype of undetermined sex hereby designated (MNHN): "Phelister muscicapa, aericola M., [?Bayou?], [?69]" / "MUSEUM PARIS, COLL. DE MARSEUL 2842-90" / "Type" / "Lectotype Phelister muscicapa Marseul, 1870, M.S. Caterino & A.K. Tishechkin des. 2010".

Diagnostic description. Length: 2.2–2.5 mm (avg. 2.3 mm); width: 1.8–2.1 mm (avg. 1.9 mm). Body elongate oval, castaneous to black; ground punctation fine but conspicuous; frons broad, weakly depressed at middle, frontal stria complete, meeting striae along inner margins of eyes; supraorbital stria present, detached at sides; labrum wide, distinctly emarginate anteriorly; both mandibles with prominent tooth at base of incisor edge. Pronotum with submarginal striae absent, disk with elongate secondary punctures densely intermingled with ground punctation on lateral 1/3; prosternal keel narrow, trunctate, emarginate at base; prosternal keel striae complete, very close, subparallel, only weakly divergent at base; prosternal lobe long, strongly deflexed, its marginal stria interrupted at middle. Elytron with outer subhumeral stria present in posterior half; inner subhumeral stria absent; dorsal striae 1–4 complete, deeply impressed, 5th stria present in posterior half and represented by basal puncture; sutural stria in posterior 2/3; mesoventrite only very weakly produced at front, with complete marginal stria continued at side by postmesocoxal stria; mesometaventral stria narrowly arcuate forward to midline of mesoventrite, continued by inner metaventral stria posterolaterad to middle of metacoxa; recurrent stria absent; metaventral disk lacking secondary punctures. Protibial margin moderately strongly dentate, marginal spines decreasing in size from apex to base; mesotibia with 3–4 long spines along margin, those of metatibia sparser and finer. Propygidium rather about equal in midline length to pygidium, punctures of disk somewhat irregularly, sparsely distributed, denser near basal margin; pygidium fairly short, with secondary punctures very small and sparse. Male: 8th tergite broad, sides more rounded; 8th sternite with distinct but small sclerotized hooks at inner corner of apical margin, setae of outer corners very conspicuous; 9th sternite deeply emarginate at apex; basal piece of aedeagus short, about 1/3 as long as tegmen; tegmen flat, rather short, parallel-sided in basal 2/3, rounded to apex.

Distribution. This species is only known from a small area in southeastern Brazil and Uruguay.

Remarks. This is a distinctive species in the group, recognized by its broad, complete, medially sinuate frontal stria along with the complete prosternal keel striae which are close and parallel in the anterior half. In addition, the protibia are a bit more strongly toothed than in most of the other species of the group.

Most specimens of this species have been collected in association with *Acromyrmex* Mayr fungus-growing ants (Formicidae: Attini).

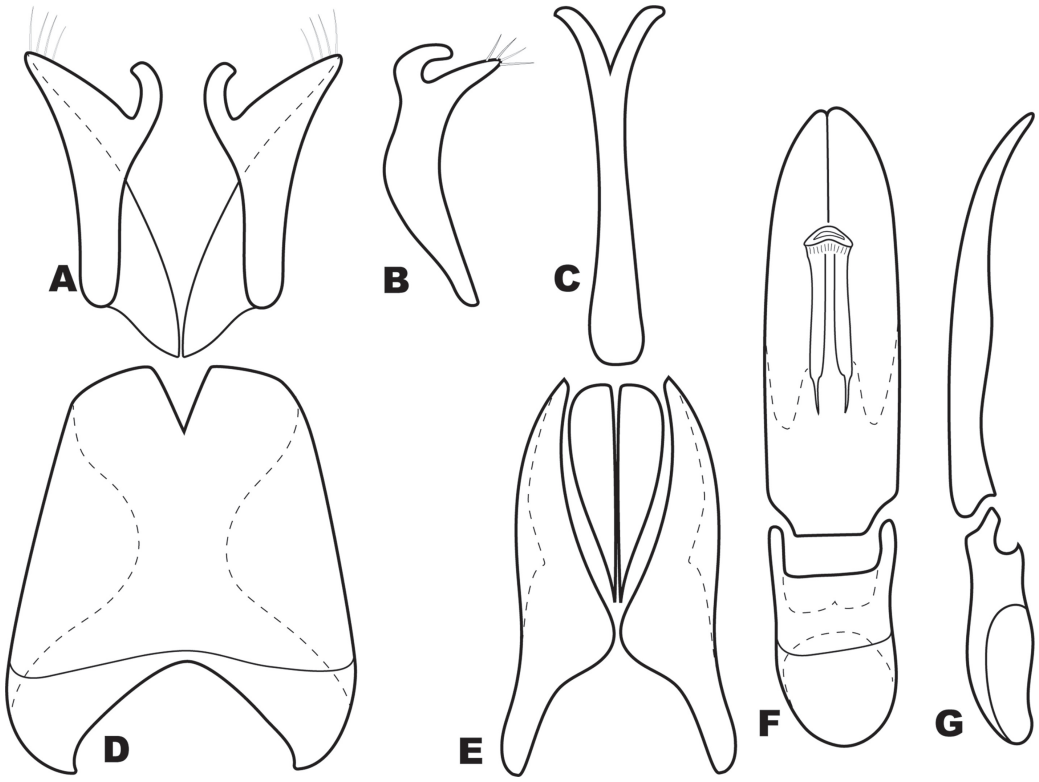

FIGURE 8. Male genitalia of *Phelister muscicapa*. **A.** Sternite 8, dorsal view; **B.** Sternite 8, lateral view; **C.** Sternite 9 (spiculum gastrale), dorsal view; **D.** Tergite 8, dorsal view; **E.** Tergites 9 and 10, dorsal view; **F.** Aedeagus, dorsal view; **G.** Aedeagus, lateral view.

6. *Phelister acoposternus* Marseul, 1853

Figs 2F, 9, Map 3

Phelister acoposternus Marseul, 1853: 475
Phelister parvulus (Erichson, 1834: 156).
Hister parvulus Erichson, 1834: 156 (not Rossi, 1792); junior homonym (Johnson *et al.*, 1991).

Type material. Lectotype of undetermined sex hereby designated (MNHN): *Phelister acoposternus* Marseul: "Phelister acoposternus M. Cartag., [???] 63" / "Museum Paris, Coll. de Marseul 2842-90" / "Lectotype Phelister acoposternus Marseul, 1853, M.S. Caterino & A.K. Tishechkin des. 2010"; Type locality: "Carthagène (Nouvelle-Grenade)" [Colombia] (Marseul, 1853). **Lectotype of undetermined sex** (ZMHB): *Phelister parvulus* Erichson "parvulus Er., Columb. [???]" / "48975" / "Type Hister parvulus Er. RLW '73" / "Lectotype Phelister parvulus Erichson, 1834, M.S.Caterino & A.K.Tishechkin des. 2010".

Diagnostic description. Length: 1.8–2.1 mm (avg. 1.9 mm); width: 1.6–1.9 mm (avg. 1.7 mm). Body broadly elongate oval, castaneous to black; ground punctation fine but conspicuous; frons weakly depressed at middle, frontal stria absent anteriorly, impressed only along inner margins of eyes; supraorbital stria present, detached at sides; left mandible with gradual tooth at incisor base, right mandible with small abrupt tooth at incisor base. Pronotum with submarginal striae absent, disk with larger secondary punctures sparsely intermingled with ground punctation near sides; prosternal keel weakly emarginate at base, keel striae absent, keel impunctate; prosternal lobe with marginal striae largely obsolete, faintly detectable at sides. Elytron with single, rather deeply impressed epipleural stria; outer subhumeral stria present in posterior two-thirds; inner subhumeral stria absent; dorsal striae 1–4 complete, 4th arched to sutural at base, 5th present in posterior 2/3, sutural stria present in posterior 3/4; mesoventrite weakly produced at front, with complete marginal stria continued at side by postmesocoxal stria; mesometaventral stria weakly displaced forward onto mesoventrite, continued by inner metaventral stria posterolaterad to inner corner of coxa; recurrent stria absent; metaventral disk with few larger secondary punctures anteromediad hind coxa. Protibial margin weakly rounded, bearing 5 small spines, weakly emarginate between; mesotibia with 3–4 long spines crowded into apical third; metatibial margin fine, with one small spine near apex, and one long spine at apical corner. Propygidium about two-thirds length of pygidium along midline, secondary punctures of disk sparse, mostly evident in basal half; punctures of pygidium smaller, concentrated in anterolateral corners. Male: basal piece of

MAP 3. Distribution records of *Phelister acoposternus, P. pumilus,* and *P. foveisternus*.

aedeagus nearly as long as tegmen, with deep apicoventral emargination; tegmen weakly curved ventrad in apical fourth, in dorsal view unevenly tapered, narrowly rounded at apex.

