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Description of three new Acanthocinini
(Coleoptera: Cerambycidae: Lamiinae) species from Ecuador

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Description of three new Acanthocinini (Coleoptera: Cerambycidae: Lamiinae) species from Ecuador

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Abstract. Three new species of Acanthocinini (Coleoptera: Cerambycidae: Lamiinae) are described from Napo province, Ecuador: *Anisopodus micromaculatus* **new species**; *Parabaryssinus katerinae* **new species**; and *Paracleodoxus minutus* **new species**. A key to species of *Paracleodoxus* Monné and Monné (2010) is provided.

Key words. Andes, Neotropical region, South America, taxonomy, biodiversity, long-horned beetles.

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Introduction

The study of specimens collected by the first author during his stay in Ecuador in 2022 allows us to describe three new species of Acanthocinini (Coleoptera: Cerambycidae). The biodiversity of this relatively small country has been surprising due to the large number of species that were still unknown. Napo province, where the specimens of the new species were collected, has an area of 13,300 km² and is located in the transition zone between the eastern Andes and the plain of the upper Amazon basin of Ecuador (FAO 2020).

Anisopodus White, 1855 includes 48 species distributed from Mexico to southern South America, including the Caribbean (Monné 2023; Tavakilian and Chevillotte 2022). *Parabaryssinus* Monné, 2009 includes a single species known from Colombia and Ecuador (Monné 2023; Tavakilian and Chevillotte 2022). *Paracleodoxus* Monné and Monné, 2010 has two species, one reported from Venezuela, the other from Venezuela and Colombia (Monné 2023; Tavakilian and Chevillotte 2022). Herein, we describe a new species in each of these genera.

Materials and Methods

Photographs were taken at MZSP with a Canon EOS TD Mark II camera and Canon MP-E 65 mm f/2.8 1–5× macro lens, controlled by Zerene Stacker AutoMontage software. Measurements were taken in “mm” using measuring ocular Hensoldt/Wetzlar–Mess 10 in the Leica MZ6 stereomicroscope, also used in the study of the specimens.

All specimens used in this study were collected by the first author and his wife during their stay in Ecuador in 2022.

The collection acronyms used in the text are as follows:

