



## A new species of *Ontherus* Erichson, 1847 (Coleoptera: Scarabaeidae: Scarabaeinae: Coprini) and new distributional records of *Cryptocanthon humidus* Howden, 1973 (Coleoptera: Scarabaeidae: Scarabaeinae: Deltochilini) for Ecuador

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### Abstract

A new species of *Ontherus* Erichson, 1847 (Coleoptera: Scarabaeidae: Scarabaeinae: Coprini) from Loja province (southern Ecuador) is described. The new species is putatively assigned to the subgenus *Ontherus*. An updated identification key is provided for the Ecuadorian species of *Ontherus*. Additionally, *Cryptocanthon humidus* Howden, 1973 (Coleoptera: Scarabaeidae: Scarabaeinae: Deltochilini) is registered for the first time in Ecuador.

**Key words:** Andean dry forest, distribution, taxonomy

### Introduction

The Neotropical genus *Ontherus* Erichson, 1847 (Coleoptera: Scarabaeidae: Scarabaeinae: Coprini) currently comprises 60 species, with geographic distribution ranging from Mexico to Argentina, from 50–3500 m, with most species encountered in the Amazonian forests, montane cloud forests, and high montane forests of the Andean region (Génier 1996, 1998; Chamorro *et al.* 2019). In the past decade, a single species of *Ontherus* has been described from the department of Antioquia, Colombia (González-Alvarado & Medina, 2015).

In Ecuador, a total of 16 species of *Ontherus* are recorded: 13 species belong to the subgenus *Ontherus* (*Caelontherus*) Génier, 1996 (distributed in humid, cloud, and high montane forests in Coastal, Andean, and Amazon regions); and only three species from the nominal subgenus *Ontherus* (*Ontherus*) (distributed explicitly in the humid and cloud forests in the Andean and Amazon regions (Génier 1996; Chamorro *et al.* 2019).

In this work, we describe *Ontherus* (*O.*) *araujoi* **new species**, a forest dweller species restricted to the Pacific region of South America (Ecuadorian province; see Morrone 2014). We also provide a diagnosis and an updated key to separate this species from all other species found in Ecuador. Furthermore, *Cryptocanthon humidus* Howden, 1973 (Coleoptera: Scarabaeidae: Scarabaeinae: Deltochilini) is recorded for the first time from Ecuador, increasing the list of dung beetle species to 237.

Chamorro *et al.* (2019) recorded 223 Scarabaeinae species from Ecuador, but this number has recently increased to 235 due to: (a) the description of seven new dung beetle species (Silva & Valois 2019; Rossini & Vaz-de-Mello 2020; González-Alvarado & Vaz-de-Mello 2021; Chamorro *et al.* 2021); (b) four revalidated species (Montoya-Molina & Vaz-de-Mello 2019; Moctezuma & Halffter 2021; Moctezuma *et al.* 2021); (c) three new records (Silva & Génier 2019; Rossini 2021; Valois *et al.* 2023); and (e) two species erroneously recorded (Moctezuma *et al.* 2021; Moctezuma & Halffter 2021).

## Material and methods

The specimens examined in this research, are deposited in the following institutions. The name of the curator/ collection manager is given in parenthesis:

**CMNC:** Canadian Museum of Nature, Gatineau, Quebec, Canada (François Génier).

**CONRAZ:** Colección Nacional de Referencia de Artrópodos de importancia en Zoonosis, Quito, Ecuador (Sandra Enríquez).

**MEPN:** Museo de la Escuela Politécnica Nacional, Quito, Ecuador (Adrián Troya).

**PSO-CEUN:** Colección Entomológica de la Universidad de Nariño. Pasto, Nariño, Colombia (Mauricio Rodríguez & Guillermo Castillo).

The external and genital morphology of the four adult specimens (two males and two females) were examined. Terminologies of the external and genital morphology are based on Génier (1996, 2019). It should be noted that the “sigmoid sclerite” of the endophallus in Génier (1996) correspond to the “fronto-lateral peripheral sclerite (FLP)” of Tarasov and Solodovnikov (2011) and Tarasov & Génier (2015). The structures “fronto-lateral peripheral sclerite” (FLP), “axial sclerite” (A), and “subaxial sclerite” (SA) are here combined with the term endophallite to conform with Génier (2019).

The morphology of the specimens was studied using a LEICA S8APO stereomicroscope (10–80.0×). Pictures of the new species were taken with a Canon 6D camera with a Canon MP65 1.5X lens. Photographs of the morphological traits and measurements were taken using a BWHC-4K16MPA UHD camera attached to the stereomicroscope. Images were stacked using Helicon Pro software (Soft Helicon 7.6.3).

For the dissection of the aedeagus and study of the endophallites, the specimens were immersed in hot water (75 °C) for 10 minutes. Then, the extraction of the genitalia followed the methodology proposed by Medina *et al.* (2003). Strongly sclerotized parts were soaked in a 15% potassium hydroxide solution for 3–5 minutes and neutralized in a 15% acetic acid solution. Afterwards, genitalia were placed in glycerine-filled vials, which were pinned with the specimens.

Distribution data of *Ontherus araujo* and *Cryptocanthon humidus* were taken directly from specimens labels, and from published literature. Distribution maps were made and processed with the ArcGIS 10.2 program (E300 License 04/26/2013).