Distribution. Most records of this species are from northern and central Amazonia, from Colombia, Venezuela, and Brazil. But the species appears to be much more widespread. A couple of specimens have been seen from the western coastal lowlands of Ecuador. There are also a few records from more southern parts of South America, including Mato Grosso, Brazil and eastern Bolivia. One specimen has even been seen from Veracruz, Mexico.

Remarks. This species is very similar to its probable sister species, *P. panamensis*. Both lack a frontal stria (usually), and have an outer subhumeral stria that is well impressed and present in about the posterior 2/3 of the elytron. However, *P. acoposternus* is slightly smaller, lacks prosternal striae, and the 4th dorsal elytral stria is typically bent mediad toward or fully to the base of the sutural stria. The metaventrite, metepisternum, and pygidium of *P. panamensis* are generally more coarsely punctate than those of *P. acoposternus.*

P. acoposternus specimens have been collected in association with carrion and dung, but most have been collected through the use of flight interception traps.

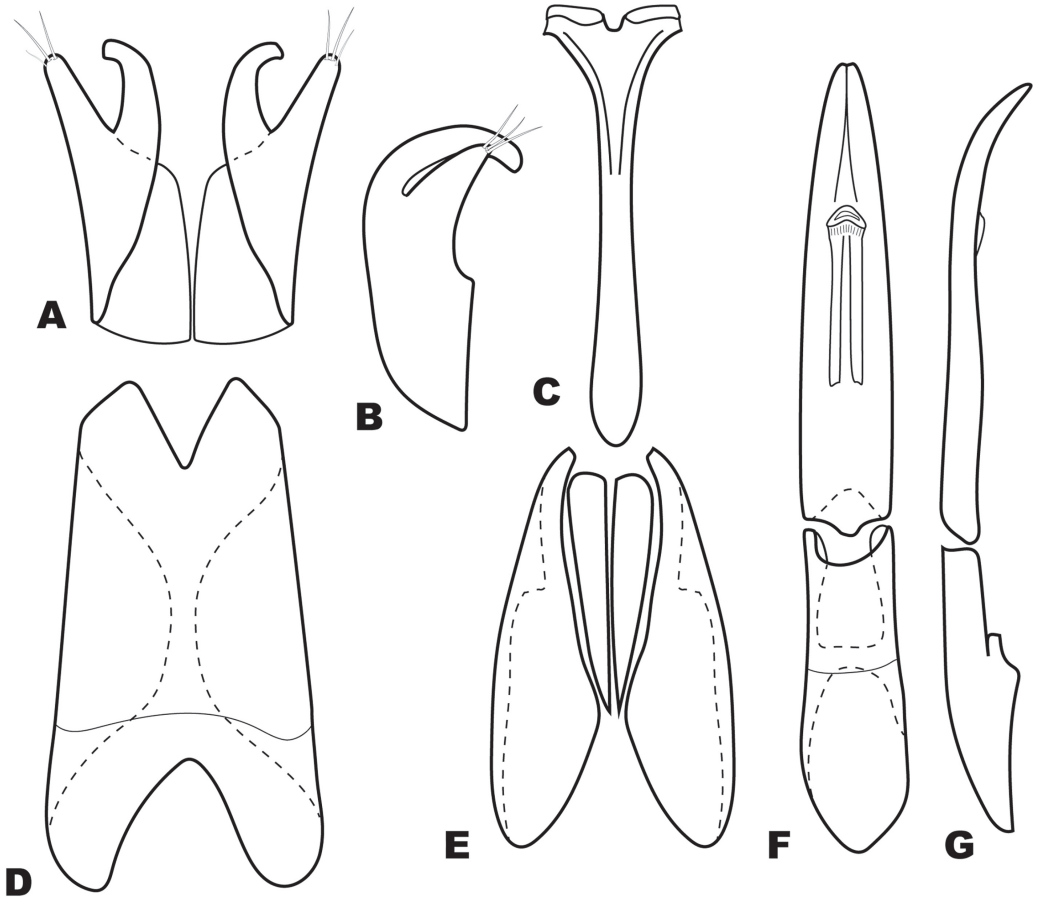

FIGURE 9. Male genitalia of *Phelister acoposternus*. **A.** Sternite 8, dorsal view; **B.** Sternite 8, lateral view; **C.** Sternite 9 (spiculum gastrale), dorsal view; **D.** Tergite 8, dorsal view; **E.** Tergites 9 and 10, dorsal view; **F.** Aedeagus, dorsal view; **G.** Aedeagus, lateral view.

7. *Phelister pumilus* (Erichson 1834)

Figs 2G, 10, Map 3

Hister pumilus Erichson 1834: 155.
Phelister pumilus (Erichson); Gemminger & Harold 1868: 761.
Phelister confuseanus Marseul 1870: 78; Bickhardt 1917: 219.

Type material. Lectotype of undetermined sex hereby designated (ZMHB): "48974" / "pumilus Er." / "Lectotype Hister pumilus Erichson, 1834, M.S.Caterino & A.K.Tishechkin des. 2010"; three paralectotypes also in ZHMB.

Lectotype *Phelister confuseanus* Marseul (MNHN): "Phelister confuseanum [illegible]" / "MUSEUM PARIS, COLL. DE MARSEUL 1842-90" / "Type" / "Lectotype Phelister confuseanus Marseul, 1870, M.S. Caterino & A.K. Tishechkin des. 2010".

Diagnostic description. Length: 1.9–2.4 mm (avg. 2.1 mm); width: 1.6–2.0 mm (avg. 1.8 mm). Body broadly elongate oval, castaneous to black; ground punctation fine; frons weakly depressed at middle; median portion of frontal stria represented by only fine fragments on either side, well impressed only along inner margins of eyes; supraorbital stria present, detached at sides; left mandible with prominent tooth at incisor base, right mandible with small abrupt tooth at incisor base. Pronotum lacking submarginal stria, disk with secondary punctures restricted to narrow bands along sides; prosternal keel weakly emarginate at base, keel striae complete, convergent to front and connected anteriorly, finely punctate between; marginal stria of prosternal lobe obsolete at middle. Elytron with single, rather deeply impressed epipleural stria; outer subhumeral stria present in posterior 2/3; inner subhumeral stria absent; dorsal striae 1–3 rather fine, complete; 4th stria present in posterior 3/4; 5th stria present in posterior half, 4th and 5th striae both represented by short anterior fragments; sutural stria present in posterior 2/3; mesoventrite weakly produced at front, with complete marginal stria continued at side by postmesocoxal stria; mesometaventral stria displaced forward onto basal fourth of mesoventrite, continued by inner metaventral stria posterolaterad to middle of hind coxa; recurrent stria absent; metaventral disk with few or no secondary punctures anteromediad hind coxa. Protibial margin with ~5 weakly developed spinose teeth; mesotibia with 4–5 long spines crowded into apical half; metatibia with one small spine just beyond midpoint of outer margin and 2–3 longer spines around apical corner. Propygidium about 2/3 length of pygidium along midline, punctures of disk sparse, less dense in apical half; secondary punctures of pygidium mostly concentrated in basal corners. Male: basal piece of aedeagus about half as long as tegmen, with deep apicoventral emargination; tegmen curved ventrad at apex, in dorsal view parallel-sided in basal third, tapered to apex, apices narrowly rounded to subacute; median lobe simple, with thick basal apodemes.

Distribution. This species is known from southern Brazil, Uruguay, and northern Argentina.