DHCO Daniel Heffern Collection, Houston, Texas, USA

JVCO Josef Vlasak Collection, Schwenksville, Pennsylvania, USA

MZSP Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil

Results

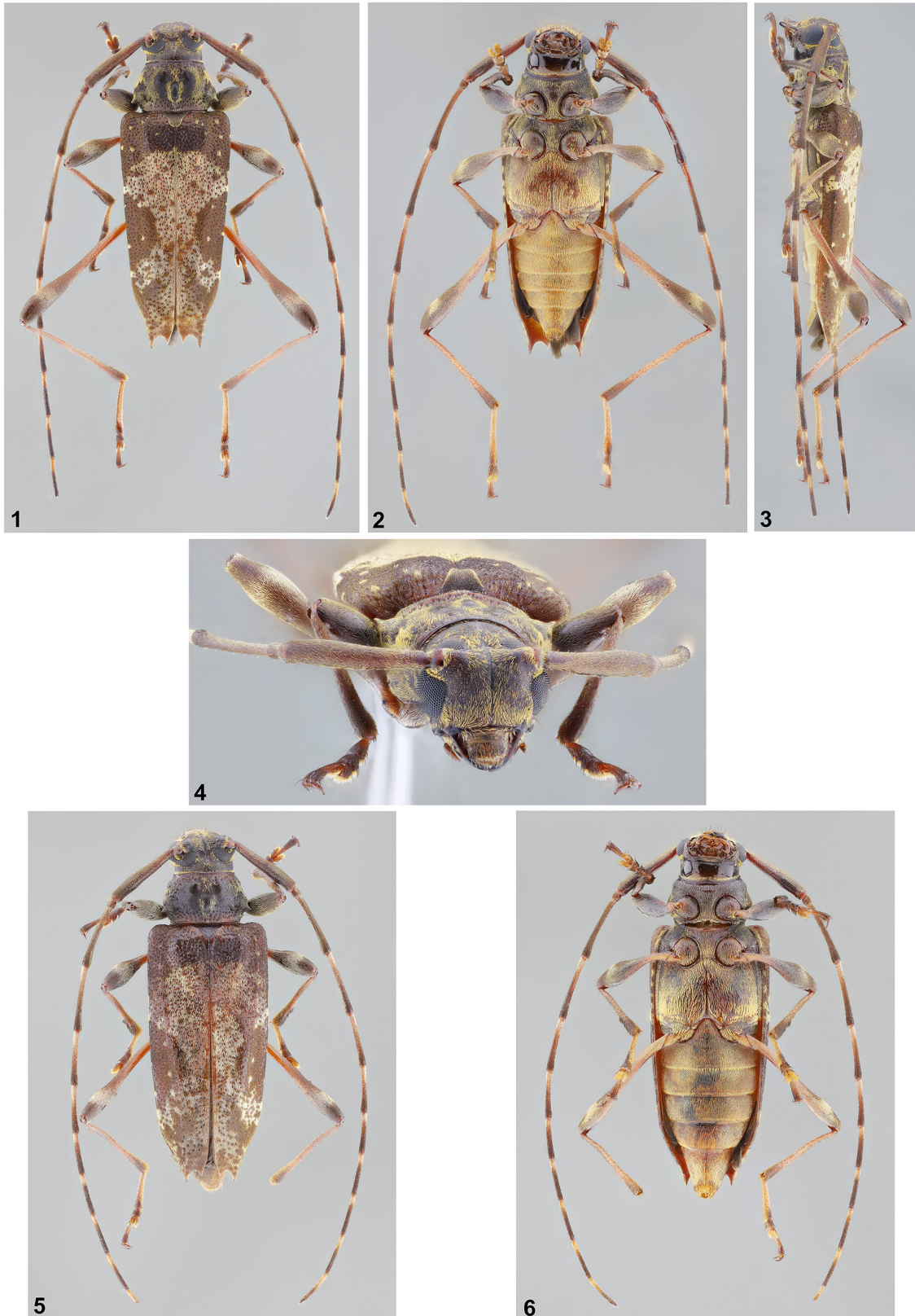
Anisopodus White, 1855

Anisopodus micromaculatus Vlasak and Santos-Silva, new species

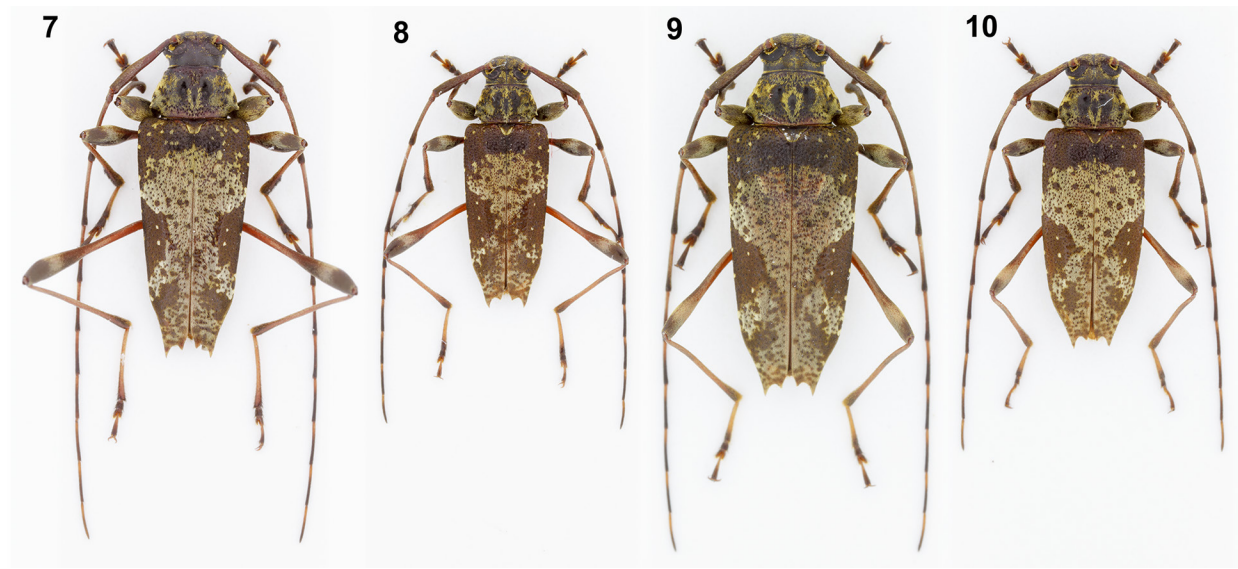
(Fig. 1–10)

Description. Holotype male (Fig. 1–4). Integument mostly dark brown; head capsule slightly lighter ventrally; ventral mouthparts brown, except maxillary palpomeres I–III and labial palpomeres I–II mostly blackish, and apex of maxillary palpomere IV and apex of labial palpomere III dark yellowish brown; anteclypeus brownish with irregular blackish areas interspersed; labrum brown on center of posterior $\frac{2}{3}$, blackish on sides of posterior $\frac{2}{3}$, and mostly yellowish brown on anterior third. Scape mostly brown with irregular dark-brown areas; pedicel mostly brown; antennomere III brown on basal $\frac{4}{5}$, dark brown on apical fifth; antennomere IV–VI orangish brown on basal third, brown on approximately central third, gradually blackish toward apex on apical third; antennomere VII orangish brown on basal third, brown on central third; blackish on apical third; antennomeres VIII–X orangish on basal quarter, reddish brown on remaining basal third, blackish on posterior $\frac{2}{3}$; antennomere XI orangish on basal third, reddish brown on central third, blackish on apical third. Posterior region of pronotum slightly lighter than remaining surface; central region of metaventrite brown. Elytra distinct darker anteriorly between centrobasal gibbosity and suture, and irregular orangish-brown macula near apex, and longitudinal orangish-brown band close to suture on posterior half, this band not reaching apex. Pro- and mesocoxae with irregular reddish-brown areas; metacoxae orangish brown close to trochanter; pro- and mesotrochanters dark orangish brown except blackish apex; metatrochanters orangish brown except blackish apex; meso- and metafemoral peduncles reddish brown (more orangish depending on light intensity); basal $\frac{3}{4}$ of protibiae dark reddish brown; basal $\frac{2}{3}$ of mesotibiae and basal $\frac{3}{4}$ of metatibiae orangish brown; basal $\frac{2}{3}$ of protarsomere I, part of protarsomere III, and basal $\frac{2}{3}$ of protarsomere V reddish brown; basal $\frac{2}{3}$ of mesotarsomere I orangish brown; part of meso- and metatarsomere III and basal half of meso- and metatarsomere V reddish brown; basal $\frac{3}{4}$ of metatarsomere I orangish brown. Abdominal ventrites mostly yellowish-brown.

Head. Frons densely, finely punctate; with abundant yellow pubescence close to clypeus and on inferior half close to median groove, slightly sparser centrally toward vertex, and distinctly sparser on remaining surface, except glabrous median groove; with one long, erect brownish seta near each eye. Area between antennal tubercles with sculpturing as on frons; with somewhat abundant yellow pubescence not obscuring integument, except glabrous median groove; area between antennal tubercles and upper eye lobes with a V-shaped depression, this area partially smooth and partially glabrous. Remaining surface of vertex densely, finely punctate; with somewhat abundant yellow pubescence between eyes, pubescence gradually sparser toward prothorax. Area behind upper eye lobes with sculpturing as on posterior region of vertex; with sparse yellow pubescence superiorly close to eye, dense yellow pubescence inferiorly close to eye, glabrous on remaining surface. Area behind lower eye lobes abundantly, finely, somewhat rugose-punctate; with dense yellow pubescence close to eye, sparse pale-yellow pubescence on remaining surface, except glabrous area close to prothorax. Genae with somewhat sparse pale-yellow pubescence, absent apically; with a few long, erect dark-brown setae interspersed. Wide central area of postclypeus close to frons with abundant yellow pubescence and a few long, erect brown setae interspersed laterally; area close to anteclypeus with abundant yellow pubescence centrally and somewhat abundant and long yellow setae directed forward laterally. Labrum with somewhat sparse yellowish-white pubescence on posterior $\frac{2}{3}$, glabrous on anterior third, except short yellowish-brown setae close to anterior margin; posterior third with long, erect dark-brown setae interspersed. Outer side of mandibles triangularly depressed basally, depression with abundant yellow pubescence and one long, erect dark-brown seta; remaining surface glabrous. Gulamentum smooth, glabrous, except intermaxillary process with somewhat sparse yellowish-white pubescence. Distance between upper eye lobes 0.27 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.62 times distance between outer margins of eyes. Antennae 2.2 times elytral length, reaching elytral apex at apical quarter of antennomere VI. Scape slightly constricted laterally and ventrally near apex; with abundant yellow pubescence not obscuring integument dorsally and laterally, and somewhat abundant whitish pubescence ventrally not obscuring integument; with a few moderately long, erect dark-brown setae ventrally



Figures 1–6. *Anisopodus micromaculatus* sp. nov. 1–4) Holotype male. 1) Dorsal habitus. 2) Ventral habitus. 3) Lateral habitus. 4) Head, frontal view. 5–6) Paratype female. 5) Dorsal habitus. 6) Ventral habitus.