The name-bearing type data are reported verbatim with “||” to separate each text label and “|” to separate each text line. If not stated otherwise, labels are printed on white card paper.

The new *O. araujo* was identified and described according to the phylogenetic species concept, which defines a species as a group of individuals that share a common ancestor and distinguished from other organisms that do not share that ancestor (Wheeler & Platnick 2000).

## Results

### *Ontherus (Ontherus) araujo* Chamorro, Lopera, & Génier, new species

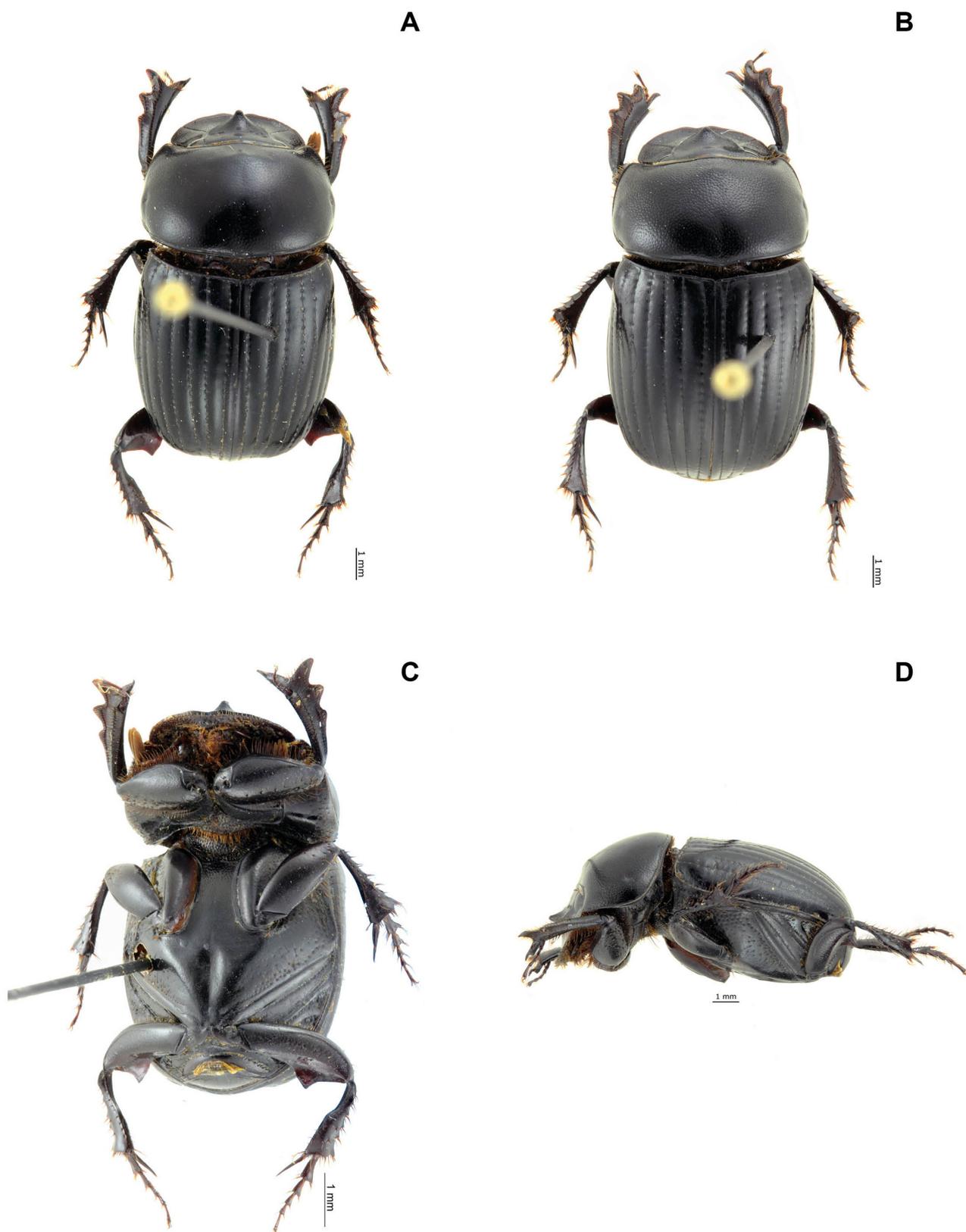
(Figs. 1A–D, 2A–C, 4)

**Holotype.** Male deposited in MEPN; labeled as: || ECU: LOJA: Catacocha | Paltas, 4° 02' 16.34" S | 79° 48' 01.76" W, 1150 m | 8.II.2020, W. Chamorro | Pitfall human faeces || ; || HOLOTYPE ♂ | *Ontherus* | *araujo* | dés. Chamorro, Lopera & | Génier, 2024 || red card.