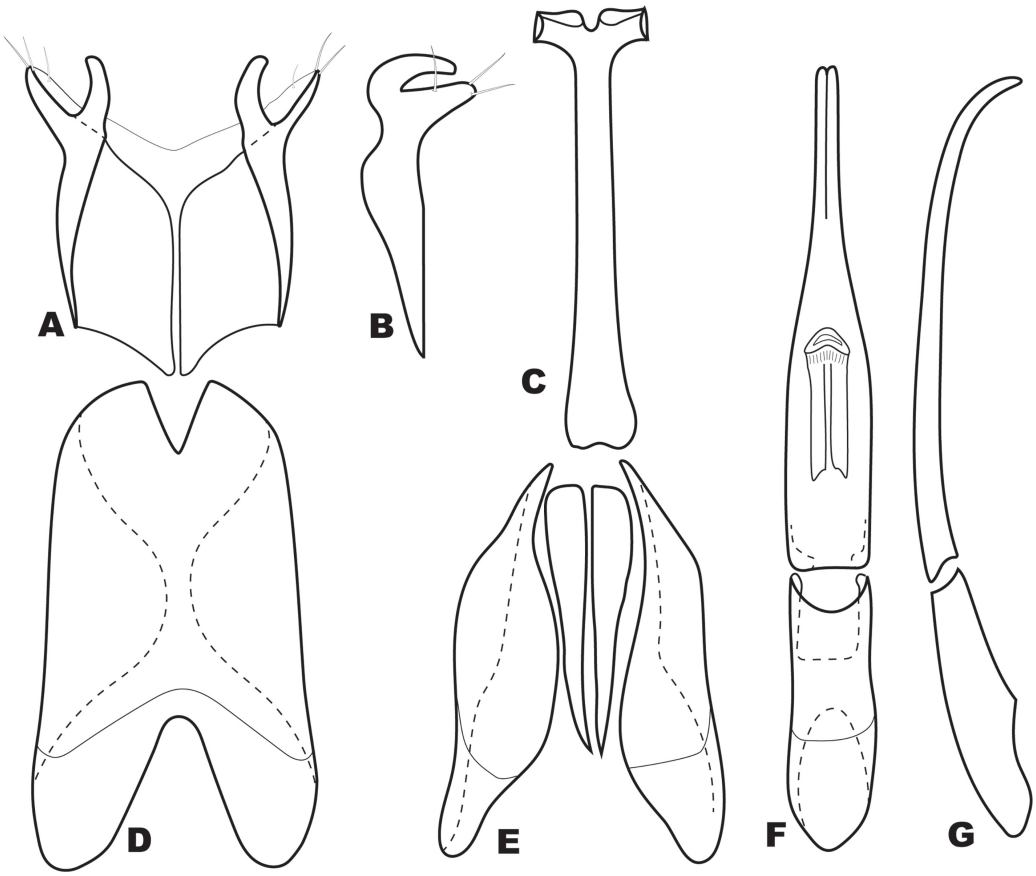

FIGURE 10. Male genitalia of *Phelister pumilus*. **A.** Sternite 8, dorsal view; **B.** Sternite 8, lateral view; **C.** Sternite 9 (spiculum gastrale), dorsal view; **D.** Tergite 8, dorsal view; **E.** Tergites 9 and 10, dorsal view; **F.** Aedeagus, dorsal view; **G.** Aedeagus, lateral view.

Remarks. The body of *Phelister pumilus* is slightly rounder than most others in this group. It also has the frontal stria present but interrupted at the middle (and sometimes also at the sides). It is most similar to *P. amplistrius*, differing from it also in having the aedeagus more gradually arched toward the apex rather than abruptly hooked.

Few records of this species have any accompanying ecological data. But we have seen one specimen each from cow dung and from unspecified carrion. Aguilar *et al.* (2020) report the species from most parts of Uruguay, and always from carrion traps (vs. dung and cut wood in their sampling).

8. *Phelister foveisternus* sp. nov.

Figs 2H, 11, 12, Map 3

Type material. Holotype male: "P. GROSSA, PR, Brasil, (V. Vilha–IAPAR), Ganho & Marinoni, 01-XI-1999, SOLO5" [Brazil: Paraná, Vilha Velha State Park (-25.22°S, -50.04°W), nr. Ponta Grossa] / "DZUP 272552" / "*Phelister* Marseul, 1853, Det. F. W. T. Leivas" / "Caterino/Tishechkin Exosternini Voucher EXO-00598" / "Holotype *Phelister foveisternus* Caterino & Tishechkin"; deposited in DZUP. **Paratypes** (34, all same locality as holotype) • 13, same data as holotype • 10, 25.X.1999 • 9, 18.X.1999 • 1, 08.XI.1999 • 1, 6.XII.1999; deposited in DZUP, FMNH, MSCC, AKTC.

Other material. 1: Brazil, Paraná, Curitiba, nr. Campina Grande do Sul (25.2965°S, 49.0381°W), 7-10.XII.2011, FIT (Caterino/Tishechkin Voucher EXO-00926, extraction MSC-2255 (MSCC); 1: Brazil, Paraná, Piraquara, Manancais da Serra, 1000 m, 25°29.77"S, 48°58.90"W, 1-8.XI.2007, FIT (CHND); 12: Brazil, Santa Catarina, Nova Teutonia, various dates from X-1939 to X-1972 (FMNH); 1: Paraguay, Canindeyú, Salto del Guairá, XII.1971 (MNHN-C).

FIGURE 11. Photos of *Phelister foveisternus* **sp. nov. A.** Prosternum and mesoventrite, ventral view; **B.** Head and pronotum, anterior view; **C.** Habitus, lateral view; **D.** Habitus, ventral view; **E.** Propygidium and pygidium, posterodorsal view.

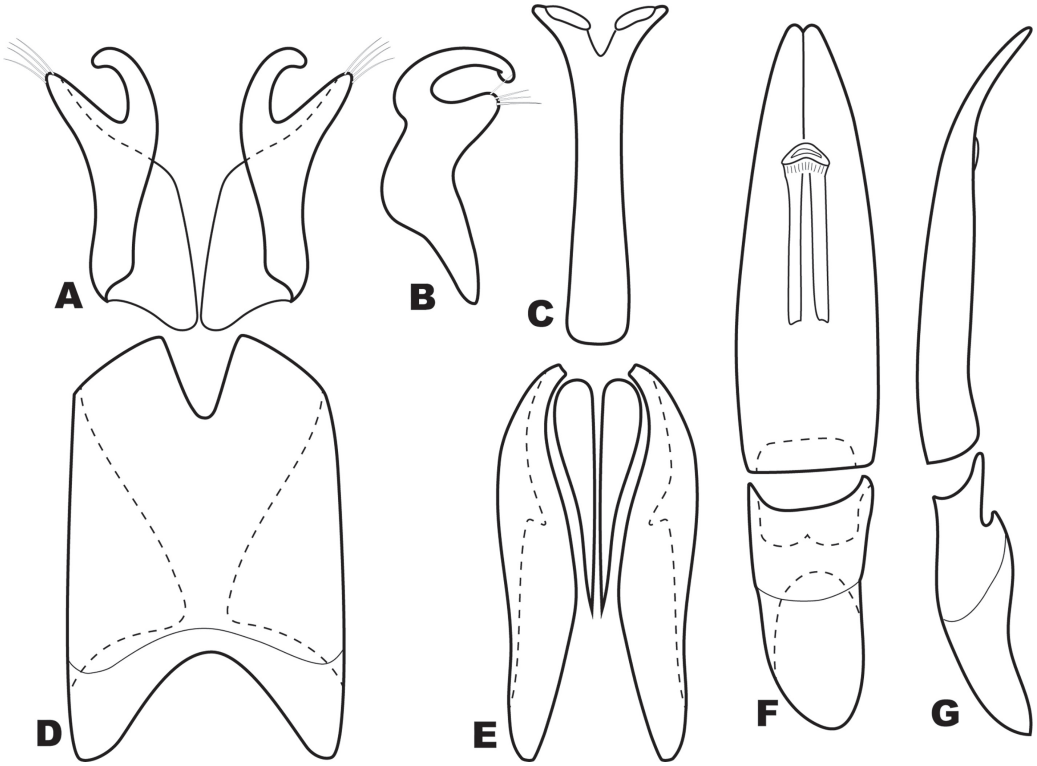

FIGURE 12. Male genitalia of *Phelister foveisternus* **sp. nov. A.** Sternite 8, dorsal view; **B.** Sternite 8, lateral view; **C.** Sternite 9 (spiculum gastrale), dorsal view; **D.** Tergite 8, dorsal view; **E.** Tergites 9 and 10, dorsal view; **F.** Aedeagus, dorsal view; **G.** Aedeagus, lateral view.

