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HISTORICAL REVIEW OF THE ENIGMATIC SMOOTH BARK-GNAWING BEETLE GENUS *DUPONTIELLA* SPINOLA, 1845 (COLEOPTERA: CLEROIDEA: TROGOSSITIDAE: TROGOSSITINAE) WITH THE DESCRIPTION OF TWO NEW SPECIES

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ABSTRACT

During the latter half of the 19th century, various authors addressed the family-level placement of the New World genus *DupontIELLA* Spinola, 1845, which possesses adult morphological characters indicating either Cleridae or Trogossitidae. After finally being placed in the latter family, the genus has received little analysis presumably due to unknown type repositories and a lack of additional museum specimens. With the recent discovery of museum specimens aligning with *DupontIELLA* but differing in key respects, a historical review of the genus is presented. As a result, *DupontIELLA quechucha* Kippenhan, **new species**, based on three specimens collected in Ecuador, and *DupontIELLA unomas* Kippenhan, **new species**, based on three specimens collected in Colombia, are described and figured. The provisional placement of the new taxa in *DupontIELLA* is discussed.

Keywords: Cleridae, Cleroidea, Neotropical, taxonomy

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INTRODUCTION

As we near the 200th anniversary of the description of the genus *DupontIELLA* Spinola, 1845, one certainty remains: our understanding of this New World Cleroidea genus remains as sketchy today as it was in the latter half of the 19th century. The discovery of four clerid-like specimens in the Florida State Collection of Arthropods (FSCA) clearly belonging to the Trogossitidae, and only assignable to *DupontIELLA*, prompted this investigation in spite of questions regarding family-level placement and unknown type repositories. The apparent rarity of *DupontIELLA* specimens in museum collections was reinforced when the author located only a single, partial specimen in the Muséum National d'Histoire Naturelle (MNHN) (Figs. 7A–C). Then, during the manuscript review process, two specimens on loan to Richard Leschen (New Zealand Arthropod Collection, Auckland, New Zealand) from the Field Museum of Natural History (FMNH) were identified and provided to the author.

Since its description in Spinola's (1845a, b; see Bousquet 2016 for information on publication dates) two-part monograph of the Cleridae, *DupontIELLA* has been comprised of only two taxa: the type species, *DupontIELLA ichneumonoides* Spinola, 1845, based on a single specimen from the collection of "Dupont", most likely Henri Dupont (Mearns *et al.* 2016), and *DupontIELLA fasciatella* Spinola, 1845,

based on a single specimen from the collection of Jean Baptiste Lucien Buquet. Spinola's (1845b) generic description was formed primarily on *D. ichneumonoides* and included important morphological characters: narrow, cylindric body; antenna with 11 antennomeres, the last three forming a flattened, serrated club; large, robust mandibles; filiform tarsi each with five distinct tarsomeres, the first four being of subequal length; highly constricted pronotum; elytral surface uneven with color pattern comprising at least one pair of white or yellow bands. According to Spinola (1845b), the lightly punctured elytra lacking striae of *D. ichneumonoides* differed from the elytra of *D. fasciatella* with 10 rows of large, evenly spaced serial punctures.

Despite descriptions and illustrations depicting dorsal color patterns more akin to Cleridae than Trogossitidae, and the first four tarsomeres being distinct and subequal in length—traits that could easily lead one to conclude that *DupontIELLA* belonged to Cleridae—Spinola (1845a, b) was clear in asserting that the genus did not belong to the latter family. In volume one, an easily overlooked remark regarding the yet-to-be described genus was made: Spinola (1845a) considered *DupontIELLA* a link between the clerid genera *Cylidrus* Latreille, 1829 and *Denops* Fischer von Waldheim, 1829 and the "Nemozomes and the Colydies". Spinola (1845a) based his remarks in part on the lack of ventral lobes on tarsomeres 1–4 and simple tarsal claws. In the

index, Spinola (1845b) listed *Dupontiella* as one of two genera under the heading “Descriptions of some genera related to Clerites”. Although Spinola (1845a, b) never attributed *Dupontiella* to a family, when discussing the type species, he posed a rhetorical question regarding the shape of the mandibles and their similarity to “...certain Xylophages and in particular with the Trogosites and with the Colydia”. Strangely, while tarsomeres were central in Spinola’s (1845a, b) definition of the genus, he proceeded to place *D. fasciatella* in the genus despite the type specimen being in such poor condition that it lacked appendages. In the habitus illustration of this species on plate VIII, Spinola (1845b) went so far as to include a speculative rendering of the missing appendages. This arrangement, however, was tenuous as in both the index and plate it appeared as “*Dupontiella? fasciatella*” (Spinola 1845b). It should be noted that at the time of writing, the online version of Spinola (1845b) does not include plate XII with *D. ichneumonoides*; however, a reproduction of this plate can be found in Kolibáč (2013).

Questions regarding the familial placement persisted when Lacordaire (1857) commented that despite the existence of clerids lacking ventral tarsal lobes and having filiform tarsomeres, as well as the very clerid-like dorsal coloration of *Dupontiella*, he could not definitively ascertain its family. Lacordaire (1857) noted that while it resembled members of *Temnoscheila* Westwood, 1830, and he was inclined to include it in the Trogossitidae, it lacked the reduced first tarsomere and oval, transverse pro- and mesocoxae. Neither Spinola (1845b) nor Lacordaire (1857) mentioned coxal shape—projecting below the prosternal process in the Cleridae but not in the Trogossitidae—which is important for family identification (Gimmel *et al.* 2019).