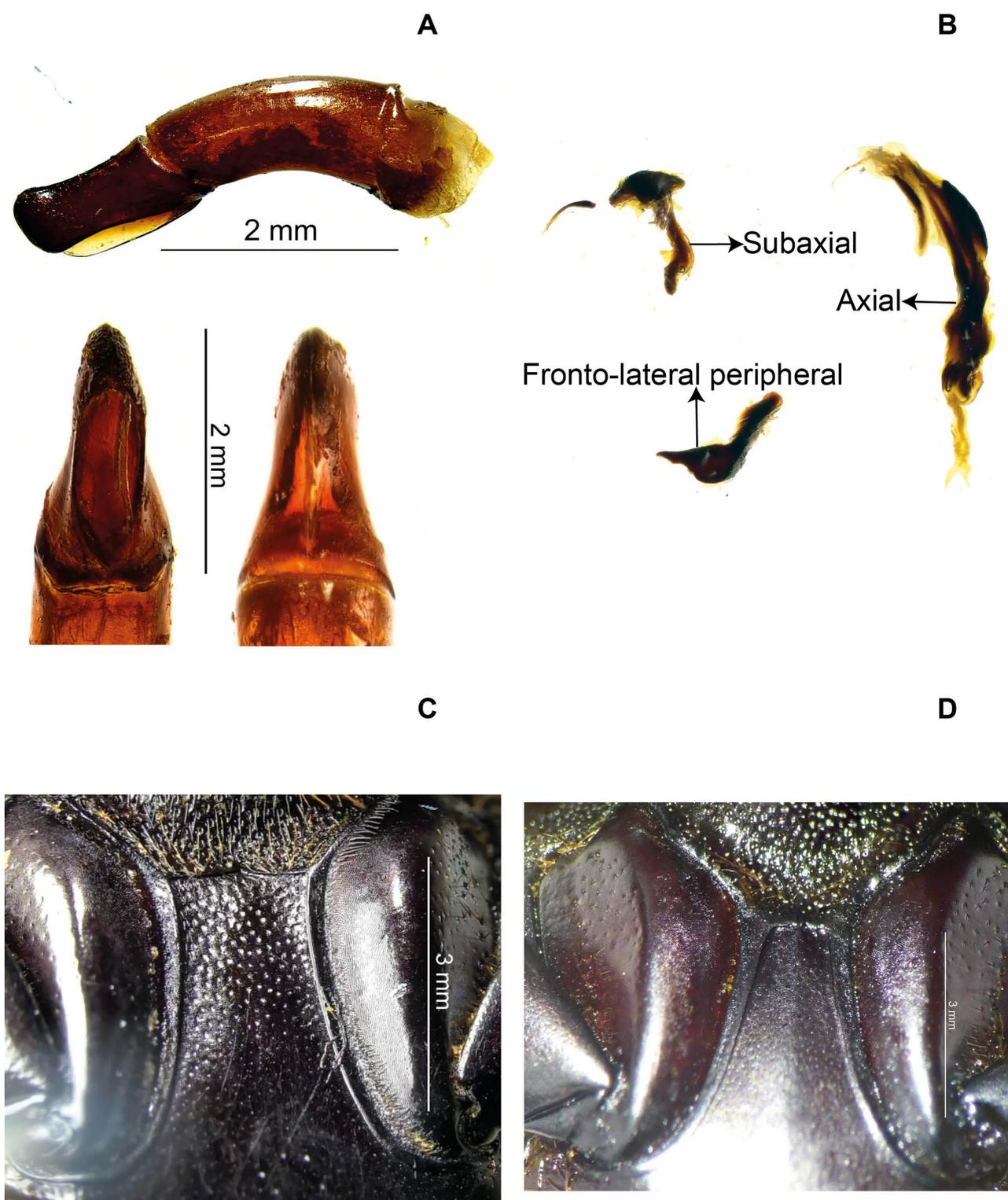
**Paratypes.** 1 male and 1 female deposited in MEPN; same data as holotype. 1 male deposited in CMNC; same data as holotype.

**Etymology.** The name “*araujo*” is an eponym for Pablo Araujo, biologist-entomologist, founder of the “Entomological section Escuela Politécnica Nacional” (Quito Ecuador) and a great researcher of Carabidae beetles.

**Diagnosis.** The male of *O. araujo* is similar to *Ontherus azteca* Harold, 1869 and *Ontherus cambeforti* Génier, 1996, but it differs by the following characteristics: (1) apical tooth directed forward (anteriorly) and with the apex weakly flexed downward (Figs. 1A, C); (2) protibial spur absent (Figs. 1A, C); (3) metafemurs with posteromedial triangular process (Figs. 1A, C, D), never on posterodorsal edge as *O. azteca* (Fig. 3A) and *O. cambeforti*; (4) parameres (in lateral view) with rounded apices (Fig. 2A); (5) frontolateral peripheral endophallite triangular shaped (Fig. 2B).



**FIGURE 1.** *Ontherus araujoii* new species. **A**, *Ontherus araujoii* (male, dorsal view); **B**, *Ontherus araujoii* (female, dorsal view); **C**, *Ontherus araujoii* (male, ventral view); **D**, *Ontherus araujoii* (male, lateral view).



**FIGURE 2.** *Ontherus* diagnostic characters. **A**, *Ontherus araujoii* new species, aedeagus; **B**, *Ontherus araujoii*, endophallites. **C**, *Ontherus araujoii*, mesometasternal suture; **D**, *Ontherus compressicornis* Luederwaldt, 1931, mesometasternal suture.

