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On the true identity of *Scopadus ciliatus* Pascoe, reinstatement of Acanthomerosternoplini, and description of a new species (Coleoptera, Cerambycidae, Lamiinae)

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ABSTRACT. A new species, *Scopadus charynae* sp. nov., is described and illustrated. Acanthomerosternoplini Tippmann, 1955 is reinstated. The female of *Scopadus ciliatus* Pascoe, 1857 is described, and previous misidentification of this species from is discussed; the distribution of this species is updated.

KEYWORDS. Misidentification, Peru, South America, taxonomy.

Recently, several cerambycid specimens from countries in the Amazon region (South America) were sent to Museu de Zoologia, Universidade de São Paulo (MZSP). Current catalogs (e.g., Monné, 2018; Tavakilian & Chevillotte, 2018) document the immense diversity of Cerambycidae of the region. Nevertheless, many species are only known by the holotype specimen and taxonomic errors are frequently committed. The study of this material allowed us to identify rarely collected species and verify previous misidentifications that persist until now.

In this study we provide the first description of the female of *Scopadus ciliatus* Pascoe, 1857 together with a detailed taxonomic history and distribution updates of this species. Additionally, after an exhaustive bibliographic study, we revalidate the tribe Acanthomerosternoplini Tippmann, 1955 and describe a new species of *Scopadus* Pascoe, 1857.

MATERIAL AND METHODS

Photographs were taken with a Canon EOS Rebel T3i DSLR camera, Canon MP-E 65mm f/2.8 1-5X 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.

The collection acronyms used in this study are as follows: JJRH, Juan José Ramírez Hernandez private collection, Loreto, Iquitos, Peru; JLGC, Jean-Louis Giuglaris Private Collection, Matoury, French Guiana; MNRJ, Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Rio de Janeiro, Brazil; MZSP, Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil; PHDC, Pierre-Henri Dalens, Rémire-Montjoly, French Guiana; USNM, National Museum of Natural History, Washington, D. C., U.S.A.

RESULTS

Acanthomerosternoplini Tippmann, 1955

Acanthomerosternoplonini Tippmann, 1955:10; Bouchard *et al*., 2011:491; Monné, 2018:499 (cat.; in syn.).

Scopadini Villiers, 1980:587; Bouchard *et al*., 2011:491; Monné, 2018:499 (cat.; in syn.).

Tippmann (1955) erected the tribe "Acanthomerosternoplonini" to include his new genus *Acanthomerosternoplon* which included a single species, *A. paradoxum* (Fig. 1), described in the same work. Regarding the "Acanthomerosternoplonini", Tippman stated that is was (translated): "Related with the tribe Cyrtinini, but pronotum with bifurcated lateral spine, profemora doubly spined, projection on prosternum lanceolate, pointing in the direction of the head." Although he did not comment about the tarsal claws in the description of the tribe, he reported on the description of the genus (translated): "Tarsi same length, relatively short, 2nd segment always having half-length of 1st or 3rd; claws almost as long as remaining three segments and strongly divergent."

Evidently, Tippmann wrongly named the tarsomere V as "claws" and at the same time was talking about the shape of the true claws at the end of the sentence. Since the tarsal

claws in *A. paradoxum* are divaricate and not divergent, they were mistakenly described as divergent.

Later, Villiers (1980) erected the tribe Scopadini, and correctly pointed out (translated): "Lacordaire does not seem to have seen the claws of *Cyrtinus* because it implies that they are divaricate while they are divergent. These are therefore all genera with divaricate claws that should be grouped into another tribe: Scopadini, nov. (*Scopadus* Pascoe, *Omosarotes* Pascoe, etc.)" Without doubt, André Villiers was correct since the claws in *Cyrtinus* LeConte, 1852 are divergent (Figs 4, 5), while they are divaricate in *Scopadus* (Fig. 3), and *Omosarotes* (Fig. 2).

Finally, Julio & Monné (2001) synonymized *Acanthomerosternoplon* with *Omosarotes* (translated): "Are proposed the transference of *Scopadus nigripennis*, *Acanthomerosternoplon paradoxum* and *A. foxi* for *Omosarotes*, thus making synonyms the genera *Omosarotes* Pascoe, 1860 and *Acanthomerosternoplon* Tippmann, 1955." Accordingly, "Acanthomerosternoplonini" was considered a synonym of Cyrtinini since *Omosarotes* belonged to the latter.

Bouchard *et al*. (2011) correctly reported: "Acanthomerosternoplonini Tippmann, 1956: 10 [stem: *Acanthomerosternopl*-]. Type genus: *Acanthomerosternoplon* Tippmann, 1955 [syn. of *Omosarotes* Pascoe, 1860]. Comment: incorrect original stem formation, not in prevailing usage."