Diagnostic description. Length: 2.0–2.3 mm (avg. 2.1 mm); width: 1.9–2.1 mm (avg. 2.0 mm). Body broadly oval, black; ground punctation fine but conspicuous; frons weakly depressed at middle, frontal stria present, interrupted at middle, sometimes detached at sides; supraorbital stria present, detached at sides; labrum rather narrow, very weakly emarginate anteriorly; both mandibles with small tooth at base of incisor edge, that of right mandible arising more abruptly, that of left more gradual. Pronotum with sides broadly rounded, narrowed to anterior emargination; pronotal disk with basal margin punctate, with larger secondary punctures sparsely intermingled with ground punctation in lateral fourths; prescutellar impression shallow; submarginal pronotal striae present around anterior corners, reaching near midline on each side; prosternal keel weakly emarginate at base, keel striae complete, narrowly separated, joined posteriorly and anteriorly, finely punctate between; presternal suture deeply impressed as a median fovea; prosternal lobe slightly deflexed, with marginal stria complete. Elytron with single, rather deeply impressed epipleural stria; outer subhumeral stria nearly complete, variably abbreviated from anterior fourth; inner subhumeral stria absent; dorsal striae 1–4 complete, 4th arched toward base of sutural stria; 5th stria present in posterior one-third; sutural stria in posterior half to two-thirds; mesoventrite weakly produced at front, with complete marginal stria continued at side by short postmesocoxal stria; mesometaventral stria displaced forward onto basal fourth of mesoventrite, continued by distinctly crenulate inner metaventral stria posterolaterad to middle of hind coxa; recurrent stria present, crenulate; metaventral disk finely punctate, without secondary punctures. Tibiae rather narrow; protibial margin weakly rounded, bearing 5 small spines, weakly emarginate between; mesotibia with 3–4 long spines limited to apical half; metatibia with few small spines close to apical corner. Propygidium about two-thirds pygidium length, with secondary punctures distinctly denser in basal half, rather sparse in apical one-third; pygidium with small secondary punctures limited mainly to basal corners. Male: 8th tergite parallel-sided, with deep basal and apical emarginations; hooks of 8th sternite strong, curved slightly outward at apices; 9th sternite with moderate apical notch and small reflexed plates on either side; basal piece of aedeagus short, less than half as long as tegmen, deep apicoventral emargination with median point; tegmen rather broad, flat, weakly curved dorsoventrally; median lobe simple, with thick basal apodemes.

Etymology. This species name refers to the distinctive fovea present at the middle of the presternal suture.

Distribution. While most of the specimens of this species are from Paraná state, southeastern Brazil, it is also known from Santa Catarina state, as well as just over the Paraná River in Paraguay.

Remarks. While sharing the general body form and arched 4th dorsal stria of *P. acoposternus*, this species is easily distinguished by the fovea present in the middle of the presternal suture.

Discussion

This revision treats one of the most common and conspicuous groups of *Phelister* in the tropical Americas, second perhaps only to the *P. haemorrhous* group (treated in Caterino & Tishechkin 2019). Many Exosternini specimens found in 'typical' histerid microhabitats like dung and carrion will be members of this group. As with some other histerids associated with dung especially, it seems likely that at least some of the species (*P. panamensis* most likely) have expanded their ranges with the spread of domestic cattle (as has also been suggested for *Hister coenosus*; Caterino 1999). Future work on intraspecific phylogeography would be suitable for testing such hypotheses.

Within the *P. panamensis* group, there are two moderately distinctive aedeagal forms. In *P. amplistrius*, *P. brevistrius*, *P. apurimac*, and *P. pumilus*, the parameres are abruptly narrowed in the apical half or so, and the tip is curved distinctly ventrad. In the other species the parameres are more uniformly broad (especially so in *P. muscicapa* and *P. foveisternus*), and not as distinctly downturned apically. Both forms are found outside of the group in other *Phelister* species, so its directionality within the group is not clear. But it is conceivable that these shape differences have something to do with alternative mating strategies.

The New World fauna of Exosternini remains complex. Several distinctive and not-so-distinctive species groups remain to be revised, and numerous undescribed species are already known. We plan to continue to address these taxonomic shortcomings in the group, and hope that before long, this impressively diverse lineage of neotropical beetles reaches some satisfactory taxonomic resolution.

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Appendix 1–Material examined

1. *Phelister panamensis* J.E. LeConte

Argentina: Chaco: Rt.11, km 682 [-26,-60.5], 8-Mar-1991, T. Fincher & Cabrera (1ex., PKCC); Entre Rios: Liebig [-32.13,-58.27], 17-Dec-1986, G. Arriagada (1ex., CHND); Misiones: [-27.5,-55.8], December, 1977, G. Maccio (8ex., MNHN-C). **Belize:** Cayo: 20 km S. San Ignacio [16.9,-89], 5-Jun-1997, fruit pitfall trap, (1ex., MSCC); Cayo: Pook's Hill Lodge [17.16,-88.85], 5-Jun-2008-8-Jun-2008, Ratcliffe, Cave, Jameson, Orozco (1ex., UNL). **Bolivia:** Riberalta [-11,-66], Jan, 1922, W.M. Mann (1ex., USNM); Rio Pilcomayo [-22,-63], 4-Aug-1964, B. Malkin (23ex., FMNH); Rio Pilcomayo, 50 km S Villa Montes [-22,-63], 4-Aug-1964, horse dung, B. Malkin (1ex., MSCC). **Brazil:** Espirito Santo: Mun Linhares, Faz Lagoa do Macuco [-19.06,-39.98], 25-Jan-2000, Genier & Ide (1ex., CMNC); Goiás: Minaçu [-13.5,-48.23], 5-Jan-2000, (3ex., CHND); Goiás: Santa Isabel, Ilha Bananal, Araguaia Riv. [-10.9,-50.2], 15-Jul-1957-24-Jul-1957, in animal dung, B. Malkin (16ex., FMNH); Maranhão: Estreito [-6.57,-47.45], May, 1993, FIT, (3ex., AKTC); Mato Grosso: Barro do Tapirape [-10.6,-50.6], 12-Jul-1963-28-Jul-1963, in animal dung, B. Malkin (3ex., FMNH); Mato Grosso: Barro do Tapirape [-10.6,-50.6], 4-Mar-1962, in dung, B. Malkin (7ex., FMNH); Mato Grosso: Corumba [-19,-57.6], (1ex., FMNH); Mato Grosso: Cuyaba [-15.6,-56.1], (1ex., FMNH); Mato Grosso do Sul: UNESP Farm, nr. Selviria [-20.3845,-51.4079], 1-Dec-2011, in cow dung, Caterino & Tishechkin (1ex., MSCC); same locality, window trap in cerradão fragment, C. Flechtmann (AKTC and UNESP); Mato Grosso do Sul: Campo Grande-Cuiabá, km 46 [-20.72,-54.4], 23-Jan-1992-27-Jan-1992, FIT, (7ex., AKTC); Mato Grosso do Sul: Norte Nueva Alborada, 17-Jul-1988, (2ex., MNHN-C); Mato Grosso do Sul: Sidrolandia [-20.92,-54.97], Jan, 1992, FIT, (3ex., AKTC); Minas Gerais: Rio Urucuia, Arinos [-15.92,-46.07], 20-Apr-1994-11-May-1994, FIT, (8ex., CHND); Rio Grande do Sul: Fortaleza dos Valos [-28.8,-53.2], November, 1953, F. Plaumann (10ex., FMNH); Rio Grande do Sul: Fortaleza dos Valos [-28.8,-53.2], 20-May-1957, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 23-May-1957, in horse manure, F. Plaumann (2ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 1-Jun-1957, in horse manure, F. Plaumann (2ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 25-May-1957, in horse manure, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 20-May-1957, in horse manure, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 6-Nov-1952, F. Plaumann (2ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 6-Aug-1951-30-Aug-1951, F. Plaumann (5ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 1-Dec-1955, F. Plaumann (2ex., FMNH); Santa Catharina: [-27.16,-52.42], May, 1941, F. Plaumann (1ex., FMNH); São Paolo: Tieté [-23.5,-46.7], 21-Sep-1933, (1ex., USNM); Chapada [-15.42,-55.8], (3ex., Carnegie). **Colombia:** Meta: Peralonso, Caño Pachaquiaro [4.1,-73.2], 4-Sep-1965, J.A. Ramos (1ex., USNM); Meta: Restrepo [4.3,-73.6], 4-Dec-1965, J.A. Ramos (1ex., USNM); Tolima: Armero [4.9,-74.9], 30-Jan-1977-5-Feb-1977, Malaise trap, E.L. Peyton (5ex., USNM); Pto. Barrio [Berrio?] [6.5,-74.4], 8/5/1938 (38?); cow dung, H. Dybas (1ex., AMNH). **Costa Rica:** Alajuela: R.N. Caño Negro [10.9,-84.8], Mar, 1993, (5ex., INBIO); Alajuela: R.N. Caño Negro [10.9,-84.8], 30-Nov-1992, K. Martinez (2ex., INBIO); Alajuela: R.N. Caño Negro [10.9,-84.8], 6-Mar-1993-29-Mar-1993, K. Martinez (1ex., INBIO); Alajuela: Caño Negro, Playauelas [10.9,-84.8], 20m, 6-Mar-1994-26-Mar-1994, K. Flores (2ex., INBIO); Guanacaste: P.N. Guanacaste, Finca Jenny, 30 km N. de Liberia [10.4,-85.58], January, 1992, E. Araya (4ex., INBIO); Guanacaste: P.N. Guanacaste, Los Almendros [10.4,-85.7], 28-Mar-1992-24-Apr-1992, G. Gallardo (1ex., INBIO); Guanacaste: Ref. Nac. R.L.Rodriguez [10.35,-85.34], May, 1991, (38ex., INBIO); Guanacaste: 3 km SE R. Naranjo [10.6,-85.1], 10-Feb-1992, F.D. Parker (7ex., PKCC); Guanacaste: 6 mi S La Cruz, Rt. 1 [10.7,-85.6], 11-Jun-1964, R.E. Woodruff (1ex., FSCA); Guanacaste: 6 mi. W Bagaces [10.5,-85.3], 34516, S. O'Keefe (2ex., MSCC); Guanacaste: Bagaces [10.53,-85.25], 21-Jun-1993, under decayed leaves, Caterino & Doyen (1ex., MSCC); Guanacaste: Volcan Miravalles [10.7,-85.15], 6-Jul-1993, in cow dung, Caterino & Doyen (18ex., MSCC); Limón: A.C. Amistad, Amubri [9.5,-82.96], 70m, 8-Mar-1994-30-Mar-1994, G. Gallardo (3ex., INBIO); Limón: Sardinas, Barra del Colorado [10.7,-85.6], 15m, 29-Jul-1994-20-Aug-1994, F.V. Araya (9ex., INBIO); Limón: Sardinas, Barra del Colorado [10.7,-85.6], 15m, 1-Oct-1994-15-Oct-1994, F.V. Araya (1ex., INBIO); Limón: Sector Cerro Cocori, Finca de E. Rojas [10.6,-83.72], 159m, 26-Mar-1992-24-Apr-1992, F.A. Quesada (1ex., INBIO); Puntarenas: R.B. Carara, Estacion Quebrada Bonita [9.7,-84.6], November, 1993, R. Guzmán (1ex., INBIO); Puntarenas: 8 mi NW Esparta [10.1,-84.6], 26-Jun-1967, P.J. Spangler (2ex., USNM); San Jose: San Jose [10,-84], 29-Jun-1966, S.B. Peck (2ex., FMNH); Tarbaca [9.8,-84.1], 22-Apr-1965, E.F. Legner (4ex., FMNH). **Cuba:** Habana: Cojimar [23.2,-82.3], 16-Feb-1922, A. Bierig (11ex., FMNH); Habana: Jamaica [22.9,-82.2], A. Bierig (2ex., FMNH); Isle of Pines [21.65,-82.85], 9-Jan-1950-19-Jan-1950, Lillian Ross