**Description.** Male (Fig. 1A): length: 11.2–12.2 mm, width 5.7–6.0 mm. Female (Fig. 1B): length 10.5–13.2 mm, width: 5.0–6.0 mm. **Colour.** Body dark reddish brown, pubescence fulvous, length 10.5–13.2 mm. **Head** (Fig. 1A, C). Anterior edge arcuate, weakly upturned, slightly emarginate medially, clypeogenal junction straight. Clypeus transversely wrinkled on anterior half, either with confluent and feeble punctures on posterior half. Clypeofrontal suture arcuate, feebly carinate, with small and rounded conical process medially. Genal surface with

punctures confluent throughout. Vertex finely and shallowly punctate on anterior two-thirds, posterior third smooth. **Pronotum** (Fig. 1A). Transverse wider than long  $W/L = 2.0$ ; anterior edge narrowly membranous and almost straight behind head insertion. Disc slightly declivous on anterior fifth behind head insertion, and almost convex in lateral view; punctures rounded, moderate in size on disc and lateral swellings, slightly larger and denser along anterior and lateral declivities, not confluent on anterior angles. **Elytra** (Fig. 1A). Subquadrate,  $L/W = 1.2$ . Striae moderately wide and impressed on disc and apical declivity, punctures rounded, deeper than stria, approximately 1.2 times as wide as stria and separated by 1–2 diameters on disc and apical declivity, slightly encroaching on intervals. Interstriae slightly convex, surface feebly punctate, with a trace of alutaceous microsculpture. **Thoracic sterna** (Fig. 1C). Proepisternum with posterolateral portion densely pubescent and finely alutaceous throughout. Prosternum behind procoxa finely pubescent, setae apposed, with a brush of longer setae medially on posterior edge. Mesosternum (Figs. 1C, 2C) with feeble and alutaceous microsculpture, surface slightly and transversely impressed on disc, with rounded punctures moderate in size, coarse and dense throughout, pubescence fine and short throughout. Mesepisternum regularly punctate, punctures of different sizes, rounded and umbilicate, surface finely alutaceous, strongly and sharply carinate parallel to posterior edge. Metasternal disc with fine and rounded punctures, surface widely and somewhat deeply sulcate; lateral lobes on anterior half with punctures rounded and umbilicate, posterior half with punctures rounded, surface weakly alutaceous on anterior half, pubescence long and obliquely oriented; median lobe of mesosternon proportion (length/medial width) = 1.6, lateral margins almost parallel on anterior half, slightly convergent on posterior half, lateral margins narrow throughout and anterior angles of lateral margins rounded internally; surface finely punctate, anterior-most punctures slightly larger and finely setiferous; surface between punctures finely alutaceous anteriorly; junction with mesosternum angulate medially, finely carinate throughout, not produced into short carina longitudinally on mesosternum. **Legs** (Fig. 1A–C). Protibia quadridentate, apical tooth projecting anteriorly and with the apex weakly flexed down, unmodified in females; ventromedial carina lacking intervening setae on basal third in both sexes; apical spur absent in males, in females recurved and weakly bent down apically; metafemurs (Figs. 1A, C) with triangular projection on posterodorsal and distal edge, posteroventral surface sulcate, sulcus extending anteriorly at the apex and apicoventral surface with shallow deep impression in males, absent in females. Metatibiae (Fig. 1A, C–D) with internal edge slightly lobate on basal half in males, simple in females. **Abdomen** (Fig. 1C). Sternites 2–5 punctate laterally, anterior edge with a row of setiferous punctures laterally, the suture between sternites 5–6 deeply and sharply sulcate laterally. **Pygidium** (Fig. 1C–D). width/length = 2.0 in males or 2.1 in females, punctures small, evenly distributed, surface glossy; apical margin clearly delimited in males, basal portion slightly sulcate along margin medially. **Male genitalia** (Fig. 2A). Phallobase approximately 2.0 times as long as parameres, which is convex apically. Parameres in lateral view elongate and with apex rounded, ventral portion slightly concave, deeply notched basally, and posteroventral portion long. **Endophallus**. Fronto-lateral peripheral endophallite, axial endophallite, and subaxial endophallite as in Fig. 2B (see arrows).

**Sexual dimorphism.** Females (Fig. 1B) can be distinguished from males by the following characteristics: 1) length less than 11 mm; 2) apical tooth not forwardly directed; 3) protibial spur present; and 4) metafemur without triangular process.

**Remarks.** *Ontherus araujoi* is distributed in Ecuador (with the type locality 50 km north of the border with Peru). It inhabits dry montane forest, in the southern Ecuadorian Andes (Sierra, 1999) over 1000 m (Fig. 4). According to the biogeographic regionalization proposed by Morrone (2014), this new species occurs in the “Western Ecuador Province”.

Females similar to the *O. appendiculatus* species group (see Génier, 1996), but differ in the vertex punctate on all area of the head (with punctures transverse along the posterior surface). However, the shape of the parameres looks similar to the species included in the *O. alexis* species group of the subgenus *Caelontherus*. We will keep this question open for now and resolve the issue when additional specimens are studied.

## Key to species of *Ontherus* from Ecuador

Modified from Génier (1996).