Kolibáč (2013) incorrectly attributed the placement of *Dupontiella* in the Trogossitidae to Lacordaire (1857), when in fact, it was Chevrolat (1874) who unequivocally stated that both *D. ichneumonoides* and *D. fasciatella* were not clerids and instead belonged to the “Trogositaires”. Observing that they resembled the clerid genera *Denops* and *Clerus* Geoffroy, 1862, Reitter (1876) included *Dupontiella* in his partial synopsis of the Trogossitidae, placing the genus in the tribe Nemozomatini (as “Nemozomini”), stating that its body shape was similar to that of *Nemozoma* Latreille, 1804. The comparison to *Nemozoma* is peculiar as taxa belonging to this genus have parallel, cylindrical bodies, with pronota exhibiting very little basal constriction, and rounded elytral humeri (Barron 1971; Kolibáč 2013). Reitter (1876) observed that *Dupontiella* exhibits acutely expanded humeral angles similar to *Tenebroides* Piller and Mitterpacher, 1783, a character clearly depicted in Spinola’s (1845b) illustration.

It is unclear whether Lacordaire (1857) examined the types of either *D. ichneumonoides* or *D. fasciatella*, or based his remarks solely on their descriptions. Chevrolat’s (1874) and Reitter’s (1876) comments on *D. ichneumonoides* were clearly informed by an actual specimen, as Reitter (1876) thanked Chevrolat for allowing him to examine the one from his collection, though neither specified if it was the type specimen. By 1875, Dupont’s collection was in the possession of G. Mniszech, while Buquet’s was with either F. de La Ferté-Sénectère or G. Mniszech (Cambefort 2006); thus, it is plausible that Chevrolat examined the type. Further evidence supporting the examination of a specimen matching the type by Chevrolat and Reitter is Reitter’s (1876) observation of the acute humeral angles of *D. ichneumonoides* which correlates with Spinola’s (1845b) description. Neither Ekis (1975) nor Giachino (1982) recorded either type in the Spinola collection while Kolibáč (2013) stated that the type of *D. ichneumonoides* was not in the Chevrolat collection at the Muséum National d’Histoire Naturelle, Paris.

All subsequent catalogs of the Trogossitidae—Léveillé (1888, 1910), Blackwelder (1945), and Kolibáč (2013)—followed Chevrolat’s (1874) and Reitter’s (1876) inclusion of *Dupontiella* in this family despite the fact that it is anomalous within the Trogossitidae due to its articulated and unreduced first tarsomere.

Neither Spinola (1845b) nor Reitter (1876) described whether the mesocoxae of *D. ichneumonoides* were open or closed, a key character determining the placement of genera within either the Egoiinae or Trogossitinae (Gimmel *et al.* 2019; Kolibáč 2013). Consequently, Kolibáč’s (2013) placement of *Dupontiella* in the Trogossitini (Trogossitinae *sensu* Gimmel *et al.* 2019) was based upon morphological similarities to *Nemozoma* and *Corticotomus* Sharp, 1891.

Understanding the type localities and consequent distribution of both *D. ichneumonoides* and *D. fasciatella* as recorded in these catalogs requires clarity. Spinola (1845b) documented the “Patrie” of *D. ichneumonoides* as Colombia and *D. fasciatella* only as “Amérique méridionale”. Subsequently, assertions of the origins of the specimens varied: Lacordaire (1857) stated *D. ichneumonoides* originated from Colombia, Chevrolat (1874) mentioned “New Grenada” (Colombia) for both, Reitter (1876) and Léveillé (1910) cited “Caracas” (Venezuela), Blackwelder (1945) indicated Venezuela for both, and finally Kolibáč (2013) specified “Caracas, Venezuela” for both species.

Returning to the four FSCA and FMNH specimens: utilizing the family/subfamily key in Gimmel *et al.* (2019) resulted in their classification under Trogossitidae: Trogossitinae. Unfortunately, the

generic key provided in Kolibáč (2013) proved unsuitable for further determinations due to the pronotal character combination in couplet 3. However, excluding pronotal shape, the key is adequate—though somewhat simplified—for identifying them as *Dupontiella*. Therefore, based on comparison with generic descriptions (Reitter 1876; Spinola 1845b) and the habitus illustration reproduced in Kolibáč (2013), as well as anecdotal evidence, the newly discovered specimens are placed in *Dupontiella*.

MATERIALS AND METHODS

Institutional abbreviations mentioned in the text are as follows:

FMNH	Field Museum of Natural History, Chicago, Illinois, USA (Maureen Turcatel)
FSCA	Florida State Collection of Arthropods, Gainesville, Florida, USA (Kyle Schnepf)
MNHN	Muséum National d'Histoire Naturelle, Paris, France (Antoine Mantilleri)

The author utilizes the phylogenetic species concept of Wheeler and Platnick (2000) and morphological terminology following Lawrence *et al.* (2011). Specimen dissection followed Ferreira and Ivie (2023). The holotypes and female paratype were soaked in hot water until the abdomen and genitalia could be easily removed. The genitalia were then partially cleared by soaking in a 5% KOH solution at room temperature for several hours, followed by an overnight soak in dH₂O. Dissected male genitalia were glued to a mounting board under the respective specimen using diluted Elmer's® Washable Clear Glue. The ovipositor was preserved in a microtube with glycerin below the respective specimen.