Figures 7–10. *Anisopodus micromaculatus* sp. nov., paratypes, dorsal habitus. 7) Male. 8) Male. 9) Female. 10) Female.

near apex. Pedicel with somewhat abundant yellowish pubescence not obscuring integument and one long, erect seta ventrally, seta dark brown except yellowish apex. Antennomeres with abundant, both yellowish and whitish pubescence on basal light area, and abundant dark-brown pubescence with short whitish setae interspersed on dark apical area; antennomere III with a few short, erect dark-brown setae ventrally; apex of antennomere XI with tuft of whitish setae. Antennal formula based on length of antennomere III: scape = 1.18; pedicel = 0.11; IV = 1.04; V = 0.87; VI = 0.74; VII = 0.69; VIII = 0.67; IX = 0.63; X = 0.61; XI = 0.63.

Thorax. Prothorax wider than long; sides divergent from anterolateral angles to lateral tubercles, somewhat tumid close to lateral tubercles, then slightly convergent to posterolateral angles; lateral tubercles large, not directed backward, located on posterior quarter. Pronotum with one large, slightly elevated, reniform gibbosity on each side of middle, from anterior fifth to posterior third, and one elongated gibbosity centrally, from about middle to posterior quarter; abundantly, minutely punctate on wide central area, somewhat finely and sparsely punctate near anterior margin, sides of basal half, and sides of posterior region of central gibbosity; somewhat abundantly, coarsely punctate near posterior margin; sides with abundant yellow pubescence not obscuring integument, pubescence distinctly sparser close to anterior margin, denser close to sides of prothorax before middle, and gradually pale yellow toward posterior margin, except yellowish-brown pubescent macula about middle; with abundant yellow pubescence centrally from near anterior margin to near posterior margin, pubescence surrounding central gibbosity; anterior apex of reniform gibbosities and central gibbosity glabrous; with sparse pale-yellow pubescence centrally close to anterior margin; with somewhat sparse yellow pubescence connecting central and lateral pubescent areas anteriorly; with sparse yellowish-brown pubescence centrally close to posterior margin, except whitish pubescence under central gibbosity; remaining surface with sparse dark-brown pubescence; sides of anterior margin with dense fringe of yellow setae. Sides of prothorax with abundant yellow pubescence, which is denser on central area close to pronotum and distinctly sparser close to entire anterior margin; anterior margin with dense fringe of yellow setae. Prosternum with abundant yellow pubescence not obscuring integument, except glabrous area close to anterior margin; anterior margin with dense fringe of yellow setae. Prosternal process with abundant yellow pubescence partially obscuring integument; narrowest area 0.47 times procoxal width. Ventral surface of meso- and metathorax with abundant yellow pubescence, obscuring integument on some areas, except sides of central area of mesoventrite with sparser pubescence; mesoventral process slightly, gradually narrowed toward concave apex; apex 0.47 times mesocoxal width. Scutellum with abundant yellowish-brown pubescence not obscuring integument, except pale-yellow pubescence on lateral and apical margins. **Elytra.** Sides gradually narrowed from humerus to posterior sixth, then more distinctly narrowed

toward apex; apex distinctly concave, with long spine on outer angle and large, triangular projection on sutural angle, triangular projection shorter than outer spine; centrobasal crest slightly elevated; abundantly, coarsely punctate, punctures slightly sparser from middle; humeral carina well marked from base to posterior quarter; with dense yellowish-white pubescence dorsally, from anterior fifth to apex, anterior margin of this area straight centrally, arched laterally, reaching humeral carina, widely concave from anterior to posterior third, and with wide, oblique emargination on sides of posterior quarter; yellowish-white dorsal pubescence with yellowish-brown pubescent spots interspersed, and white pubescent areas on sides of posterior quarter; anterior fifth with sparse brownish pubescence between centrobasal gibbosity and suture; remaining dorsal surface with abundant yellowish-brown pubescence not obscuring integument, yellow pubescent spots interspersed on anterior third, and whitish pubescent spots interspersed on sides of central region; area between humeral carina and epipleural margin with abundant yellowish-brown pubescence not obscuring integument, except dense yellow pubescent macula on apex of anterior third and epipleural margin with dashed yellow pubescent bands. **Legs.** Profemora subfusiform; meso- and metafemora pedunculate-clavate; apex of metafemora surpassing elytral apex; maximum diameter of meso- and metafemoral club about as wide as apex of elytron; with abundant pale-yellow pubescence not obscuring integument, except denser, yellower pubescence dorsally and laterally before apex of femoral clubs. Protibia arched, widened apically; with somewhat abundant pale-yellow pubescence not obscuring integument, pubescence more yellowish white toward apex, except posterior 2/3 of ventral surface with abundant, bristly dark-brown pubescence. Mesotibiae with abundant yellowish-white pubescence not obscuring integument, except apical third of ventral surface with bristly yellowish-brown pubescence and dorsal surface with abundant, short, erect dark-brown setae from near middle to apex. Metatibiae with abundant yellowish-white pubescence not obscuring integument, except apical fifth of ventral surface with bristly yellowish-brown pubescence; apical fifth of dorsal surface with a few short, erect dark-brown setae interspersed. Metatarsomere I 1.5 times longer than II–V together.

Abdomen. Ventrites with abundant yellow pubescence partially obscuring integument, except glabrous central apex of ventrites 3 and 4; ventrite 5 1.5 times longer than ventrite 4; apex of ventrite 5 concave, not reaching elytral apex.

Female (Fig. 5–6, 9–10). Differs from male by the antennae slightly shorter, 2.0 times elytral length, reaching elytral apex at middle of antennomere VI; metafemora distinctly shorter, apex not reaching elytral apex; metatarsomere I as long as II–V together; and apex of ventrite 5 surpassing elytral apex.

Variation. Central region of metaventrite dark brown with irregular dark reddish-brown areas interspersed; abdominal ventrites with irregular dark-brown areas interspersed.