Although the synonymy between *Acanthomerosternoplon* and *Omosarotes* is correct, Scopadini is a junior synonym of Acanthomerosternoplini. The best difference between Acanthomerosternoplini and Cyrtinini, as reported by Villiers (1980), is the shape of the tarsal claws.

Cyrtinini can be defined as proposed by Villiers (1980) (translated): "Head not retractile, flat or slightly sulcate between antennae. Mandibles very short. Eyes small, subdivided or divided into two separated lobes. Antennae slightly longer than body, from 10 to 11-segmented. Prothorax

Figs 1-5. Figs 1, 2, *Acanthomerosternoplon paradoxum* Tippmann, 1955: 1, dorsal habitus; 2, tarsal claw. Figs 3-5, tarsal claw: 3, *Scopadus ciliatus* Pascoe, 1857; 4, *Cyrtinus pygmaeus* (Haldeman, 1847); 5, *Cyrtinus meridialis* Martins & Galileo 2010.

cylindrical, pronotum gibbous, inerme or tuberculate laterally. Elytra slightly longer than head + prothorax, depressed anteriorly, more or less tumid posteriorly. Legs moderately long, femora strongly pedunculate-clavate; metatarsomere I shorter than II-III together; claws divergent." This description agrees well with that by Dillon & Dillon (1952). It includes: *Cyrtinus*, *Decarthria* Hope, 1834, *Microloa* Aurivillius, 1924, and *Boricyrtinus* Micheli, 2003. Micheli (2003) did not comment about the tarsal claws in *Boricyrtinus*. However, it is possible to see that they are divergent (see Bezark, 2018a). Hope (1834) did not report the shape of the claws in the original description of *Decarthria*. However, according to Gahan (1895) and Villiers (1980) they are divergent, which places the genus in Cyrtinini.

Acanthomerosternoplini differs from Cyrtinini as follows: eyes entire or nearly divided; antennae 11-segmented; tarsal claws divaricate. It includes: *Omosarotes*, *Scopadus*, and *Sciocyrtinus* Fisher, 1935. Fisher (1935) reported on *Sciocyrtinus*: "tarsal claws simple, divaricate." However, the tarsal claws in *Sciocyrtinus* are divergent. Accordingly, the genus is maintained in Cyrtinini.

Before this work, Cyrtinini included 14 genera (Tavakilian & Chevillotte, 2018). Neither Aurivillius (1920) nor Dillon & Dillon (1952) mentioned the shape of the tarsal claws in *Diastosphya* Aurivillius, 1920. However, they appear to be divaricate in the holotype of *D. bimaculata* Dillon & Dillon, 1952 (see Bezark, 2018b). As we did not examine specimens of this genus, it is provisionally kept in Cyrtinini. *Enotocleptes* Breuning, 1940 is also kept in Cyrtinini since we did not examine species of this genus and Breuning (1940, 1951) provided contradictory information on the claws: Breuning (1940) – "Die Klauen gesperrt", suggesting that they are divergent; Breuning (1951) – "crochets divariqués." We also did not examine specimens of the following genera, in which the original description did not provide information on the shape of the claws: *Gracilosphya* Dillon & Dillon, 1952; *Haplorhabdus* Aurivillius, 1917; *Leptocyrtinus* Aurivillius, 1928; and *Oloessa* Pascoe, 1864. According to Aurivillius (1913), the tarsal claws in *Odontorhabdus* Aurivillius, 1913 are divaricate; thus, after examination of specimens the genus should be transferred to Acanthomerosternoplini.

Scopadus Pascoe, 1857

Scopadus Pascoe 1857:100; Thomson, 1861:366; 1864:131; Bates, 1866:195 (error of identification); Lacordaire, 1872:821 (error of identification); Gemminger, 1873:3171 (cat.); Aurivillius, 1917:48 (key) (error of identification); 1923:450 (cat.); Blackwelder, 1946:620 (checklist); Gilmour, 1965:624 (cat.); Monné & Giesbert 1994:270 (checklist); Monné, 1995:5; Micheli, 2003:199 (key); Monné & Hovore, 2006:240 (checklist); Monné, 2005:373 (cat.); 2012:93; Monné & Chaboo, 2015:101 (checklist); Monné, 2018:504 (cat.).