1. Mesometasternal suture angulate medially (Fig. 2C) (if junction appears straight then clypeofrontal suture carinate); median lobe of metasternum marginate anteriorly, similar to coxal margin, margin rarely atrophied; in some specimens, anterior edge lacks margin but anterior edge raised higher than mesosternum. Species usually restricted to lower elevations from 150–1200 m (subgenus *Ontherus*) (see Figs. 1A–D, 3A–C for all species). . . . . 14

- 1'. Mesometasternal suture straight (Fig. 2D), in some specimens broadly arcuate, never angulate medially; median lobe of metasternum usually lacks margin anteriorly. Clypeofrontal suture always tuberculate medially. Species usually restricted to higher elevations from 150–3400 m (subgenus *Caelontherus*) . . . . . 2
2. Protibia with three teeth in males and four in females; male secondary sexual characters always located on head and pronotum; metafemur not modified; female head with pair of closely set tubercles or transverse horn (exceptionally in females of *O. compressicornis* Luederwaldt, 1931 process appears conical, but then minimum width of median lobe of mesosternum subequal to half maximum width of mesofemur) . . . . . 3
- 2'. Protibia with four teeth in males and females; male secondary sexual characters displayed in the shape and orientation of apical tooth of protibia, and/or shape of metafemur, or rarely on pronotal disc if apical tooth of protibia is similar to that of female; female with conical cephalic process or with clypeofrontal carina widely interrupted medially . . . . . 9
3. Anterior portion of median lobe of metasternum declivous on most of width; without vestigial longitudinal carina or sulcus medially; elytral striae with punctures simple on disc, punctures less than twice the width of connecting striae, punctures rarely deeper than connecting stria . . . . . 4
- 3'. Anterior portion of median lobe of metasternum usually marginate, at least laterally; if anterior portion largely declivous, then usually with vestigial longitudinal carina or sulcus medially. Elytral striae with punctures rounded, impressed, usually umbilicate on disc, punctures more than twice width of connecting striae . . . . . 6
4. Elytral striae similarly impressed on disc and apical declivity, feebly impressed on apical callus; evergreen lower montane forests, and montane cloud forests (Andean region) . . . . . 5
- 4'. Elytral striae more deeply impressed on apical declivity than on disc, normally impressed on apical callus; lowland evergreen forests of the Amazon region at around 230 m (Orellana) . . . . . *Ontherus (Caelontherus) tenuistriatus* Génier, 1996
5. Inner edges of pronotal carinae raised higher than outer edges; distance between inner edges of carinae longer than width of carina in larger males; evergreen lower montane forests, and montane cloud forests (Andean region in from 1540–2550 m) (Morona Santiago, Napo, Pastaza, Sucumbíos, Tungurahua and Zamora Chinchipe). . . . .  
. . . . . *Ontherus (Caelontherus) incisus* (Kirsch, 1871)
- 5'. Inner edges of pronotal carinae lower than lateral edges; distance between inner edges shorter than width of carina in larger males; montane cloud forests of the Andean region at 1800 m (Sucumbíos) . . . . .  
. . . . . *Ontherus (Caelontherus) howdeni* Génier, 1996
6. Male pronotum with transverse carina on each side of midline, carinae laterally reduced or much lower than internally, sometimes with small supplementary tubercle medially, or with at least single central minute tubercle in smaller individuals; female pronotum with three tubercles or single median tubercle in smaller individuals. . . . . 7
- 6'. Male pronotum with four tubercles, lateral tubercles much larger than inner tubercles; if pronotum has transverse carinas on each side of midline, lateral portion always distinctly raised; smaller individuals with two minute tubercles medially, sometimes distal tubercles present, small; female pronotum with four tubercles, sometimes connected with carina, or with two low tubercles medially in smaller individuals . . . . . 8
7. Median lobe of metasternum with at least few setae similar to those on mesosternum, especially anteriorly, along mesocoxa; median lobe of metasternum completely marginate anteriorly, margin wide; coastal lowland evergreen forests and coastal evergreen foothill forests from 200–1250 m (Carchi, Imbabura, El Oro, Esmeraldas, Pichincha, Santo Domingo de los Tsáchilas) . . . . . *Ontherus (Caelontherus) trituberculatus* Balthasar, 1938
- 7'. Median lobe of metasternum with minute, appressed pubescence only, setae much finer than those on mesosternum; median lobe of metasternum with anterior margin atrophied medially; coastal evergreen foothill forests from 420–1400 m (El Oro, Santo Domingo de los Tsáchilas) . . . . . *Ontherus (Caelontherus) pilatus* Génier, 1996
8. Male pronotum with transverse carina on each side of midline, carinae approximate, covering almost entire width of pronotum in larger individuals; carinae reduced to two transverse swellings with inner portion slightly tuberculate in smaller individuals; male cephalic horn laterally compressed and truncated apically in larger individuals; female with lateral portions of pronotum with punctures moderately large, separated by less than their diameter; evergreen foothill forests (coastal region from 550–1300 m), evergreen lower montane forests, and montane cloud forests (Andean region from 1550–2300) (Cañar, Carchi, Cotopaxi, Imbabura, Loja, Pichincha, Santo Domingo de los Tsáchilas). . . . .  
. . . . . *Ontherus (Caelontherus) compressicornis* Luederwaldt, 1931
- 8'. Male pronotum with four tubercles, outer tubercles much larger than inner tubercles, reduced to swellings in smaller individuals; male cephalic horn acuminate or forked apically in larger individuals; female with lateral portion of pronotum with punctures minute, only slightly larger on anterior angles; lowland evergreen forests and evergreen foothill forests of the Amazon region from 150–1300 m (Loja, Morona Santiago, Napo, Orellana, Pastaza, Sucumbíos, Tungurahua, Zamora Chinchipe) . . . . .  
. . . . . *Ontherus (Caelontherus) diabolicus* Génier, 1996
9. Median lobe of metasternum with conspicuous setae similar to those on lateral lobes; male protibia with apical tooth triangular, similar to penultimate tooth in aspect; females with anterior angles of pronotum granulate. . . . . 10
- 9'. Median lobe of metasternum lacking conspicuous setae or setae shorter than those on lateral lobes; male protibia with apical tooth slender and pointing forward; females with anterior angles of pronotum punctate . . . . . 12
10. Genal surface with at least some coarse rugose areas; length less than 12 mm; lowland evergreen forests and evergreen foothill forests of the Amazon at around 220 m (Orellana) . . . . . *Ontherus (Caelontherus) laminifer* Balthasar, 1938
- 10'. Genal surface smooth, with at most a few scattered, weakly impressed punctures anterior to the eye; length greater than 17 mm . . . . . 11
11. Elytral striae distinctly crenulate; montane cloud forests and the evergreen high montane forests of the Andean region from 2700–2835 m (Morona Santiago, Napo, Pastaza) . . . . . *Ontherus (Caelontherus) hadros* Génier, 1996