Dimensions (mm) (Holotype male/paratypes male/paratypes female). Total length, 9.40/8.20–10.70/9.25–11.20; prothoracic length, 1.40/1.25–1.70/1.40–1.75; anterior prothoracic width, 1.60/1.45–1.80/1.60–1.95; posterior prothoracic width, 1.90/1.65–2.15/1.85–2.35; maximum prothoracic width, 2.45/2.05–3.00/2.40–3.10; humeral width, 3.05/2.70–3.65/3.15–4.05; elytral length, 6.85/6.00–7.90/6.90–8.35.

Type material. Holotype male from ECUADOR, *Napo*: Cosanga, 2100 m, adult on wood at night, 25.XI.2022, J. Vlasak leg. (MZSP). Paratypes (same data as holotype) – 8 males (JVCO), 1 male (DHCO), 1 female (MSZP), 3 females (JVCO), 1 female (DHCO).

Etymology. The specific epithet “micromaculatus,” from Latin *micro* (small) and *macula* (spot), refers to the small, yellow pubescent spots on the elytra.

Remarks. *Anisopodus micromaculatus* **new species** is similar to *A. cochabambaensis* Schmid, 2016, but differs as follows: distance between upper eye lobes shorter than 1.5 times the maximum diameter of the scape; lateral tubercles of the prothorax not located near posterolateral angles; sides of grayish-white pubescent macula of the elytra not inclined forward on anterior region; elytra with small, both grayish-white and yellow pubescent spots; laterocentral dark area of the elytra larger, reaching posterior third; outer apical spine of the elytra distinctly longer than pedicel; and meso- and metafemoral club slender, about as wide as apical width of the elytron. In males of *A. cochabambaensis*, the distance between upper eye lobes is equal to 1.5 times the maximum diameter of the scape, lateral tubercles of the prothorax located near posterolateral angles, sides of grayish-white pubescent macula of the elytra directed forward on anterior region, elytra without grayish-white or yellow pubescent spots,

laterocentral dark area of the elytra smaller, not reaching posterior third, outer apical spine of the elytra about as long as pedicel, and meso- and metafemoral club wider, distinctly wider than the apical width of the elytron.

Parabaryssinus Monné, 2009

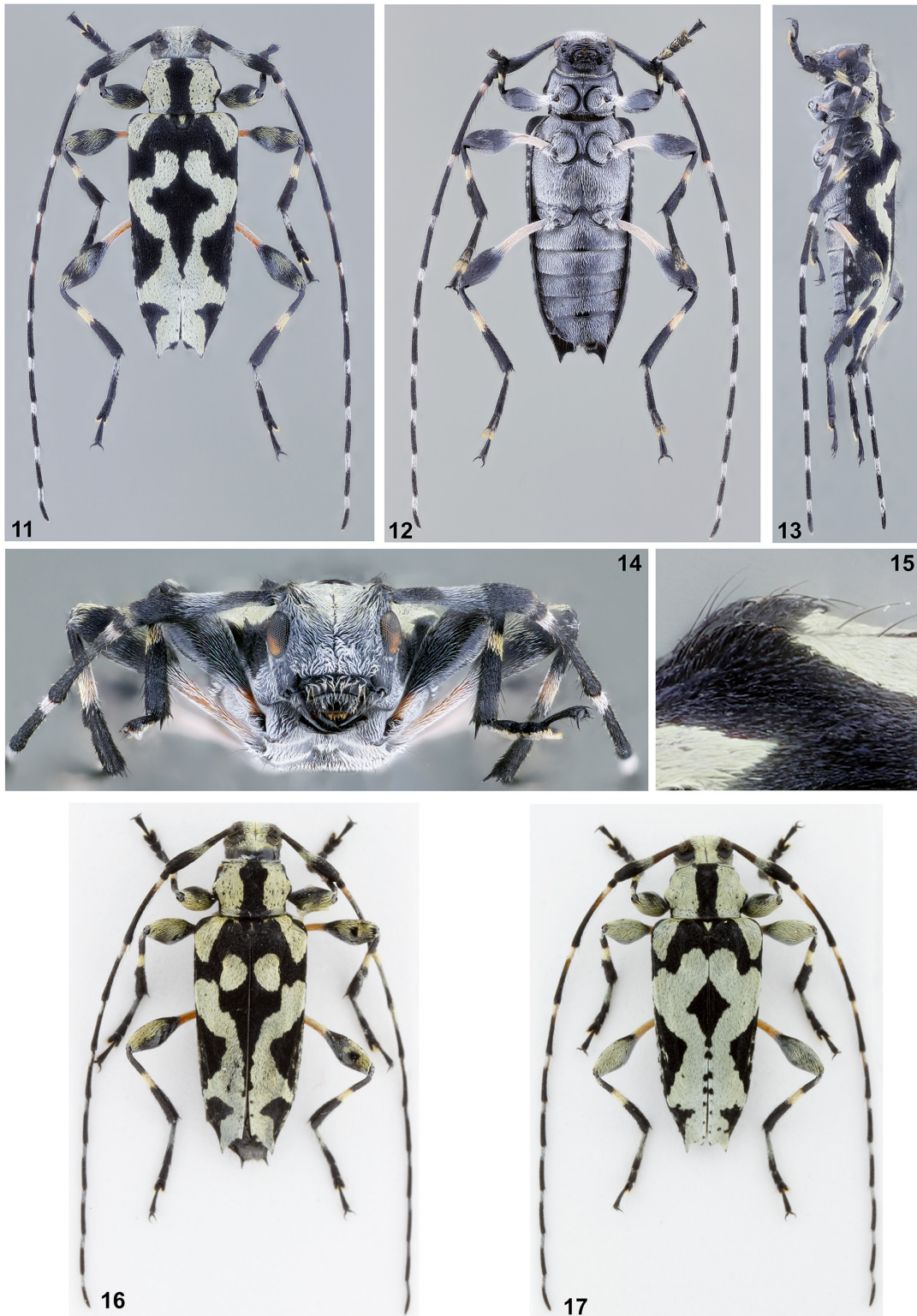
Parabaryssinus katerinae Vlasak and Santos-Silva, new species

(Fig. 11–17)

Description. Holotype male (Fig. 11–15). Integument mostly black; antennomeres III–VI orange basally; femoral peduncles orange; central area of protibiae orange dorsally and laterally; meso- and metatibiae with wide orange ring before middle.