Morphological characters of adult specimens utilized during this study were examined with an AmScope SM745 stereomicroscope. Measurements were taken with a Bioquip 5-mm hand-held micro-ruler where measurements for the head, pronotum, and elytra were taken independently from one another: head length (HL) was measured from the tips of the bilobed projections to the anterior margin of the pronotum; head width (HW) was the maximum width across the eyes; pronotal length (PL) was measured along the midline from the anterior to posterior margins; pronotal width was measured across the maximum width; elytral length (EL) was measured from the humeral angles to the apex; elytral width (EW) was measured across both elytra at the maximum width which occurs in the posterior quarter. Quoted specimen label data utilizes a

forward slash (/) to represent line breaks and a double forward slash (//) to separate labels. All data is presented verbatim. All labels are typeset unless otherwise noted.

Illustrations were created by the author as follows: a photograph of the subject was taken through the eyepiece of the AmScope SM745 stereomicroscope utilizing a hand-held iPhone. The resulting image was next opened in Adobe Photoshop® where it was converted to grayscale and “Image > Levels” adjusted to obtain the desired contrast. The image was then printed on a black-and-white laser printer, after which it was traced by hand and refined while comparing it to the actual subject. This initial sketch was enlarged to the desired size and further refined through a series of comparative tracings to capture the details, proportions, and perspective of the subject. Once a sketch was determined to best represent the subject, it was rendered on translucent Mylar film utilizing a Koh-I-Noor Rapidograph® pen where details and shading were applied.

TAXONOMY

Dupontiella quechucha Kippenhan, new species

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(Figs. 1A–C, 2A, B, 4A, 5A–F, 6A)

Diagnosis. Tarsomere 1 short and fused to tarsomere 2, elytra with humeral angles rounded, and dorsal coloration will separate it from *D. ichneu-monoides*. The impunctate elytra and dorsal coloration will separate it from *D. fasciatella*. Dorsal surface of head and pronotum with shallow punctures, eyes slightly convex, and protibia with apex gradually dilated and a proportionally smaller lateral spine will distinguish it from the following species.

Type Specimens. Holotype: Male, “ECUADOR. Tungurahua / Runtun (above Baños) / 2500m. Sept 24-25, 1996 / E. Giesbert, coll. // [red label] HOLOTYPE / *Dupontiella quechucha* / M. Kippenhan” (FSCA). **Paratypes:** Female, same data as holotype, except “[yellow label] PARATYPE / *Dupontiella quechucha* / M. Kippenhan” (FSCA); male, “Ecuador, Napo pr. / 20km S. Baeza, / 2300m Oct. 14, 1995 / E. Giesbert coll. // [yellow label] PARATYPE / *Dupontiella quechucha* / M. Kippenhan” (FSCA).

Description. Holotype. Male (Figs. 1A, B). Overall length: 7.9 mm; HL: 2.15 mm, HW: 1.5 mm, PL: 1.5 mm, PW: 1.5 mm, EL: 4.25 mm, EW: 1.75 mm. **Head** uniformly black with velvety microsculpture (Fig. 4A); widest across eyes, slightly tapered anteriorly and posteriorly, length subequal to pronotum; frons and vertex shallowly convex; frontoclypeus bidentate; labrum black, short, broadly emarginate, anterior margin declivous with short setae; mandibles black, stout, thick, base wide, with



Fig. 1. *Dupontiella quechucha*, new species, holotype male (FSCA). A) Lateral habitus, B) Dorsal habitus, C) Labels. Scale bar is for A, B.

shallow, irregularly spaced medium-sized round punctures in basal portion becoming smaller, fainter, and more elongate at apex, with two teeth, second tooth small, both impunctate and slightly bent downward; apical palpomere of both maxillary and labial palps subcylindrical, widest in middle, apex blunt; head shallowly punctate, punctures small to medium sized, relatively uniformly spaced, slightly to moderately elongate, approximately two to three times as long as wide, directed more-or-less longitudinally, some punctures bearing very short, white seta, punctures on lateral surfaces faint; medium sized, well defined subcircular punctures along

posterior border of eye; ventral surface with metallic sheen, with well-defined round punctures, medium sized, widely, irregularly spaced, surface of anterior half uneven; submentum trisinate, impunctate (Fig. 5B); eye size medium, subovate, smoothly faceted, raised slightly above contour of head (Fig. 4A). **Antenna** long, apex of terminal antennomere extending beyond middle of pronotum, composed of 11 antennomeres with scattered long setae throughout; scape large, subcylindrical, castaneous; pedicel small, castaneous; antennomeres gradually longer from 3 to 5, gradually shorter and wider from 6 to 8, color becoming gradually darker from castaneous