- 11'. Elytral striae not crenulate, lacking distinct puncture; montane cloud forests of the Andean region at around 2600 m (Pichincha) . . . . . *Ontherus (Caelontherus) magnus* Génier, 1996
12. Median lobe of metastemum marginate anteriorly, similar to lateral edge; elytra strongly alutaceous; montane cloud forests and the evergreen high montane forests of the Andean region from 2400–3000 m (Azuay, Cañar, Chimborazo, Napo, Pichincha, Sucumbíos) . . . . . *Ontherus (Caelontherus) aequatorius* Bates, 1891
- 12'. Median lobe of metastemum declivous anteriorly, margin atrophied medially; elytra smooth, at most slightly alutaceous. . . . . 13
13. Elytral striae with punctures deeply foveolate on apical declivity (especially striae 1 and 2); metacoxa with median sulcus foveolate; montane cloud forests and evergreen high montane forests of the Andean region from 2000–3400 m (Carchi, Napo, Sucumbíos, Tungurahua, Zamora Chinchipe) . . . . . *Ontherus (Caelontherus) politus* Génier, 1996
- 13'. Elytral striae with punctures similarly impressed on apical declivity and disc; metacoxa with median sulcus not foveolate; high montane forests of the Andean region (Carchi) . . . . . *Ontherus (Caelontherus) brevicollis* Kirsch, 1871
14. Clypeofrontal suture tuberculate medially . . . . . 15
- 14'. Clypeofrontal suture with strong subquadrate carina (Figs. 3B, 4); lowland evergreen forests and evergreen foothill forests of the Amazon region from 250–1020 m (Loja, Napo, Morona Santiago, Orellana, Zamora Chinchipe) . . . . . *Ontherus (Ontherus) edentulus* Génier, 1996
15. Male protibia with apical spur (Fig. 3A, C); parameres tapered or rounded distally in lateral view; female head with vertex coarsely granulopunctate (in *O. pubens* Génier, 1996) or weakly punctate (except on small area posteriorly in *O. azteca*); Amazonian region . . . . . 16
- 15'. Male protibia lacking apical spur (Fig. 1A, C); parameres distinctly widening distally in lateral view (Fig. 2A); female head with vertex punctate throughout (punctures transverse along posterior surface); matorral dry montane forests of the Andean region at around 1150 m (Ecuador: Loja) . . . . . *Ontherus (Ontherus) araujo* new species
16. Posterior edge of metacoxa finely serrate (character best seen when metacoxa rotated forward to expose posterior margin); most punctures on lateral lobes of metasternum rounded, clearly delimited; lowland evergreen forests and evergreen foothill forests of the Amazon region from 250–1200 m (Napo, Orellana, Pastaza, Sucumbíos) . . . . . *Ontherus (Ontherus) azteca* Harold, 1869
- 16'. Posterior edge of metacoxa without fine serration; most punctures of lateral lobes of metasternum weakly-defined posterolaterally; lowland evergreen forests and evergreen foothill forests of the Amazon region from 150–1200 m (Loja, Morona Santiago, Napo, Orellana, Pastaza, Sucumbíos, Zamora Chinchipe) . . . . . *Ontherus (Ontherus) pubens* Génier, 1996

## New record of *Cryptocanthon* Balthasar, 1942 for Ecuador

### *Cryptocanthon humidus* Howden, 1973

(Figs. 3D, 4)