Head. Frons abundantly, finely punctate; with dense white pubescence on wide triangular area close to clypeus, dense, somewhat yellowish-white pubescence on wide triangular area close to vertex, both pubescent triangular areas not entirely obscuring median groove, and dense grayish-white pubescence on remaining surface; with a few long, erect dark-brown setae near eyes. Vertex with dense pubescence, white with slight yellowish tint between antennal tubercles and upper eye lobes, more grayish white close to prothorax, except glabrous median groove, which does not surpass eyes; with a few long, erect dark-brown setae close to eyes. Area behind upper eye lobes with dense fringe of whitish pubescence close to eye and dense, slightly grayish-white pubescence on remaining surface; with a few long, erect dark-brown setae close to eye. Area behind lower eye lobes with abundant grayish-white pubescence not obscuring integument, and long, erect dark-brown setae interspersed superiorly close to eye. Genae with abundant, both white and grayish-white pubescence not obscuring integument, pubescence sparser close to clypeus, except glabrous apex; with a few long, erect dark-brown setae interspersed. Antennal tubercles with dense pubescence, mostly grayish white frontally and somewhat yellowish white on remaining surface. Postclypeus with somewhat abundant, bristly white pubescence centrally, mostly absent laterally, and long yellowish setae directed forward close to anteclypeus; with one long, erect dark-brown seta on each side near frons. Gula smooth, glabrous, except anteroventral region abundantly, finely punctate with somewhat abundant grayish-white pubescence. Distance between upper eye lobes 0.38 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.65 times distance between outer margins of eyes. Antennae 2.2 times elytral length, reaching elytral apex at apical quarter of antennomere VI. Scape sinuous, pedunculate-clavate; with dense blackish pubescence on dorsal and lateral surface of basal third and entire apical third, except sparse grayish-white pubescence on inner apex of apical third, abundant, whitish pubescence dorsally and laterally on central third, pubescence partially yellowish-white laterally, abundant grayish-white pubescence on basal half of ventral surface, and abundant, mostly dark-brown pubescence not obscuring integument on apical half; with a few long, erect dark-brown setae on posterior $\frac{2}{3}$ of ventral surface. Pedicel with abundant blackish pubescence partially obscuring integument, except somewhat sparse whitish pubescence on base of inner surface; with one long, erect dark-brown seta ventrally. Antennomeres III–XI with dense white pubescence basally, white pubescence sparser ventrally on V–VII, dense blackish pubescence on remaining surface, sparse, short yellowish-white setae interspersed, short, decumbent, sparse whitish setae interspersed on blackish pubescence of distal antennomeres, and short white setae on apex of XI; antennomeres III–IV with long, erect dark-brown setae ventrally, more abundant on III; antennomeres V–X with somewhat long dark-brown setae on apex of ventral surface. Antennal formula based on length of antennomere III: scape = 1.00; pedicel = 0.14; IV = 0.81; V = 0.70; VI = 0.63; VII = 0.59; VIII = 0.58; IX = 0.58; X = 0.56; XI = 0.46.

Thorax. Prothorax wider than long; sides with large, conical tubercle centrally, with apex slightly directed upward; anterior constriction well marked. Pronotum without tubercles, with slightly distinct gibbosity on each side of anterior third; abundantly, coarsely punctate; with wide, longitudinal black pubescent band centrally, from anterior to posterior margin, parallel-sided on anterior sixth, then abruptly rounded, widened and concave toward posterior margin; sides with dense yellowish-white pubescence, except black pubescence close to sides of prothorax, yellowish-white pubescence not obscuring part of punctures; with a few long, erect dark-brown setae interspersed on posterior half of yellowish-white pubescence. Sides of prothorax with dense black pubescence. Prosternum with abundant white pubescence not obscuring integument, denser laterally, except glabrous anterior sulcus; anterior margin with dense fringe of short yellowish-white setae. Prosternal process with abundant white



Figures 11–17. *Parabaryssinus katerinae* sp. nov. 11–15) Holotype male. 11) Dorsal habitus. 12) Ventral habitus. 13) Lateral habitus. 14) Head, frontal view. 15) Centrobasal crest of the elytra. 16–17) Paratypes male, dorsal habitus. 16) Specimen 1. 17) Specimen 2.

pubescence not obscuring integument, except glabrous lateral margins; distinctly narrowed centrally, with narrowest area 0.12 times procoxal width. Ventral surface of meso- and metathorax with abundant white pubescence not obscuring integument, denser laterally, except glabrous anterocentral region of mesoventrite, posterocentral region of metaventrite, and slightly sparser pubescence on mesepimeron. Scutellum with dense, subtriangular yellowish pubescent macula on anterocentral $\frac{2}{3}$, and blackish pubescence not obscuring integument on remaining surface. **Elytra.** Sides gradually narrowed toward apex; apex distinctly oblique, concave centrally, with outer angle triangularly projected and sutural angle with short, rounded projection; somewhat abundantly, coarsely punctate, pubescence obscuring most punctures. Humeral carina somewhat well marked from base to posterior quarter; dorsal surface with two longitudinal carinae, one starting near humerus and ending about posterior quarter, another starting about centrally on posterior half and ending about posterior quarter. Centrobasal crest well marked, with long, erect black setae (Fig. 15). Dorsal surface with wide, oblique, dense yellowish-white macula on sides of anterior sixth, not reaching humerus, pubescence yellower basally; with dense, small yellowish-white pubescent macula basally between scutellum and lateral yellowish-white macula; with large, wide, distinctly sinuous white pubescent band from anterior sixth to apex, projected toward sides, almost reaching epipleural margin near posterior quarter, reaching suture on posterior third. Epipleural margin with dashed white pubescent bands on anterior $\frac{3}{4}$; remaining elytral surface with abundant blackish pubescence partially obscuring integument. With somewhat sparse, long, erect blackish setae throughout. **Legs.** Femora pedunculate-clavate; with dense white pubescence on peduncle; profemoral club with dense yellowish pubescence dorsally, yellow pubescence reaching superior area of sides basally, and entire apex, and remaining surface with abundant grayish-white pubescence not obscuring integument (appearing darker depending on light source); meso- and metafemoral club with dorsal pubescence as on profemora, except base with abundant dark-brown pubescence and yellowish pubescence partially absent on basal region of posterior third, and remaining surface mostly with somewhat abundant grayish-white pubescence not obscuring integument. Tibiae with abundant white pubescence on light central region and abundant blackish pubescence on remaining surface; with a few long, erect blackish setae on posterior $\frac{2}{3}$ of protibiae and posterior half of meso- and metatibiae; with sparse, short, erect yellowish setae interspersed on basal third; dorsal surface of posterior half of mesotibiae with abundant, short, erect, thick black setae; ventral surface of posterior half of meso- and metatibiae with short, bristly black setae, denser on mesotibiae. Dorsal surface of tarsomeres with dense black pubescence, except whitish pubescence about basal half of meso- and metatarsomere I; metatarsomere I 1.75 times as long as II–III together.