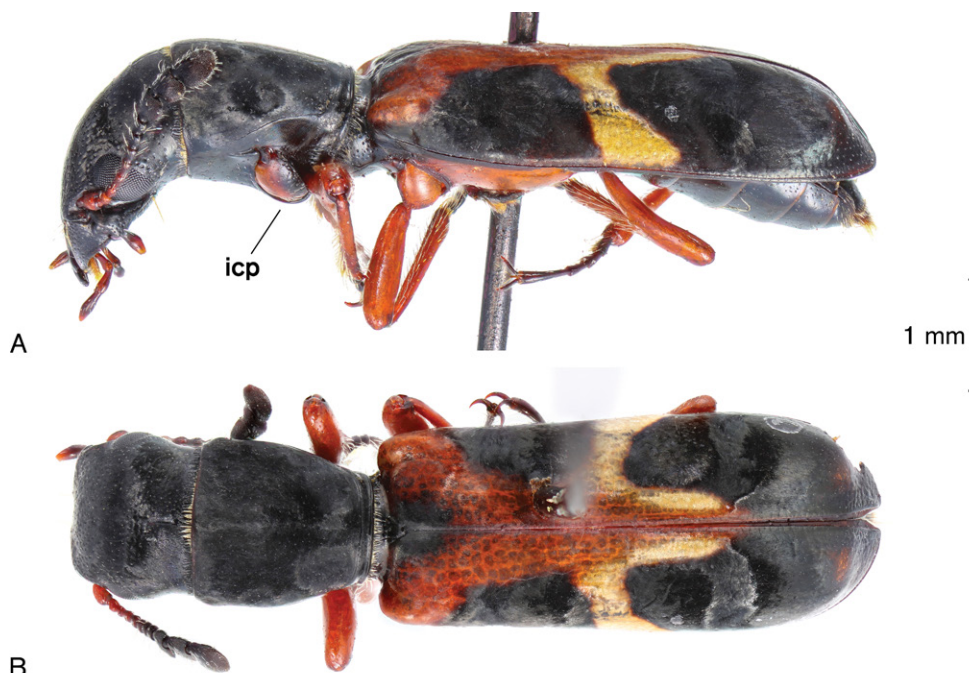


Fig. 2. *Dupontiella quechucha*, new species, paratype female (FSCA). A) Lateral habitus, B) Dorsal habitus. Abbreviation: icp—intercoxal process of the prosternum.

antennomere 3 to black antennomere 11, antennomeres 9–10 asymmetrically, bilaterally expanded and antennomere 11 unilaterally expanded to form stout, loose club with densely spaced minute setae on sensorial fields; sensorial fields on antennomeres 9–10 covering approximately 40% of surface, on antennomere 11 covering approximately 50% of surface; antennomere 11 subcircular, longer than wide (Fig. 5A). **Pronotum** uniformly black with velvety microsculpture; subquadrate, widest behind anterior margin, subparallel in anterior half, strongly tapering inward in basal half towards posterior margin, anterior margin slightly sinuate, basal angles inconspicuous; subcylindrical, sides strongly rounded, lateral carina obsolete with faint lateral bead evident, anterior half of bead strongly curved downward, posterior half strongly curved upward; anterior margin of pronotum and prosternum continuous; disc with faint, widely, irregularly spaced circular punctures, some punctures bearing very short, white seta, center of disc appearing almost impunctate. **Scutellar shield** elongate, widest at base, gradually tapering to rounded apex, piceous. **Elytra** with velvety microsculpture throughout; lateral margin between humerus and middle black, black coloration extended medially in center portion, apical half with margin black, black coloration extended medially, humerus broadly castaneous, castaneous coloration extending obliquely to suture in basal half, middle

with yellow band extending anteriorly and medially to castaneous area then extending obliquely posteriorly along suture, apical fourth with rounded testaceous to castaneous area along suture, this area extended inward (Figs. 1A, B); elytral length slightly greater than head and pronotal length combined, width greater than width across eyes, in dorsal view slightly constricted near middle, widest at apical four-fifths; anterior fourth medially elevated in lateral view; humeral angles with projecting, broadly rounded anterior margin, lateral margin projecting outward and upward; impunctate, apical fifth with small, faintly impressed circular punctures laterally; epipleuron complete, narrow; basal marginal bead of epipleuron absent. **Prosternum** uniformly black with metallic sheen, punctures medium- to large-sized, circular, widely spaced, well impressed; notosternal suture short, wide, sinuate, length extends to approximately midpoint between anterolateral apex of coxal cavity and anterior margin of prosternum; hypomeron impunctate; intercoxal process (Fig. 2A) strongly projecting ventrally, rounded at apex, medially with longitudinal concavity, constricted between coxae, widest in posterior third, with medium-sized, closely spaced punctures. **Mesoventrite** castaneous to piceous with scattered, medium-sized punctures. **Metaventrte** reddish-brown with a few scattered, small, shallowly impressed punctures; metanepisternum castaneous

with few small, shallowly impressed punctures along medial margin. **Legs** with procoxa red-brown with castaneous to piceous margins, meso- and metacoxae red-brown with piceous apex; protrochanter small, elongate, triangular, with castaneous to piceous margins, with approximately 10 short, erect setae on margin; meso- and metatrochanters medium-sized and triangular, with castaneous to piceous margins, with approximately 6 short, erect setae on margin; femora shorter than tibiae, thick, wider at apex than base, red-brown with small castaneous area at apex, with a few scattered, short, erect setae on dorsal and ventral surfaces; tibiae red-brown with small castaneous areas at apex, laterally narrow at base and gradually expanded to broader apex, sides and inner margin with long, erect, uniformly spaced setae, setae gradually becoming longer and more densely spaced towards apical margin, protibia with additional long setae along inner margin and at apex, inner apical margin with two small spurs, slightly curved, inner spur longer than outer spur, outer margin with three small apical spines, lateral protibial margin with one very small spine in apical third (Fig. 6A), meso- and metatibial spurs shorter, straight; tarsomeres piceous, tarsal formula 5-5-5, tarsomere 1 minute but discernible and fused to tarsomere 2, tarsomeres 2-5 with long, erect setae on ventral surface, denser on tarsomeres 2-4. **Abdomen** with all 5 ventrites castaneous, ventrites 1-4 each with small, densely spaced, well impressed punctures in basal two-thirds, apical third with punctures widely spaced, lateral margins impunctate; ventrite 5 with few scattered well impressed punctures centrally in apical two-thirds; pygidium red-brown, apex subacute, surface with scattered, short, erect setae, apical margin with dense, medium-length, erect setae. **Aedeagus** of cucujiform type with tegmen modified to form a sheath around median lobe, median lobe relatively straight in lateral view, weakly curved dorsally, apex tapered to ventrally directed, rounded tip (Figs. 5C, D).