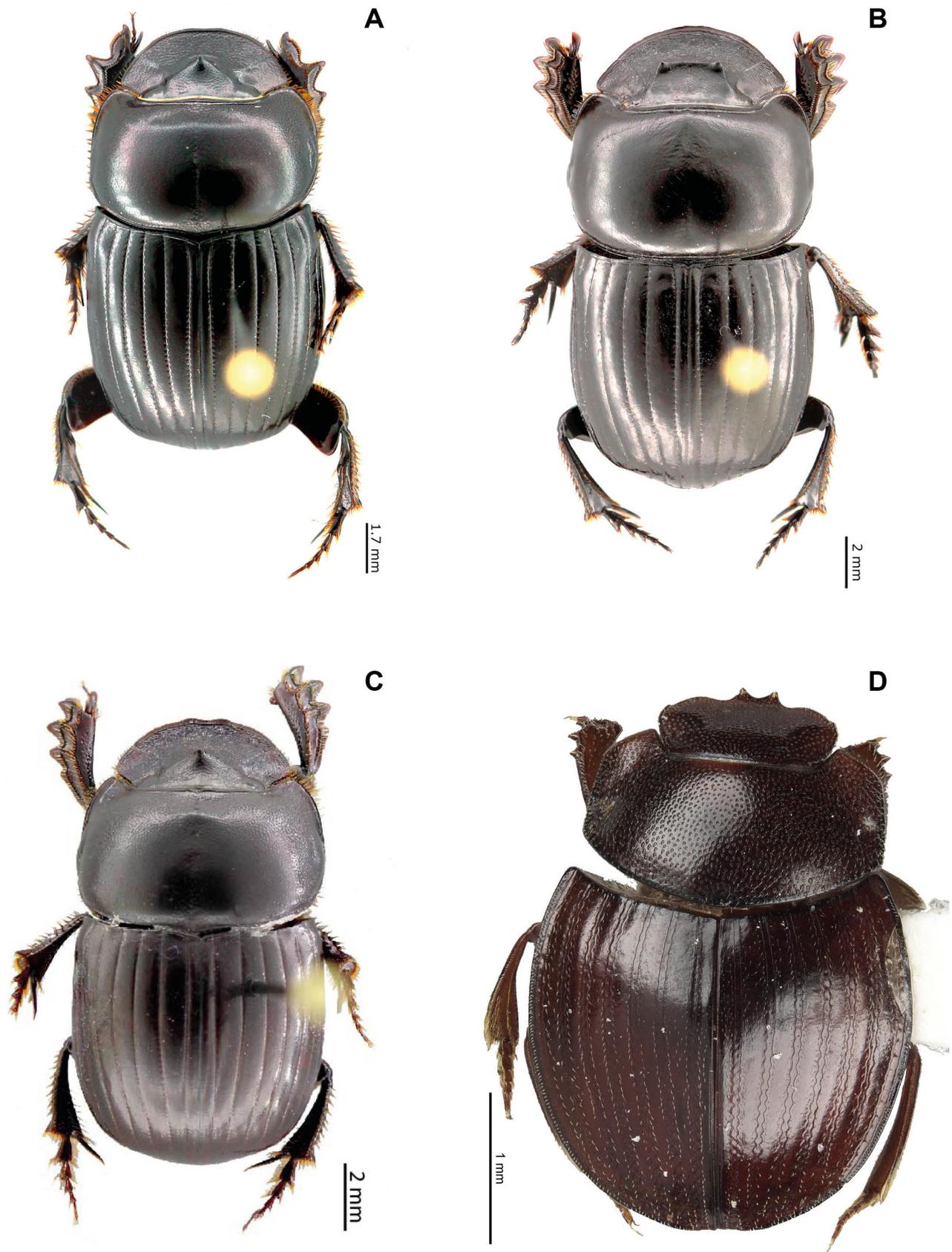
**Holotype.** Deposited in the CMNC (Cook 2002). Locality: Colombia, 1200' [= 365 m], Anchicaya Dam, 70 km east of Buenaventura, Valle, Colombia.

**New records based on examined material. COLOMBIA:** NARIÑO: La Llanada, El Vergel, 1549 m (1°3'39.70"N, 77°40'5.80"W); human dung; D. Martínez; 24.xii.2011 (1 specimen, CEUN-PSO). Barbacoas, Reserva Nacional Río Ñambi, 1350 m (1°18'0.00"N, 78°4'59.88"W); human dung; A. Lopera and D. Martínez; 8.iii.2012 (59 specimens, CEUN-PSO). Barbacoas, Reserva Nacional Río Ñambi, 1350 m (1°18'0.00"N, 78°4'59.88"W); fungus; A. Lopera and D. Martínez; 8.iii.2012 (1 specimen, CEUN-PSO). **ECUADOR:** CARCHI: Chical, sector de la mina Magdalena, 1500 m (0° 54'45.93"N, 78°10'21.84"W); human dung; Y. Criollo; 6.ii.2020 (2 males, 1 female, CONRAZ).