Remarks. According to Pascoe (1857) on *Scopadus*: "Head large, eyes reniform, antennae longer than the body, ciliated beneath. Prothorax narrower than the head, vaulted above and rather longer than broad. Elytra crested at the shoulders, very convex at the apex and rounded. Legs with the femora thickened, the tarsi very short. Closely allied to *Leptoplia* [= *Microplia* Audinet-Serville, 1835], Dej., which, however, differs in its large globular thorax, and very compressed and lengthened femora."

According to Bates (1866) on *S. ciliatus* (translated): "*Scopadus* elongate-oblong, reddish, head and pronotum black opaque, elytra purple-black velvety on posterior half; thorax convex dorsally, with acute tubercle at each side."

Similarly, Lacordaire (1872) reported (translated): "Prothorax narrower than head, slightly longer than wide, convex dorsally, and with an acute tubercle on each side."

Aurivillius (1917) provided a key to genera of Cyrtinini and included *Omosarotes* and *Scopadus* as genera having the prothorax tuberculate laterally. However, he did not mention the shape of the lateral tubercles.

Tippmann (1955) was the first who established the current wrongly interpretation of *S. ciliatus* (translated): "Pascoe seems to have described *Scopadus ciliatus* based on only 1 male from Amazonas, though he makes no indulgence about the sex of the species he described; the long antennae, however, necessarily point to a male. Bates…, reported on 3 examples… but he also gives no sex for his animals, but emphasizes that "its antennae are much elongated", so they can only be males. But incomprehensibly his animals remark that the antennomeres are "nearly naked," while Pascoe (*l.c.)* expressly refers to "ciliated beneath" and, according to his picture, the setae are long and denser. The female has hitherto not been treated in the literature …; in my collection I also have a female of this very rare species from the Chanchamayo Valley (East Peru), …; the antennae of the female are therefore much shorter, only a little longer than the body; the first 7 antennomeres are bristled as in the male, but the last 4 antennomeres are very conspicuously dense and long, fasciculate and brush-shaped. Otherwise there is complete agreement with the male."

Howden (1959) correctly indicated that the prothorax in *Scopadus ciliatus* lacks a lateral spine. Julio & Monné (2001) described the male of *Scopadus ciliatus*. Yet, according to these authors, the antennae in males of *S. ciliatus* surpass elytral apex by three antennomeres.

Finally, Micheli (2003) provided a key to genera of Cyrtinini in the Western Hemisphere, characterizing *Scopadus* as having eyes not completely divided, and prothorax with sides lacking "teeth".

The first author who incorrectly identified the species of *Scopadus* was Bates (1866). According to him, in this genus, the "antennae [are]… nearly naked". Actually, the antennomeres in *Scopadus* have long and erect setae as in *Omosarotes*. Furthermore, there is no acute tubercle on the sides of the prothorax of *S. ciliatus*, and Bates affirmed that they are present in *S. ciliatus*. Accordingly, the three specimens from Brazil (Amazonas) examined by Bates belong to a different species, and only examination of the specimens will allow us to know which species is involved and if it really is a Cyrtinini. Currently, only the species of *Omosarotes* have acute lateral tubercles on prothorax; Bates

(1866) was not talking about a species of that genus, because he wrote about it in the same paper, and was apparently correct..

Lacordaire (1872) did not examine specimens of *S. ciliatus*, and provided his description based on the original description, and details by Bates (1866). Consequently, he made the same mistakes regarding the identification of the genus and species. As Aurivillius (1917) did not describe the shape of the lateral tubercles of the prothorax in *Scopadus*, it is impossible to know if he really recognized the true *S. ciliatus* (lateral tubercles present, but rounded), or if he also was following Bates (1866) (acute lateral tubercles).

It is difficult to understand how the true identity of *S. ciliatus* (Bates, 1866; Lacordaire, 1872) was confused, because Pascoe (1857) provided a very good figure of the species, clearly showing the absence of acute lateral tubercles in the prothorax, which was also not mentioned in the description of the genus or species.

The affirmations by Tippmann (1955) also make no sense. He did not see that the specimens described by Bates (1866) could not be the true *S. ciliatus* because they have acute lateral spines in the prothorax. Furthermore, he assumed that a specimen with different prothoracic shape, different distribution of the setae on the distal antennomeres, and without erect setae on elytra, was the female of *S. ciliatus*. The female figured by Tippmann (1955) (Figs 15-19) is a specimen of *S. charynae* sp. nov.

Howden (1959) did not examine specimens of *S. ciliatus*. As there are more than one species currently considered as *S. ciliatus*, it is impossible to know what Howden meant by his *S. ciliatus*. Thus, we need to assume that he was correct, although he was probably not talking about *S. ciliatus*, since the eyes are distinctly not divided in this species. The same reasoning applies regarding the key from Micheli (2003).