(1ex., FMNH); Sierra Leone, (2ex., FMNH); Soledad, nr. Cienfuego [22.1,-80.3], 6-Aug-1920, (1ex., FMNH); Soledad, nr. Cienfuego [22.1,-80.3], 17-Oct-1926, Darlington (1ex., FMNH). **Curaçao:** Coral Specht: 3 km E. Willemstad [12.1,-68.9], 15-Feb-1987, pitfall in desert scrub, W.E. Steiner & J. Swearingen (1ex., USNM). **Ecuador:** Loja: Macará, Cangonama Chico, Res. Biol. Laipuna [-4.3,-79.9], 828m, 12-Mar-2012, Arriagada (3ex., M.Dieguez); Manabí: San Lorenzo [-1.07,-80.9], 18-Oct-2004-22-Oct-2004, bosta de caballar, V.M. Diéguez (7ex., CHND); Puna Isl. [-2.8,-80.1], 9-Nov-1950, Michelbacher & Ross (1ex., CSCA). **El Salvador:** La Toma [13.8,-89.3], 16-May-1958, O.L. Cartwright (1ex., USNM); Mt. El Salvador, 8-Jul-1963, M. Irwing & D. Q Cavagnaro (1ex., CASC). **Guatemala:** Agua Caliente: [14.7,-90.3], Kellerman (1ex., FMNH); Escuintla: Zapote [14.4,-90.8], 19-Jul-1948, under bark, Mitchell (1ex., FMNH); Escuintla: Zapote [14.4,-90.8], 2400ft, 19-Jul-1948, R.D. Mitchell (3ex., FMNH); Guatemala City [14.6,-90.5], Champion (1ex., AMNH); Guatemala City [14.6,-90.5], Champion (1ex., USNM); Los Amates [15.2,-89.1], Kellerman (1ex., FMNH). **Honduras:** F. Morazan: 6km SE Zamorano [13.9,-86.9], 8-Jun-1994, thorn scrub, B.D. Gill (1ex., AKTC); Olancho: Catacamus [14.8,-85.9], 10-Jan-1979, R.W. Jones (1ex., PKCC); San Francisco: Morazan Zamorano [14,-87], 7-Jun-1994, breadfruit fall, Ashe & Brooks (5ex., SEMC); San Francisco: Morazan Zamorano [14,-87], 12-Jun-1994, grass trimmings, Ashe & Brooks (8ex., SEMC); Santa Barbara: La Fe, Finca La Roca, 5.3 km S. Peña Blanca [14.95,-88.03], 19-Jun-1994, decaying slash, Ashe & Brooks (1ex., SEMC). **Mexico:** Chiapas: P.N. El Aguacero [16.76,-93.53], 27-Sep-1986, R. Turnbow (1ex., PKCC); Chiapas: Carretera Tuxtla-Gutierrez, Chicoasan, encinar 16 de Septiembre [16.82,-93.18], 852m, 31-Mar-2005, in cow dung, Caballero (1ex., Ecosur); Chiapas: Carretera Tuxtla-Gutierrez, Chicoasan, encinar 16 de Septiembre [16.82,-93.18], 852m, 20-Mar-2005, in cow dung, Caballero (1ex., MSCC); Chiapas: Carretera Tuxtla-Gutierrez, Chicoasan, encinar 16 de Septiembre [16.82,-93.18], 852m, 10-Aug-2005, in cow dung, Caballero (1ex., Ecosur); Chiapas: Chilpancingo [17.1,-93.2], 1-May-1965, E.F. Legner (1ex., FMNH); Guerrero: 3 mi S Iguala [18.3,-99.5], 10-Jul-1966, Wagner (1ex., PKCC); Guerrero: 63.2 km NE Abyac de Alvarez [17.48,-100], 28-Jul-1992, tree fall litter, Ashe (1ex., SEMC); Michoacan: 11.4 km S Papatzindan [19,-100.7], 8-Jul-1982, in cow dung, Stribling (1ex., MSCC); Nayarit: 17 mi NW Tepic [21,-105], 23-Nov-1948, E.S. Ross (1ex., CASC); Nayarit: Ixtlan del Rio [21,-104], 22-Nov-1953, B. Malkin (1ex., CASC); Nuevo Leon: 5 mi W Monterrey [25.7,-100.5], 19-Jun-1975, LE Watrous (1ex., PKCC); Nuevo Leon: Monterrey [25.5,-100.3], 8-Jul-1974, W.E. Steiner (2ex., USNM); Oaxaca: Valerio Trujano [17.8,-96.9], 27-Jul-1937, (2ex., CASC); Puebla: Tehuacan [18.5,-97.4], 8-May-1965, E.F. Legner (3ex., FMNH); San Luis Potosí: 26 mi N. Valles [22,-99], 19-Aug-1941, H. Dybas (1ex., FMNH); San Luis Potosí: El Salto Falls [22.5,-99.4], 17-Jun-1963, in litter, Woodruff (1ex., MSCC); San Luis Potosí: Tamazunchale, 14 mi N [21.3,-99], 300ft, 22-Jun-1971-28-Jun-1971, ex refuse *Atta mexicana*, A.F. Newton (1ex., FMNH); San Luis Potosí: Valles [22.1,-100], 19-Aug-1941, H. Dybas (4ex., CMNC); Tamaulipas: 10 mi N Ciudad Victoria [23.9,-99.2], 20-Aug-1941, H. Dybas (25ex., FMNH); Tamaulipas: 21 km SW Santander Jimenez [24,-99], 6-Aug-1967, manure, W.E. Gibson (2ex., PKCC); Tamaulipas: 8 mi S Ciudad Victoria [23.6,-99.2], 17-Aug-1941, H. Dybas (1ex., FMNH); Tamaulipas: Ciudad Victoria, 10 mi. N. [23.9,-99.2], 20-Aug-1941, H. Dybas (1ex., FMNH); Tamaulipas: Villagran [24.5,-99.5], 16-Jun-1941, H. Dybas (1ex., FMNH); Veracruz: Dos Rios [19.5,-96.8], 1-Jul-1941, H. Dybas (1ex., FMNH); Veracruz: El Fortin [19.9,-97.1], 8-Jul-1941, H. Dybas (1ex., FMNH); Veracruz: Tejeria [19.4,-96.9], 4-Jul-1941, H. Dybas (7ex., FMNH); Yucatán: 3 km E Chichen Itza [20.6,-88.5], 23-Oct-1991, R. Turnbow (1ex., PKCC); Yucatán: Mérida [20.9,-89.6], 27-Jul-1979, C.L. Wilson (1ex., PKCC); Catamarco, 4-May-1965, E.F. Legner (1ex., FMNH). **Nicaragua:** Granada: Domitilla Reserve, ESE Nandaime [11.71,-85.95], 9-Jun-2006, C.B. Barr & W. Shepard (1ex., EMEC); Granada: Reserva Domitilla [11.71,-85.95], 6-Jun-2002-9-Jun-2002, FIT, Falin & Chatzimanolis (1ex., SEMC); Masaya: Laguna de Apoyo [11.9,-86], 15-Jan-1992-26-Jan-1992, E. van den Berghe (8ex., PKCC); Matagalpa: 3 mi W Sebaco [12.9,-86.1], 16-Jul-1974, C & L O'Brien (1ex., CASC); 16 mi W Sebaco [12.8,-86.2], 23-Aug-1972, G.F. & S. Hevel (3ex., USNM); Chontales [12.1,-85.2], Janson (1ex., AMNH); Chontales [12.1,-85.2], Janson (1ex., USNM); San Marcos [11.9,-86.2], Baker (2ex., USNM). **Panama:** Canal Zone: Ciricito [9,-80], 8-Mar-1930, Blackwelder (2ex., USNM); Canal Zone: Cocoli [8.9,-79.6], 28-Dec-1987-2-Jan-1988, MacDonald & Schiefer (2ex., PKCC); Canal Zone: Empire Range, Hill 162 [9,-79.6], 8-Jan-1988, MacDonald & Schiefer (2ex., PKCC); Cocle: El Valle, Rio Guayabo, 2400ft, 23-Feb-1959, in log debris with ant nest, H. Dybas (2ex., FMNH); Cocle: El Valle, trail to Las Minas from 'La Mera', 2400ft, February, 1959, from trail with snapping ants, H. Dybas (1ex., FMNH); Colón: P.N. Lorenzo, Achiote [9.2,-79.97], 7-May-2007-21-May-2007, FIT, A. Mercado (4ex., AKTC & USNM); Colón: P.N. Lorenzo, Achiote [9.2,-79.97], 26-Jun-2007-10-Jul-2007, FIT, A. Mercado (1ex., AKTC); Colón: P.N. Lorenzo, Achiote [9.2,-79.97], 12-Jan-2008-27-Jan-2008, FIT, A. Mercado (1ex., AKTC); Colón: P.N. Lorenzo, Achiote [9.2,-79.97], 17-Mar-2008-31-Mar-2008, FIT,