Female (Figs. 2A, B). Overall length: 8.1 mm; HL: 2.3 mm, HW: 1.45 mm, PL: 1.7 mm, PW: 1.4 mm, EL: 4.45 mm, EW: 1.9 mm. **Abdomen** with ventrites 1-5 each with few scattered shallowly impressed punctures in central basal area only; pygidium uniformly curved. **Ovipositor** valvifer tubular, elongate, gonostylus with pair of apical setae (Figs. 5E, F).

Variation. Paratype male differs from holotype in the following: Overall length: 6.8 mm; HL: 1.8 mm, HW: 1.25 mm, PL: 1.4 mm, PW: 1.25 mm, EL: 3.7 mm, EW: 1.5 mm; elytra with rounded testaceous to castaneous area in apical fourth larger, extending from tip of yellow band along suture to apical margin and expanding to lateral margin; tarsomeres red-brown. The dorsal coloration of the

female paratype has the elytra with rounded castaneous area in apical fourth smaller (Figs. 2A, B).

Distribution. Known only from Ecuador. The collecting localities in Tungurahua and Napo provinces both lie in the tropical montane forests along the east slope of the Andes.

Etymology. ¡*Qué chucha!* is a colloquial expression used in Ecuador and other Spanish-speaking countries as an interjection of surprise in situations where someone is caught off guard or finds something unexpected. It is used here as a noun in apposition.

***Duponttiella unomas* Kippenhan, new species**

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(Figs. 3A-C, 4B, 5G, H, 6B)

Diagnosis. The elytral coloration, deep, elongate, densely spaced punctures of the head, pronotal disc with defined, closely spaced punctures, elytra with central basal area faintly punctate, and eyes flush with lateral contour of head will differentiate this species from *D. quechucha*.

Type Specimens. Holotype: Male, "Colombia: San Se- / bastian de Rábago / 1-10 IV.1968 / leg. B. Malkin // Sierra Nevada de / Santa Marta, / 2000 m // beaten ex dry / foliage // Inst. Zool. P.A.N. / Warszawa / 84/69 // [hand script] TROGOSITIDAE / ? *Duponttiella* sp. / not in coll. // ex FMNH // [red label] HOLOTYPE / *Duponttiella unomas* / M. Kippenhan" (FMNH). **Paratypes:** Sex undetermined, same data as holotype, except "[yellow label] PARATYPE / *Duponttiella unomas* / M. Kippenhan" (FMNH); sex undetermined, same data as holotype, except "[yellow label] PARATYPE / *Duponttiella unomas* / M. Kippenhan" (FSCA).

Description. Holotype. Male. Measurements: approximately 6.5 mm; HL: 1.6 mm, HW: 1.1 mm, PL: 1.4 mm, PW: 1.25 mm, EL: 3.5 mm, EW: 1.3 mm. **Head** uniformly black with velvety microsculpture (Fig. 4B); widest across eyes, slightly tapered to anterior and basal margins, length subequal to pronotum; frons and vertex shallowly convex; frontoclypeus bidentate; labrum black, short, broadly emarginate, with declivous anterior margin with short setae; mandibles black, stout, thick, base wide, with shallow, uniformly spaced medium-sized round punctures in basal portion becoming smaller, fainter, and more elongate at apex, with two teeth, both impunctate and slightly bent downward, second tooth small; head strongly, densely punctate, punctures deep, irregularly spaced, punctures from central vertex to frontoclypeal margin large, elongate, approximately two to three times as long as wide, medially directed more-or-less longitudinally, spaced very closely, some punctures in lateral



Fig. 3. *Dupontiella unomas*, new species, paratype (FSCA). A) Dorsal habitus, B) Lateral habitus, C) Labels. Scale bar is for A, B.



Fig. 4. Heads of adult *Dupontiella* species. A) *D. quechucha*, new species, holotype (FSCA), B) *D. unomas*, new species, paratype (FSCA). Images not to scale.