Abdomen. Ventrites with abundant white pubescence not obscuring integument, pubescence denser laterally on ventrites 1–2, absent on apex of 1–4, glabrous area wider on ventrite 4, pubescence appearing to be more grayish white on some areas due to the integument color; with a few long, erect black setae on ventrites 2–4, more abundant on ventrite 5. Apex of ventrite 5 concave, with long spine on each side.

Variation (Fig. 16–17). The small yellowish-white pubescent macula on elytral base between scutellum and lateral yellowish-white macula absent. The large, sinuous white pubescent band of elytra wider, interrupted in apical sixth. A row of small black maculae along suture on apical third of elytra.

Dimensions (mm) (Holotype male/paratypes male). Total length, 8.00/7.80–8.25; prothoracic length, 1.35/1.40–1.45; anterior prothoracic width, 1.40/1.45–1.50; posterior prothoracic width, 1.60/1.65–1.75; maximum prothoracic width, 1.90/2.00–2.10; humeral width, 2.60/2.75–2.80; elytral length, 5.90/5.80–5.95.

Type material. Holotype male from ECUADOR, *Napo*: Papallacta, 3400 m, 20.XI.2022, K. Vlasakova leg. (MZSP). Paratypes – 2 males (JVCO), same label as holotype.

Etymology. We are pleased to name this species after the first author's wife Katerina Vlasakova who collected the type series.

Remarks. *Parabaryssinus katerinae* new species differs from *P. lineaticollis* (Gounelle, 1910) (see photographs on Bezark 2023 and Nascimento and McClarin 2018) as follows: integument mostly black; general pubescence mostly black, white, and yellowish white; scape distinctly narrower on basal half and pedunculate-clavate; lower eye lobes about as long as gena; and the pronotal and elytral pubescent pattern is formed by black and yellowish-white pubescence. In *P. lineaticollis*, the integument is mostly brown and dark brown, general pubescence is mostly golden and/or yellowish, scape is wider on basal half and is not pedunculate-clavate, lower eye lobes

shorter than gena, and the pronotal and elytra pubescent pattern is more complex, especially on the elytra, and is mostly formed by golden and yellowish pubescence.

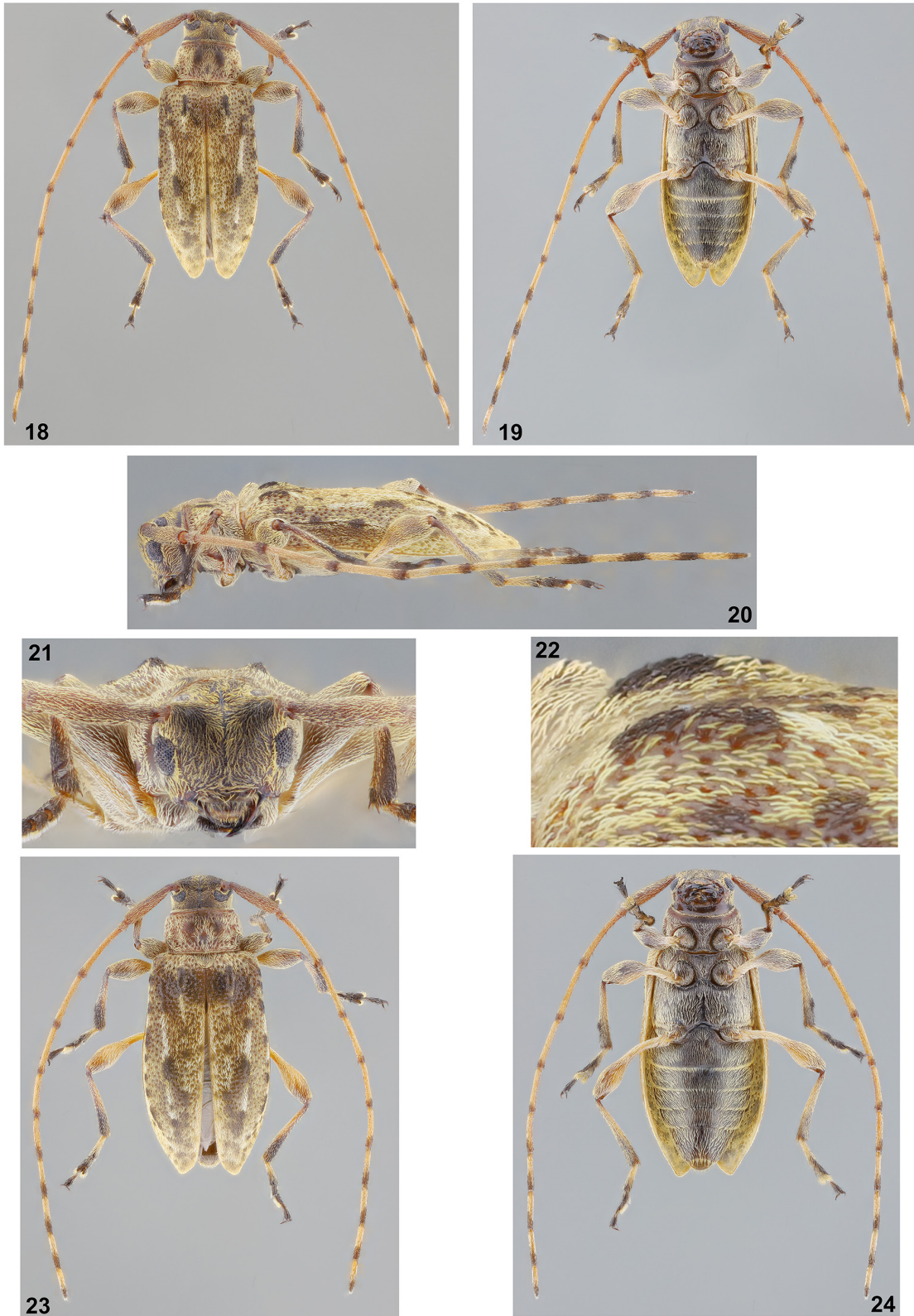
Paracleodoxus Monné and Monné, 2010

Paracleodoxus minutus Vlasak and Santos-Silva, new species

(Fig. 18–24)