A. Mercado (1ex., AKTC); Panama: El Llano-Carti Rd., 8km N El Llano [9.3,-79], 24-Jan-1993, dung & carrion traps, Carlson & Hovore (4ex., MSCC); Panama: San Carlos [8.4,-79.9], 19-Feb-1959, in decaying cactus, H. Dybas (3ex., FMNH); Veraguas: San Pedro, west of Santiago [8.1,-80.9], 3-Mar-1959, H. Dybas (3ex., FMNH); Argas, 28-Apr-1911, A. Busck (1ex., USNM). **Paraguay:** Alta Paraná: Reserva Biologica Limoy [-24.83,-54.48], 24-Oct-1990-26-Oct-1990, G. Arriagada (5ex., CHND); Amambay: P.N. Cerro Cora [-22.67,-55.98], 20-Jul-1988, C. Aguilar (8ex., CHND); Boquerón: Loma Plata [-22.38,-59.85], 7-Feb-1993, P. Gerlach (2ex., CHND); Canindeyú: Estancia Pozueo [-24.48,-54.5], 12-Dec-1990, G. Arriagada (1ex., CHND); Canindeyú: Salto de Guairá [-24.05,-54.35], 13-Dec-1990, G. Arriagada (4ex., CHND); Cazaapa: San Rafael Reserve, Hermosa, prop. Lopez family [-26.32,-55.74], 2-Dec-2000, cow dung, Z.H. Falin (1ex., SEMC); Itapua: Itapúa Poty [-26.58,-55.57], 2-Feb-1991-28-Feb-1991, C. Aguilar (1ex., CHND). **Tobago:** Starwood Rd. N. of Speyside [11.3,-60.5], 18-Jul-2005, cow dung, C.B. Barr (3ex., EMEC). **Trinidad:** St. George: Simla Res. Sta., Arima Valley [10.63,-61.29], 3-Jun-2000, guinea pig dung, A. Ramsdale (6ex., MTEC); St. George: Simla Res. Sta., Arima Valley [10.63,-61.29], 24-May-2000, under bark, A. Ramsdale (1ex., MTEC); Balendra Bay [10.7,-61], (3ex., FMNH); Port of Spain [10.6,-61.5], 28-Dec-1935, Blackwelder (3ex., USNM). **USA:** New Mexico: 1 mi N Rodeo [31.9,-109], 14-Jul-1977, G.H. Nelson (1ex., FSCA); Texas: western Cameron Co. [26.2,-97.8], 29-Jun-1946, under bark scorched Yucca, G.B. Vogt (6ex., USNM); Texas: western Cameron Co. [26.2,-97.8], 2-Jun-1946, rotten Opuntia, G.B. Vogt (1ex., USNM); Texas: western Cameron Co. [26.2,-97.8], 11-May-1946, rotten Opuntia, G.B. Vogt (1ex., USNM); Texas: 1 mi S. Fredericksburg [30.2,-98.9], 16-Sep-1977, R.R. Blume (2ex., FMNH); Texas: southwestern Hidalgo Co. [26.2,-98.4], 6-Mar-1948, under dung, G.B. Vogt (1ex., USNM); Texas: southwestern Hidalgo Co. [26.2,-98.4], 26-Jan-1947, at fermenting orange, G.B. Vogt (1ex., USNM); Texas: 25.3 mi S Sarita [26.9,-97.8], 28-Oct-1984, R. Turnbow (1ex., PKCC); Texas: Garner SP, Rio Frio Area [29.6,-99.7], 6-Jul-1972, W. Suter (1ex., FMNH); Texas: Brownsville [25.9,-97.4], 4-Oct-1951, O.L. Cartwright (1ex., USNM); Texas: Brownsville, Esperanza Ranch [25.9,-97.4], (1ex., USNM); Texas: Corpus Christi [27.8,-97.4], 22-Mar-1969, C.W. Griffin (1ex., USNM); Texas: Macdona [29.3,-98.7], July, 1929, H.A. Wenzel (2ex., FMNH); Texas: Mission, 1-Oct-1951, O.L. Cartwright (2ex., USNM); Texas: Pleasanton, 13-Dec-1945, G.B. Vogt (1ex., USNM). **Venezuela:** Aragua: H. Pittier N.P., 25 km NE Ocumare [10.37,-67.68], 80m, 4-Jul-1994-18-Jul-1994, FITcactus scrub forest, T.K. Philips (7ex., PKCC); Aragua: Puerto de Cata, 10-Jun-1976, A.S. Menke (1ex., USNM); Caracas valley, 29-Apr-1932, (1ex., FMNH); Casanay. Su. [10.5,-63.4], 150m, 27-Dec-1966, J.I. Garcia (1ex., LaSalle Caracas); La Trincheras [10.3,-68.1], Jun, 1922, (1ex., FMNH); Yacua, 20-Apr-1905, H.A. Beatty (1ex., USNM). **Argentina:** Buenos Aires: Florencio Varela [-34.79,-58.28], Nov, 1960, G. de Ferrarilla (1ex., CASC).