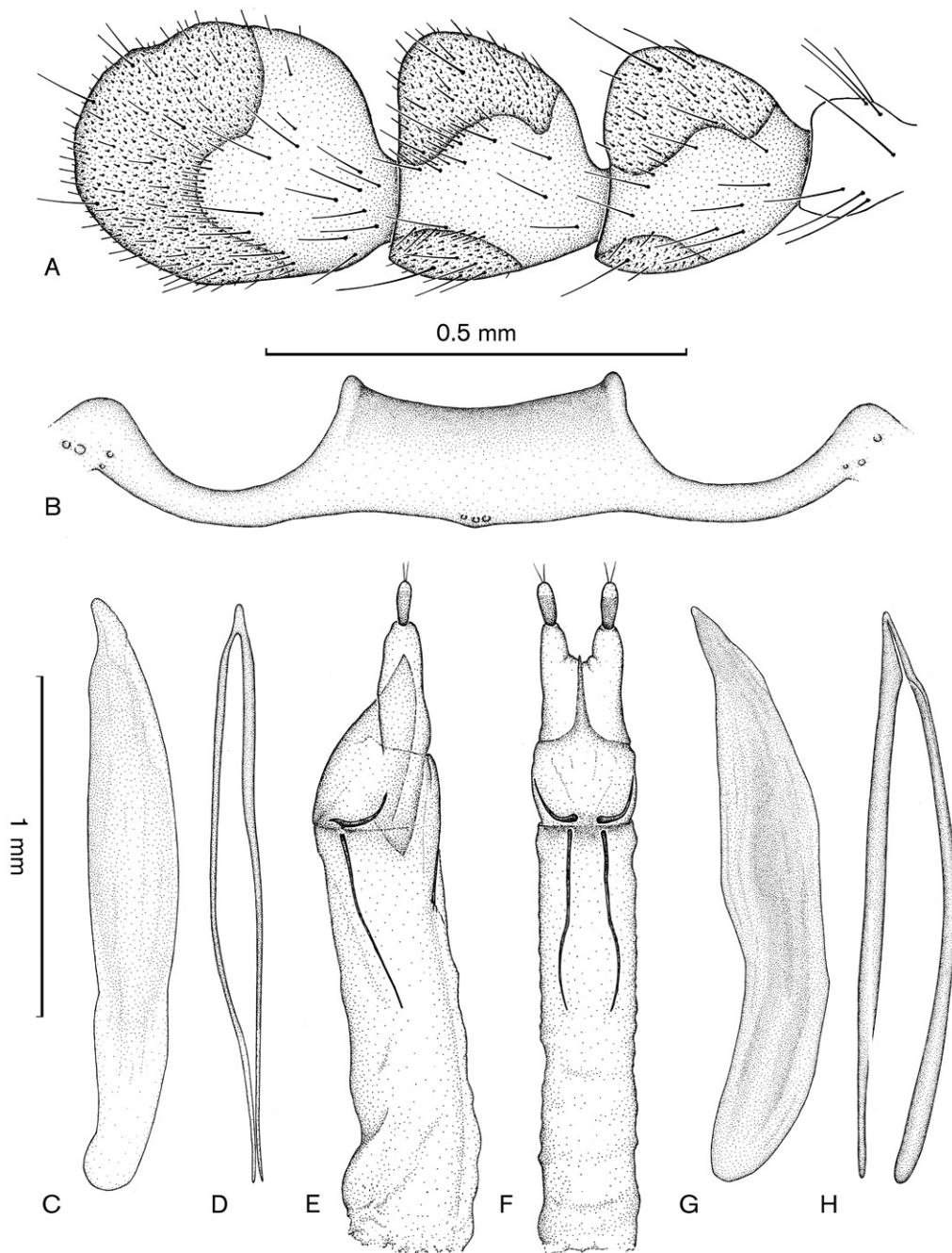


Fig. 5. Adult structures of *Dupontiella* species. *D. quechucha*, **new species**, holotype (FSCA): A) Left antennal club, B) Submentum, C) Median lobe, lateral view, D) Median lobe, dorsal view. *D. quechucha*, **new species**, paratype (FSCA): E) Ovipositor, lateral view, F) Ovipositor, dorsal view. *D. unomas*, **new species**, holotype (FMNH): G) Median lobe, lateral view, H) Median lobe, dorsal view. Scale bars: 0.5 mm (A, B); 1 mm (C–H).

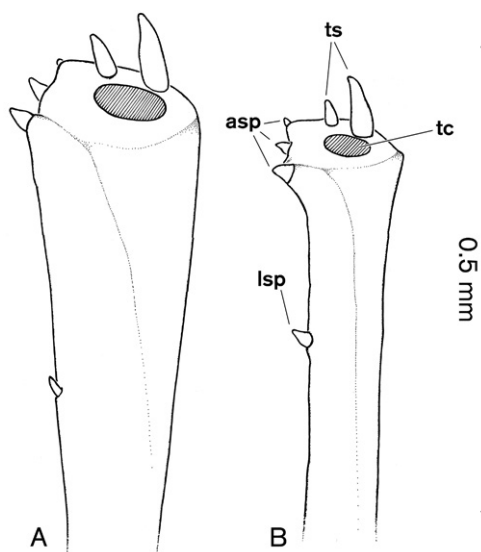


Fig. 6. Structures of the left protibia of *Dupontiella* species, ventrolateral view. A) *D. quechucha*, **new species**, B) *D. unomas*, **new species**. Abbreviations: ts—tibial spurs, asp—tibial spines, lsp—lateral spine, tc—tarsal cavity. Setae and tarsomeres omitted for clarity.