Description. Holotype male (Fig. 18–22). Head capsule dark brown; anteclypeus dark brown close to postclypeus, brown close to labrum, except sides irregularly yellowish-brown; labrum dark brown on posterior $\frac{2}{3}$, dark yellowish brown on anterior third; ventral mouthparts dark brown, except blackish palpi; scape brown basally, orangish brown on remaining surface; pedicel orangish brown; antennomeres III–X orangish brown except dark-brown apex, dark area longer on VIII–X; antennomere XI orangish brown except brown apical third. Pronotum and sides of prothorax brown, except pronotum orangish brown close to posterior margin and dark brown on gibbositities. Ventral surface of pro-, meso-, and metathorax dark brown. Scutellum brown, slightly lighter toward apex. Elytra mostly brown on anterior quarter, darker between centrobasal crests, dark brown on centrobasal crests, and with irregular dark-brown maculae laterally; posterior quarter pale with irregular brown maculae interspersed; remaining surface mostly light brown, slightly darker close to inner region of longitudinal carina, and with dark-brown spots close to humeral carina and dark-brown macula on dorsal carina after middle of elytra. Femoral peduncles orangish; femoral clubs orangish brown dorsally and on inner lateral surface, except irregular dark-brown maculae on posterior half of inner lateral surface, dark brown with irregular orangish brown areas on outer lateral surface and ventrally. Protibiae brown basally on dorsal surface, reddish brown on remaining basal half, blackish on apical half; mesotibiae dark brown basally, brown on remaining basal half, except orangish ventral surface; metatibiae dark brown on base of dorsal surface, blackish on remaining dorsal surface and entire apical half, remaining surface orangish. Basal quarter of protarsomere I and basal third of protarsomere V dark reddish brown, remaining surface blackish; protarsomeres II–IV dark brown; basal half of meso- and metatarsomere I orangish, remaining surface dark brown; basal half of meso- and metatarsomere V reddish brown; meso- and metatarsomeres II–IV dark brown. Abdominal ventrites dark brown.

Head. Frons abundantly, finely punctate, somewhat minutely rugose; with abundant yellowish-brown pubescence not obscuring integument; with a few long, erect dark-brown setae close to eyes. Median groove distinct from near clypeus to area between upper eye lobes. Vertex with sculpturing as on frons, depressed close to posterior region of area between antennal tubercles, forming oblique sulcus on each side of median groove; area between antennal tubercles with somewhat abundant, both yellowish-brown and brownish pubescence not obscuring integument, except glabrous median groove; area between upper eye lobes and sides of area between eyes and prothorax with abundant yellowish-brown pubescence not obscuring integument; remaining surface of vertex with abundant dark yellowish-brown pubescence not obscuring integument; with one long, erect dark-brown seta close to eyes, and area around it glabrous. Area behind upper eye lobes with dense yellowish-brown pubescence. Area behind lower eye lobes with abundant pale-yellow pubescence not obscuring integument, pubescence denser close to eye. Genae with abundant yellowish-brown pubescence frontally, slightly sparser toward lateral surface, except glabrous apex; with a few long, erect dark-brown setae interspersed laterally. Wide central area of postclypeus with sculpturing and pubescence as on frons, except area close to anteclypeus with long, erect yellowish-brown setae directed forward; with one long, erect seta on each side, seta dark brown basally, gradually pale toward apex. Sides of postclypeus glabrous. Labrum with somewhat abundant yellowish-brown pubescence on posterior third, glabrous on remaining surface, except anterior margin with fringe of yellowish-brown setae; with sparse, long, erect dark-brown setae interspersed on posterior third. Antennal tubercles abundantly, finely punctate; with abundant brownish pubescence not obscuring integument frontally, and abundant yellowish-brown pubescence not obscuring integument on remaining surface. Gulamentum smooth, glabrous, except anterocentral region with sparse yellowish-white pubescence. Distance between upper eye lobes 0.42 times distance between outer margins of eyes, almost equal to twice maximum diameter of scape; in frontal view, distance between lower eye lobes 0.70 times distance between outer margins of eyes. Antennae 2.4 times elytral length, reaching elytral apex at apical fifth of antennomere VI. Scape, pedicel, and antennomeres III–XI



Figures 18–24. *Paracleodoxus minutus* sp. nov. 18–22) Holotype male. 18) Dorsal habitus. 19) Ventral habitus. 20) Lateral habitus. 21) Head, frontal view. 22) Centrobasal crest of the elytra. 23–24) Paratype female. 23) Dorsal habitus. 24) Ventral habitus.

with abundant yellowish-white pubescence not obscuring integument, except dark apical area of III–XI with sparser dark pubescence with decumbent yellowish-white setae interspersed, and apex of XI with tuft of white setae; pedicel with somewhat long, erect dark-brown seta ventrally; antennomere III with a few, somewhat long, erect yellowish-brown setae ventrally; ventral apex of antennomeres III–X with short, dark-brown setae directed backward. Antennal formula based on length of antennomere III: scape = 0.92; pedicel = 0.17; IV = 0.92; V = 0.84; VI = 0.77; VII = 0.73; VIII = 0.65; IX = 0.65; X = 0.61; XI = 0.61.