2. *Phelister amplistrius* Schmidt
Bolivia: Cochabamba: Cochabamba [-17.4,-66.1], 2600m, 15-Feb-1950-20-Feb-1950, Zischka, R. (1ex., FMNH).

3. *Phelister apurimac* sp. nov.
Peru: Apurimac: 35 mi. E. of Abancay [approx. -13.5, -72.4], 5-Mar-1951, Ross & Michelbacher (CASC-holotype); ; Apurimac: Curahuasi, Cerro San Cristobal [-13.5,-72.7], 2585m, excremento vacuno, V.M. Diéguez (Dieguez).

4. *Phelister brevistrius* Marseul
Brazil: Espirito Santo: 17km E Nova Friburgo [-22.38,-42.56], 750m, 23-Jan-2000-29-Jan-2000, FIT & dung pitfalls, Genier & Ide (6ex., CMNC); Espirito Santo: Mun Linhares, Faz Lagoa do Macuco [-19.06,-39.98], 27-Jan-2000, Genier & Ide (1ex., SEMC); Espirito Santo: Mun Linhares, Faz Lagoa do Macuco [-19.06,-39.98], 25-Jan-2000-27-Jan-2000, FIT & dung pitfalls, Genier & Ide (11ex., CMNC); Espirito Santo: Mun Linhares, Faz Lagoa do Macuco [-19.06,-39.98], 25-Jan-2000-27-Jan-2000, FIT & dung pitfalls, Genier & Ide (15ex., SEMC); Espirito Santo: Pico Pedra Azul [-20.43,-40.82], 1500m, January, 1999? [label says 1969], F.Z. Vaz-de-Mello (3ex., AKTC); Minas Gerais: Viçosa [-20.75,-42.88], November, 2000, FIT, F.Z. Vaz-de-Mello (2ex., AKTC); Minas Gerais: Viçosa [-20.75,-42.88], October, 2000, FIT, F.Z. Vaz-de-Mello (2ex., AKTC); Minas Gerais: Viçosa [-20.75,-42.88], December, 1998, FIT, F.Z. Vaz-de-Mello (2ex., AKTC); Minas Gerais: Viçosa, Mata do Paraíso [-20.81,-42.86], 4-Feb-2000, dung pitfall, F. Genier (1ex., CMNC); Minas Gerais: Viçosa, Mata do Paraíso [-20.81,-42.86], 4-Feb-2000, dung pitfall, F. Genier (1ex., SEMC); Pará: Monte Alegre [-3.15,-52.06], 17-Jun-1992-3-Jul-1992, FIT, (1ex., CHND); Paraná: Parque Estadual Guartelá [-24.5663,-50.257], 14-Dec-2011, rotting cactus, M.S. Caterino & A.K. Tishechkin (1ex., MSCC); Paraná: Ibipora, Faz Doralice [-23,-51], 14-Jan-2006, A.A. Santos (1ex., DZUP);

Pernambuco: Caruarú [-8.3,-36], April, 1972, M. Alvarenga (1ex., DZUP); Rio de Janeiro: Nova Friburgo, Sans Souci [-22.3,-42.5], 9-Nov-2009-15-Nov-2009, Interceptação de voo (FIT); , E. Grossi (6ex., DZUP); Rio de Janeiro: 17km E Nova Friburgo [-22.38,-42.56], 750m, 29-Jan-2000, f.i.t.secondary montane Atlantic forest, F. Genier & S. Ide (2ex., CMNC); Santa Catarina (1ex., BMNH); São Paulo: Cumbica, Guarulhos [-23.47,-46.53], 750m, 27-Apr-2003, excr. humano, F. Ramirez (1ex., CHND); São Paulo: Serra do Mar, Jureía [-24.36,-47.01], 900m, 5-Oct-1993, banane pourrie, (3ex., CHND). **Paraguay:** Canindeyú: Estancia Pozuelo [-24.48,-54.5], 12-Dec-1999, G. Arriagada (1ex., CHND); Canindeyú: Salto del Guairá [-24.05,-54.35], 13-Dec-1990, G. Arriagada (1ex., CHND); Cazaapa: San Rafael Reserve, Hermosa, prop. Lopez family [-26.31,-55.75], 1-Dec-2000-4-Dec-2000, flight intercept trap, Z.H. Falin (2ex., SEMC); Cazaapa: San Rafael Reserve, Hermosa, prop. Lopez family [-26.31,-55.75], 1-Dec-2000-3-Dec-2000, flight intercept trap, Z.H. Falin (4ex., CMNC); Cazaapa: San Rafael Reserve, Hermosa, prop. Lopez family [-26.32,-55.75], 3-Dec-2000-4-Dec-2000, FIT, Z.H. Falin (8ex., SEMC); Itapua: Encarnación [-22.38,-59.85], 20-Feb-1991, C. Aguilar (1ex., CHND); Itapua: Itapúa Poty [-26.58,-55.57], 2-Feb-1991-28-Feb-1991, C. Aguilar (3ex., CHND); Itapua: Karonay, 17 km W San Rafael Reserve [-26.76,-55.84], 18-Nov-2000-21-Nov-2000, FIT, Z. Falin (6ex., SEMC); Itapua: Karonay, 17 km W San Rafael Reserve [-26.76,-55.84], 18-Nov-2000-20-Nov-2000, FIT, Z. Falin (5ex., CMNC); Itapua: San Rafael Reserve, San Pedro Mt. [-26.52,-55.81], 27-Nov-2000-30-Nov-2000, FIT, Z. Falin (9ex., SEMC); Itapua: Yataí, San Rafael Reserve [-26.64,-55.66], 25-Nov-2000-26-Nov-2000, FIT, Z. Falin (2ex., SEMC); Itapua: Yataí, San Rafael Reserve [-26.64,-55.66], 21-Nov-2000-25-Nov-2000, FIT, Z. Falin (1ex., SEMC); Itapua: Yataí, San Rafael Reserve [-26.64,-55.66], 26-Nov-2000-30-Nov-2000, FIT, Z. Falin (2ex., CMNC); Dr. Bohls (1ex., FMNH).

5. *Phelister muscicapa* Marseul

Brazil: Rio Grande do Sul: Glória [-30.07,-51.2], 26-Aug-1925, ex. *Acromyrmex* sp. nest, Buck (63ex., FMNH, NHMM, AKTC, MSCC); Rio Grande do Sul: Glória [-30.07,-51.2], 7-Sep-1925, ex. *Acromyrmex* sp. nest, Buck (6ex., NHMM); Rio Grande do Sul: Glória [-30.07,-51.2], 13-Sep-1925, ex. *Acromyrmex* sp. nest, Buck (1ex., NHMM); Rio Grande do Sul: Menino Deus [-30.06,-51.22], 19-Jul-1925, ex. *Acromyrmex* sp. nest, Buck (3ex., FMNH); Rio Grande do Sul: Porto Alegre [-30.08,-51.2], with *Acromyrmex hispidus*, Buck (3ex., BMNH); Rio Grande do Sul: Teresópolis [-30.08,-51.21], 6-Sep-1925, ex. *Acromyrmex* sp. nest, Buck (4ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 1-Oct-1951, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 10-Mar-1951, F. Plaumann (1ex., FMNH).
Uruguay: Canelones: Atlantida [-34.8,-55.8], 9-Feb-1969, R.E. Woodruff (1ex., FSCA).