central area becoming longitudinally confluent; punctures on posterior vertex and along posterior margin shallow, slightly elongate, laterally spaced approximately twice diameter apart; punctures on anterior and dorsal margins of eyes deep, densely spaced, subcircular; posterior margin of eyes with deep subcircular punctures, remainder of area posterior to anterior margin of pronotum almost

impunctate; punctures on ventral surface unobserved; submentum unobserved; eye size medium, subovate, smoothly faceted, not breaking contour of head in dorsal view. **Antenna** long, apex of terminal antennomere extending beyond middle of pronotum, composed of 11 antennomeres with scattered long setae throughout; scape large, subcylindrical, castaneous; pedicel small, red-brown; antennomeres gradually longer from 3 to 5, gradually shorter and wider from 6 to 8, color becoming gradually darker from red-brown antennomere 3 to castaneous antennomere 11, antennomeres 9–11 with margins of lobes red-brown; antennomeres 9–10 asymmetrically bilaterally expanded and antennomere 11 unilaterally expanded to form stout, loose club, with densely spaced, minute setae on sensorial fields; sensorial fields on antennomeres 9–10 covering approximately 40% of surface, on antennomere 11 covering approximately 50% of surface; antennomere 11 subrectangular, slightly longer than wide. **Pronotum** uniformly black with velvety microsculpture; subquadrate, widest behind anterior margin, parallel in anterior half, strongly tapering inward in basal half towards posterior margin, anterior margin slightly sinuate, basal angles inconspicuous; subcylindrical, sides strongly rounded, lateral carina obsolete with faint lateral bead evident, anterior half of bead strongly curved downward, posterior half strongly curved upward; anterior margin of pronotum and prosternum continuous; disc with shallow circular punctures in posterior half medially, anterior half medially with shallow, slightly elongate punctures, anterolateral margins impunctate. **Scutellar shield** elongate, widest at base, gradually tapering to rounded apex, piceous. **Elytra** with

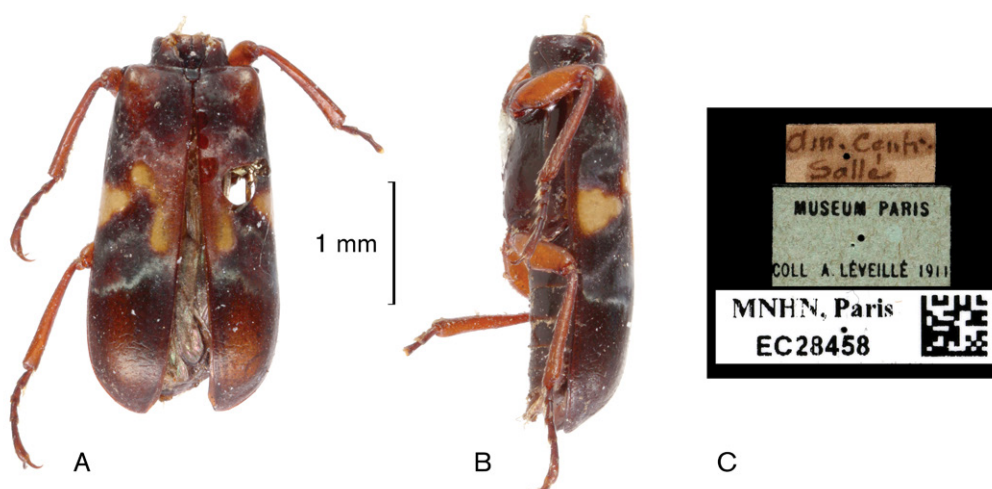


Fig. 7. *Dupontiella* sp. (MNHN). A) Dorsal habitus, B) Lateral habitus, C) Labels. Scale bar is for A, B. Images © 2024 MNHN/Christophe Rivier.

velvety microsculpture throughout; humerus with small, longitudinal castaneous area, middle with yellow band extending anteromedially, then extending obliquely posteriorly towards suture, with small circular castaneous area near apex, remainder of elytra black; elytral length slightly greater than head and pronotal length combined, width greater than width across eyes, in dorsal view slightly constricted near middle, widest at apical four-fifths; anterior fourth medially elevated in lateral view; humeral angles with projecting, broadly rounded anterior margin, lateral margin projecting outward and upward; apical margin broadly rounded; basal central area with shallow, faint rounded punctures, more-or-less serially arranged, apical fifth laterally with a few small, faintly impressed circular punctures; epipleuron complete, narrow; basal marginal bead of epipleuron extending slightly onto anterior basal margin of humerus. **Prosternum** with observable areas black with widely spaced, well impressed, medium- to large-sized circular punctures; notosternal suture short, wide, sinuate, length extends to approximately midpoint between anterolateral apex of coxal cavity and anterior margin of prosternum; hypomeron impunctate; intercoxal process strongly projecting ventrally, rounded at apex, surface unobserved. **Mesoventrite** black, surface obscured by mounting varnish. **Metaventrte** black, surface obscured by mounting varnish. **Legs** with procoxa piceous, mesocoxa unobserved, metacoxa piceous; pro- and mesotrochanters unobserved, metatrochanter small, red-brown; femora shorter than tibiae, thick, wider at apex than base, pro- and mesofemora piceous with red-brown apex, metafemur red-brown to castaneous with piceous apical margin, femora with a few scattered short, erect setae on dorsal and ventral surfaces; tibiae red-brown with small castaneous area at apex, laterally subparallel then abruptly expanded to broader apex, sides and inner margin with scattered long, erect uniformly spaced setae, setae gradually becoming longer and more densely spaced towards apical margin, protibia with additional long setae along inner margin and at apex, inner apical margin with two small spurs, inner spur longer than outer spur, outer margin with three small apical spines, lateral margin with spine (Fig. 6B); meso- and metatibial spurs shorter; tarsomeres castaneous, tarsal formula 5-5-5 with tarsomere 1 minute but discernible and fused to tarsomere 2, tarsomeres 2-5 with long, erect setae on ventral surface, denser on tarsomeres 2-4. **Abdomen** with all 5 ventrites castaneous, ventrites 1-4 each with densely spaced, well impressed punctures in basal two-thirds, apical third with punctures widely spaced, lateral margins impunctate; ventrite 5 with few scattered well impressed punctures centrally in apical two-thirds; pygidium evenly rounded, surface

with scattered short, erect setae, apex with dense, medium length setae and a few scattered long, erect setae. **Aedeagus** with median lobe curved dorsally, ventral margin relatively straight then angularly narrowed in basal third, apex tapered to ventrally directed, long, rounded tip (Figs. 5G, H).