Thorax. Prothorax wider than long; anterior constriction well marked; lateral tubercles small, conical, located on posterior third, with apex not directed backward; sides slightly divergent from anterior constriction to lateral tubercles, subparallel-sided between lateral tubercles and posterolateral angles. Pronotum with three slightly elevated gibbosities, one oblique on each side, from about anterior quarter to slightly after middle, another centrally, shorter, located from slightly after middle to posterior quarter; somewhat abundantly, coarsely punctate, except gibbosities abundantly, very finely punctate; sides with abundant pale-yellow pubescence partially obscuring integument, from anterior constriction to posterior margin; anterior constriction almost glabrous laterally; anterior margin with fringe of short pale-yellow setae; central region with wide, longitudinal pubescent band, pubescence sparser, yellowish brown on anterior third, gradually pale-yellow on remaining surface, absent on central gibbosity; area close to anterior constriction with sparse yellowish-brown pubescence between central and lateral pubescence; posterior third with somewhat sparse pale-yellow pubescence between central and lateral pubescence; central gibbosity glabrous; anterolateral gibbosities with somewhat abundant dark-brown pubescence not obscuring integument; with a few long, erect dark-brown setae on sides of posterior quarter. Sides of prothorax with abundant pale-yellow pubescence not obscuring integument, except glabrous area of anterior constriction; anterior margin with fringe of pale-yellow setae. Prosternum glabrous anteriorly except anterior margin with fringe of pale-yellow setae; remaining surface with abundant pale-yellow pubescence laterally, gradually yellowish white toward central region. Prosternal process with abundant yellowish-white pubescence not obscuring integument; narrowest area 0.33 times procoxal width. Wide central area of mesoventrite with abundant yellowish-white pubescence centrally not obscuring integument, sparser laterally; sides with abundant pale-yellow pubescence not obscuring integument. Mesanepisternum and mesepimeron with abundant yellowish-brown pubescence not obscuring integument. Mesoventral process with abundant yellowish white pubescence not obscuring integument; apex 0.42 times mesocoxal width. Metanepisternum and sides of metaventrite with dense pale-yellow pubescence; remaining surface of metaventrite with somewhat abundant yellowish-white pubescence not obscuring integument, except glabrous posterocentral region. Scutellum with abundant yellowish-brown pubescence not obscuring integument. **Elytra.** Parallel-sided on anterior $\frac{2}{3}$, gradually narrowed on posterior third; apex individually rounded; abundantly, coarsely punctate, punctures sparser, shallower on posterior quarter; centrobasal crest moderately elevated, slightly shorter than distance between upper eye lobes, with short, arched dark-brown setae; humeral carina well marked on anterior half, gradually disappearing from posterior quarter; dorsal surface with slightly oblique, longitudinal carina from near humerus to posterior third and another slightly distinct carina from apex of centrobasal crest to before middle of elytra; with abundant yellowish pubescence not obscuring integument, pubescence yellower on some areas and denser basally, except short, longitudinal whitish pubescent band close to apex of centrobasal crest; dorsal carina with dense whitish pubescent band from apex of its basal third to after middle, longitudinal band with somewhat abundant, arched dark-brown setae from apex of previous whitish pubescent band to about posterior quarter, and another dense whitish pubescent band apically; remaining dark maculae and spots with somewhat sparse dark-brown pubescence; area between dorsal carinae on posterior half and most of posterior quarter with whitish pubescence not obscuring integument. **Legs.** Femoral peduncles with abundant white pubescence not obscuring integument; femoral clubs mostly with abundant pale-yellow pubescence not obscuring integument. Protibiae with somewhat abundant pale-yellow pubescence not obscuring integument, except dorsal and lateral surfaces of anterior third $\frac{1}{3}$ with sparse yellowish pubescence, and apical $\frac{3}{4}$ of ventral surface with abundant, bristly yellowish-brown pubescence. Meso- and metatibiae with abundant pale-yellow pubescence not obscuring integument, except abundant, bristly yellowish-brown pubescence on posterior third of ventral surface, sparse yellowish-white pubescence on apical half of dorsal and lateral surfaces of metatibiae, sparse yellowish-white pubescence on apical half of lateral surfaces of mesotibiae, and apical half of dorsal surface of mesotibiae with abundant, short, erect dark-brown setae; dorsal surface of metatibiae with a few short, thick, erect dark-brown setae. Dorsal surface

of tarsomeres I with abundant yellowish pubescence not obscuring integument; dorsal surface of tarsomeres II with somewhat sparse yellowish-white pubescence on basal half and somewhat sparse, both yellowish-white and dark-brown pubescence on remaining surface; tarsomeres III–IV with somewhat sparse, both yellowish-white and dark-brown pubescence; and tarsomeres V with somewhat sparse yellowish-white pubescence on basal $\frac{2}{3}$ and sparse dark-brown pubescence on apical third; metatarsomere I 1.5 times longer than II–III together.

Abdomen. Ventrites 1–4 with abundant pale-yellow pubescence laterally not obscuring integument and abundant yellowish-white pubescence on remaining surface, except entire apex of ventrite 1 with fringe of pale-yellow pubescence; ventrite 5 mostly with abundant yellowish-white pubescence not obscuring integument; apex of ventrite 5 concave.

Female (Fig. 23–24). Similar to male; differs by the shorter antennae, 2.1 times elytral length, reaching elytral apex at basal third of antennomere VII.

Variation. Basal quarter of elytra with wide, transverse dark-brown band; posterior half of elytra with wide, longitudinal, sinuous dark-brown band dorsally.

Dimensions (mm) (Holotype male/paratype female). Total length, 5.05/4.95; prothoracic length, 0.80/0.70; anterior prothoracic width, 1.00/1.00; posterior prothoracic width, 1.15/1.15; maximum prothoracic width, 1.35/1.30; humeral width, 1.75/1.75; elytral length, 3.50/3.55.

Type material. Holotype male from ECUADOR, *Napo*: Pacto Sumaco, [0°40'12"S 77°35'53"W], 1500 m, 24.XI.2022, J. Vlasak leg. (MZSP). Paratype female, same data as holotype (JVCO).

Etymology. The specific epithet “*minutus*” is Latin, meaning small and refers to the small size of the species.

Remarks. According to Monné et al. (2020), “*Sternacutus*, due to the different shape of the scape, metafemora, and body width of the included species, probably includes more than one genus.” The new species would belong to the group of species of *Sternacutus* Gilmour, 1961 with distinct humeral carina, which includes the type species of the genus, *S. cristatus* Gilmour, 1961 (= *S. zikani* (Melzer, 1925)). The key from Monné et al. (2020) does not allow including this group of species in *Sternacutus*, and needs to be adapted after a full revision of this genus. The real differences between *Sternacutus* and *Paracleodoxus* are not clear to us. However, based on the features pointed out by Monné and Monné (2010) and the similar general appearance, we prefer to include the new species in *Paracleodoxus*.

Paracleodoxus minutus **new species** can be separated from the other species of the genus by the following key:

1. Distance between upper eye lobes almost equal to twice maximum diameter of the scape. Ecuador *P. minutus* Vlasak and Santos-Silva, sp. nov.
- Distance between upper eye lobes at most as wide as maximum diameter of the scape 2
- 2(1). Pronotum with blackish longitudinal bands; centrobasal crest of the elytra with tuft of erect setae. Venezuela *P. simillimus* Monné and Monné, 2010
- Pronotum without blackish longitudinal bands; centrobasal crest of the elytra without tuft of erect setae. Colombia, Venezuela *P. cineraceus* Monné and Monné, 2010

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