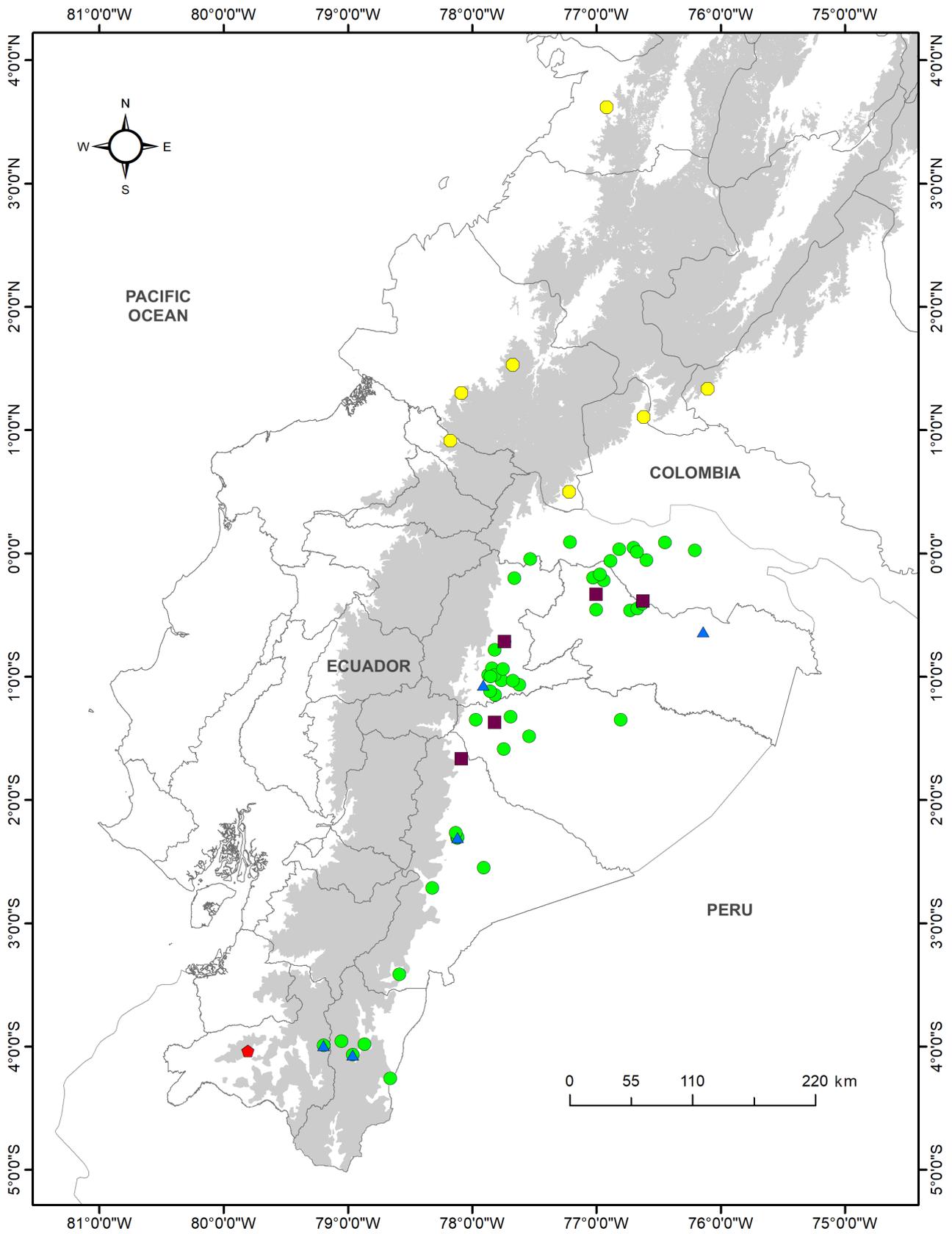
**Literature records. COLOMBIA:** CAQUETA: San José de Fragua, Vereda la Esmeralda, Alto del río Yurayaco (1°20'N, 76°6'W, 1500 m (Arias-Buriticá & Medina 2014: 178). NARIÑO: Ipiales, Territorio Kofán, Cuenca alta de los ríos Rumiayaco-Ranchería (0°3'N, 77°13'W), 1500 m (Arias-Buriticá & Medina 2014: 178). PUTUMAYO: Mocoa, Serranía de los Churumbelos, Vereda el Zarzal (1°6'21.3"N, 76°36'52.7"W), 860 m (Arias-Buriticá & Medina 2014: 178). VALLE DEL CAUCA: Anchicaya Dam, 70 km east of Buenaventura, 1200' [= 365 m] (Cook 2002: 68). **PANAMÁ:** Panamá, Chepo Carti Road, 400 m (Cook 2002: 68).

**Remarks.** In Ecuador, *C. humidus* inhabits coastal evergreen foothill forests (Sierra *et al.* 1999) below 1500 m, although in Colombia, there are records of this species from 500–1540 m on the foothills of the western and eastern mountain ranges (Fig. 3). Biogeographically it is distributed in the Cauca Province (Morrone 2014).

Seven species of *Cryptocanthon* Balthasar, 1942 are now known from Ecuador: *C. curticrinis* Cook, 2002; *C. genieri* Cook, 2002; *C. humidus* (new country record), *C. napoensis* Cook, 2002; *C. otonga* Cook, 2002; *C. paradoxus* Balthasar, 1942, and *C. urguensis* Cook, 2002 (Cook 2002; Chamorro *et al.* 2019).



**FIGURE 3.** *Ontherus* and *Cryptocanthon* species. **A**, *Ontherus azteca* Harold, 1869, male in dorsal view; **B**, *Ontherus edentulus* Génier, 1996, female in dorsal view; **C**, *Ontherus pubens* Génier, 1996, male in dorsal view; **D**, *Cryptocanthon humidus* Howden, 1973, male in dorsal view.



**FIGURE 4.** Distribution of *Ontherus araujo* new species (red pentagon); *Ontherus azteca* Harold, 1869 (purple square); *Ontherus edentulus* Génier, 1996 (blue triangle); *Ontherus pubens* Génier, 1996 (green circle); and *Cryptocanthon humidus* Howden, 1973 (yellow octagon).

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