Variation. Paratypes differ from holotype in the following: Overall length: 5.2–6.0 mm; HL: 1.5–1.7 mm, HW: 1.0–1.2 mm, PL: 1.15–1.40 mm, PW: 0.9–1.2 mm, EL: 2.8–3.6 mm, EW: 1.05–1.40 mm; femur of one paratype castaneous to red-brown and tarsomeres red-brown; one paratype with antennomere 11 subquadrate, slightly longer than wide.

Distribution. Known only from the type locality within the Sinú Valley dry forest biome in northern Colombia (Sánchez-Cuervo *et al.* 2012).

Etymology. The species name derives from the Spanish phrase *uno más*, meaning “one more”. It is used here as a noun in apposition.

Remarks. All three specimens are attached to mounting blocks. Due to the heavy application of varnish on the paratypes, especially around the abdomen, they were not removed from their mounting blocks. As a result, the punctuation of the ventrites could not be observed with certainty; thus, their sex is undetermined.

DISCUSSION

A single, incomplete specimen housed in the MNHN is the only other example of this genus the author was able to locate (Figs. 7A–C). Due to the absence of its head and pronotum, the specific identity of this specimen is impossible to determine. The fact that it exhibits broadly rounded elytral humeri and dorsal coloration different than *D. ichneumonoides* is an indication that it is not the specimen examined by Reitter (1876).

The following combination of character states makes *D. quechucha* and *D. unomas* readily separable from the remainder of the New World trogositid fauna: broad head with slightly convex vertex, without longitudinal sulcus on frons; first two antennomeres of the club asymmetrically bilaterally expanded with a unilaterally expanded terminal antennomere; pronotum strongly constricted basally, without distinct lateral carina; elytral humeri projecting anteriorly with lateral margin extending laterally and dorsally; epipleuron not or slightly extended to humeri; central basal area of elytra raised; microsculptured dorsal surfaces creating velvet-like appearance; and the unique elytral color pattern.

Generic Assignment. In his generic description, Spinola (1845b) characterized the tarsi as “...of five articles, equally free and independent; the first four approximately equal to each other...” as clearly

illustrated in a detailed view of *D. ichneumonoides*. However, as discussed, this morphological character is anomalous in the Trogossitidae, as the family otherwise exhibits a truncated first tarsomere fused to the second. Presuming that Spinola's (1845b) description and illustration accurately represent the actual type specimen of *D. ichneumonoides*, this striking difference—along with the fact that Spinola (1845b) himself was uncertain about the family-level placement—raises further questions about the placement of *Dupontiella* within the Trogossitidae. The fact that both *D. quechucha* and *D. unomas*, which appear morphologically most similar to *D. ichneumonoides*, exhibit a truncated and fused first tarsomere, suggests that their placement within *Dupontiella* is provisional and, in fact, they may not be congeneric. Unfortunately, due to the uncertain repository of the *D. ichneumonoides* type specimen, assuming it still exists, the author considered four options:

Option 1. Create a new genus within the Trogossitidae: Trogossitinae for the two taxa described above and remove *Dupontiella* from the family, relegating it *incertae sedis* within the Cleroidea. This option was rejected on the basis it would create taxonomic instability within the Cleroidea and simply be deflecting responsibility for unraveling this issue.

Option 2. Place the two taxa described above in *Dupontiella*, acknowledging the potential morphological differences in tarsomere structure but considering the possibility these characters were misinterpreted by Spinola (1845b). This option was the one chosen on the basis of being the least disruptive by avoiding unnecessary complications or changes in the higher classification of the Cleroidea.

Option 3. Consider the type of the type species *D. ichneumonoides* lost and designate a neotype with, out of necessity, characters that do not match those of the original description. This option was rejected on the basis that while the *International Code of Zoological Nomenclature* makes it technically admissible, it is inadvisable for several reasons, primarily because the new taxa described do not match key morphological characters of the species.

Option 4. Refrain from describing the new taxa pending discovery of the *D. ichneumonoides* type. This option was rejected on the basis that it fails to advance our understanding of cleroid biodiversity and would not serve to highlight this urgent but persistent issue in their classification.

Given these complexities, retaining *Dupontiella* in the Trogossitidae while also refraining from establishing a new genus for *D. quechucha* and *D. unomas* is a conservative and judicious decision. Additionally, it reflects the author's observations that uncertain generic boundaries are not unprecedented within the Neotropical Trogossitinae and that

further identification and delineation of character states is needed. While a definitive conclusion on the placement of *Dupontiella*, *D. quechucha*, and *D. unomas* can only be made once the type specimen of *D. ichneumonoides* or additional unambiguous specimens of *D. ichneumonoides* and *D. fasciatella* are located, this research illustrates some of the exciting challenges this small family of beetles offers.

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