6. *Phelister acoposternus* Marseul

Bolivia: Santa Cruz: 4-5kmSSE Buena Vista, Hotel Flora y Fauna [-17.5,-63.65], 14-Dec-2003-24-Dec-2003, FIT, S. & J. Peck (4ex., AKTC). **Brazil:** Maranhão: Mirador, Caiçarinha [-6.37,-44.37], 1-May-1993, FIT, N. Degallier (4ex., CHND); Mato Grosso: Cotriguacu, Fazenda São Nicolau [-9.84,-58.25], Oct, 2009, Gigliotti (ex.); Pará: Aldeia, Coraci, 12 km W. Caninde [-2,-46], 3-Dec-1964, on monkey carcass, B. Malkin (1ex., FMNH); Pará: Aldeia, Yavaruhu, Igarape, Gurupi-Una, 50 km E. Caninde, 11-Feb-1966-25-Feb-1966, under dead dog, B. Malkin (6ex., FMNH); Pará: Altamira–Marabá, km18 [-3.15,-52.05], May, 1985, FIT, N. Degallier (4ex., CHND); Pará: Altamira–Marabá, km18 [-3.15,-52.05], 24-Nov-1983, FIT, N. Degallier (1ex., CHND); Pará: Barcarena [-1.5,-48.62], 13-Jun-1991-25-Jun-1991, FIT, N. Degallier (3ex., CHND); Pará: Belém, Utinga (IPEAN); [-1.45,-48.43], October, 1986, N. Degallier (2ex., CHND); Pará: Belém, Utinga (IPEAN); [-1.45,-48.43], July, 1985, N. Degallier (1ex., CHND); Pará: Belém, Utinga (IPEAN); [-1.45,-48.43], November, 1984, N. Degallier (1ex., CHND); Pará: Ile de Mosqueiro [-1.2,-48.4], 9-Nov-1983, ex. humano, (1ex., CHND); Pará: Monte Alegre [-3.15,-52.05], 17-Jun-1992-3-Jul-1992, FIT, N. Degallier (3ex., CHND); Pará: Tucuruí [-3.08,-49.67], 23-Jun-1986-7-Jul-1986, FIT, N. Degallier (7ex., CHND); Pará: Tucuruí [-3.08,-49.67], April, 1985, FIT, N. Degallier (1ex., CHND); Pará: Tucuruí [-3.08,-49.67], 19-Jun-1986-7-Jul-1986, FIT, N. Degallier (4ex., CHND); Rio Caraguatá [-21.8,-52.45], 400m, 21-Mar-1953, F. Plaumann (1ex., FMNH). **Colombia:** Meta: Villavicencio [4.1,-73.6], 18-Dec-1938, H. Dybas (1ex., FMNH); Villavicencio [4.1,-73.6], 23-Dec-1938, in manure, H. Dybas (1ex., FMNH). **Ecuador:** Pichincha: Rio Palenque Sta., 47 km S. Sto Domingo [-0.59,-79.4], 29-May-1975, fruit litter, S. Peck (5ex., FMNH); Pichincha: Rio Palenque Sta., 47 km S. Sto Domingo [-0.59,-79.4], 25-Feb-1976, under decaying fruit, S. Peck (2ex., FMNH). **Mexico:** Veracruz: Motzorongo [18.6,-96.7], Flohr (1ex., FMNH). **Venezuela:** Mt. Duida [3.5,-65.6], 4-Nov-1928, (1ex., AMNH).

7. *Phelister pumilus* Erichson

Argentina: Buenos Aires: Rosas [-35.97,-58.94], 1968, J. Daguerre (9ex., USNM); Buenos Aires: San Fernando [-34.44,-58.56], Nov, 1962, J. Daguerre (1ex., USNM); Buenos Aires: San Miguel [-34.55,-58.72], 8-Nov-1932, S.J.Williner (8ex., MNHN-C); Buenos Aires: San Miguel [-34.55,-58.72], 6-Oct-1932, S.J.Bridarolli (1ex., MNHN-C); Buenos Aires: [-34.5,-58.4], C. Bruch (1ex., BMNH); Buenos Aires: [-34.5,-58.4], Ritcher (1ex., BMNH); Cordoba: [-31.6,-64.15], Sept, C. Bruch (1ex., BMNH); Buenos Aires [-34.5,-58.4], Dec, 1922, Harrington (1ex., USNM); Haedo [-34.6,-58.6], Feb, 1925, Harrington (1ex., USNM); La Plata [-34.9,-57.9], Spegezzini (2ex., FMNH); Mar del Plata [-38,-57.5], Jan, 1986, (1ex., FMNH). **Bolivia:** Puerto Suarez [-19,-57], Dec, 1949, R. Zuchka (1ex., FMNH). **Brazil:** Paraná: Guartela SP, Tibago [-24.5,-50.2], 2-Nov-2009, P. Grossi (1ex., DZUP); Paraná: Guartela SP, Tibago [-24.5,-50.2], 28-Nov-2009, P. Grossi (3ex., DZUP); Paraná: Guartela SP, Tibago [-24.5,-50.2], Jun, 2009, P. Grossi (1ex., DZUP); Paraná: Ponta Grossa [-25.2,-50], (1ex., DZUP); Santa Catarina: Nova Teutonia [-27.16,-52.42], 16-Nov-1957, F. Plaumann (1ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], 16-Aug-1951, F. Plaumann (3ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], Jan, 1971, F. Plaumann (1ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], 23-Aug-1951, F. Plaumann (1ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], 25-Jun-1951, F. Plaumann (3ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], 20-Jun-1951, F. Plaumann (1ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], 6-Sep-1951, F. Plaumann (1ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], 12-Jun-1951, F. Plaumann (1ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], 14-Nov-1951, F. Plaumann (1ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], Oct, 1972, F. Plaumann (1ex., FMNH); Santa Catarina: Nova Teutonia [-27.16,-52.42], 20-May-1957, cow dung, F. Plaumann (1ex., FMNH); São Paolo: Paranapiacaba [-23.8,-46.3], 7-Jul-1957, B. Malkin (1ex., USNM); São Paolo: São Paolo [-23.5,-46.7], 2-Nov-1965, V.N. Alin (2ex., USNM); São Paolo: São Paolo [-23.5,-46.7], 12-Dec-1964, V.N. Alin (1ex., USNM); São Paolo: [-23.5,-46.7] (1ex., FMNH). **Uruguay:** Canelones: San Jacinto [-34.5,-55.9], 25-Jan-1965, E.F. Legner (1ex., FMNH); Maldonado: Laguna del Sauce [-34.8,-55], January, 1970, G. Maccio (1ex., MNHN-C); Paysandú: 20 km S. Salto [-31.7,-57.9], 100m, 13-Dec-2002-29-Dec-2002, carrion pitfall, S. Peck (1ex., CMNC); Florida [-34.1,-56.2], 27-Dec-1977, G. Maccio (1ex., MNHN-C); San Jose, June, 1978, G. Maccio (1ex., MNHN-C); Santa Isabel, 12-Feb-1909, (1ex., Carnegie).

8. *Phelister foveisternus* sp. nov.

Brazil: Paraná: Parque Estadual de Vila Velha, Ponta Grossa [-25.2,-50], 1-Nov-1999, Ganho & Marinoni (14ex., DZUP); Paraná: Parque Estadual de Vila Velha, Ponta Grossa [-25.2,-50], 25-Oct-1999, Ganho & Marinoni (10ex., DZUP); Paraná: Parque Estadual de Vila Velha, Ponta Grossa [-25.2,-50], 18-Oct-1999, Ganho & Marinoni (9ex., DZUP); Paraná: Parque Estadual de Vila Velha, Ponta Grossa [-25.2,-50], 8-Nov-1999, Ganho & Marinoni (1ex., DZUP); Paraná: Parque Estadual de Vila Velha, Ponta Grossa [-25.2,-50], 6-Dec-1999, Ganho & Marinoni (1ex., DZUP); Paraná: Mpio Curitiba, nr. Campina Grande do Sul [-25.2965,-49.0381], 10-Dec-2011, FIT, F.W.T. Leivas (1ex., MSCC); Paraná: Piraquara, Mananciais da Serra [-25.5,-48.98], 1000m, 8-Nov-2007, FIT, P. Grossi & D. Parizotto (1ex., CHND); Santa Catharina: Nova Teutonia [-27.16,-52.42], 4-Nov-1951-22-Nov-1951, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], May, 1941, F. Plaumann (2ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 30-Aug-1951, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 1-Nov-1957, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], 3-Nov-1960, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], October, 1939, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], October, 1940, F. Plaumann (1ex., FMNH); Santa Catharina: Nova Teutonia [-27.16,-52.42], October, 1972, F. Plaumann (3ex., FMNH). **Paraguay:** Canindeyú: Salto del Guairá, December, 1971, L. Peña (ex., MNHN-C).