Julio & Monné (2001), evidently following Tippmann (1955), described the male of a species that they mistakenly believed to be *S. ciliatus*. According to them (translated): "Tippmann (1955) illustrated a specimen of *Scopadus ciliatus* from Peru, considering it female, based only on the antennal length, since Pascoe (1857) and Bates (1866) did not inform the sex of the specimens, but hat described their antennae as long." From what we can deduct from this statement, for Julio & Monné (2001), the specimen figured by Tippmann (1955) is a male, and the specimen described and illustrated by Pascoe (1857) is a female. In summary, for Tippmann (1955) the presence of dense and long setae on distal antennomeres is a sexual feature of females (holotype would be a male), while for Julio & Monné (2001), it is a sexual feature of males (holotype would be a female). However, both the specimen figured by Tippmann (1955) and those figured and described by Julio & Monné (2001) are not *S. ciliatus*. The antennae in the male figured by Julio & Monné (2001) surpass the elytral apex by about four segments, and not three as pointed out. In the same way, the antennae in the specimen figured by Tippmann (1955) are shorter than in that male (surpassing elytral apex by about three segments), suggesting that it is actually a female. Furthermore, the specimen from Bolivia listed by Julio & Monné (2001) as being a male of *S. ciliatus*, is very different from the true female of *S. ciliatus*.

In conclusion, upon examination of specimens, description, redescriptions, and figures at our disposal, *Scopadus ciliatus* (*sensu auctorum*) encompass, at least, three species (not considering the specimens mentioned by Bates, 1866). One of these species is *S. charynae* sp. nov., described herein. The other is probably an undescribed species (specimen listed in Bezark, 2013, and figured in 2018a).

Scopadus ciliatus Pascoe, 1857

(Figs 3, 6-10)

Scopadus ciliatus Pascoe, 1857:100; Thomson, 1864:131; Gemminger, 1873:3171 (cat.); Aurivillius, 1923:450 (cat.; part); Blackwelder, 1946:620 (checklist); Howden, 1959:372; Gilmour, 1965:624 (cat.); Monné & Giesbert, 1994:270 (checklist); Monné, 1995:5 (cat.; part); 2005:15,101 (checklist); Monné, 2018:504 (cat.; part).

Female (Figs 3, 6-9). Head dorsally dark brown, almost black; reddish-brown ventrally, darker anteriorly and laterally. Scape, pedicel and antennomere III dark yellowish brown; antennomere IV dark yellowish brown except brown distal area; remaining antennomeres brown, distinctly darker from VIII. Pronotum black except small dark reddish-brown centrally close to posterior margin, and reddish-brown sides also close to posterior margin (this area prolonged toward sides of prothorax); sides of prothorax black, except reddish-brown posterior area, and anterior area close to prosternum; prosternum reddish brown anteriorly, gradually yellowish-brown toward apex of prosternal process. Ventral side of meso- and metathorax yellowish-brown, slightly darkened on some areas, except dark-brown metanepisternum (almost black toward posterior area). Elytra mostly yellowish brown on about anterior half, except narrow, cordiform brown band dorsally (darkened toward its apex), and paler band adjacent to outer side of cordiform band; posterior half black. Legs yellowish brown except dark brown, irregular macula on dorsal and lateral sides of clave of metafemora, and slightly darker areas on tibiae, and dark reddish-brown tarsi. Abdominal ventrites black. Erect setae black on about basal third/half, yellowish on distal two-thirds/half.

Head. Frons large, trapezoid, opaque, densely micropunctate; with minute, sparse yellowish setae, denser, slightly longer laterally and close to clypeus; with long, sparse setae throughout. Area between antennal tubercles and region slightly after posterior ocular margin with sculpturing as on frons; with minute sparse yellowish setae, denser, slightly longer from eyes; with erect, sparser setae, slightly shorter than on frons. Remaining surface of vertex densely micropunctate, interspersed with fine, sparse punctures; with minute, sparse yellowish setae (more whitish depending on light intensity), glabrous close to prothorax. Area behind eyes densely micropunctate, interspersed with fine, sparse punctures; with minute yellowish setae close to eye (this

Figs 6-10, *Scopadus ciliatus* Pascoe, 1857. Figs 6-9, female: 6, dorsal habitus; 7, ventral habitus; 8, lateral habitus; 9, head, frontal view. Fig. 10, holotype.

area slightly widened toward inferior side of lower lobe), interspersed with a few long, erect setae, glabrous on remaining surface. Genae slightly longer than lower eye lobe; densely micropunctate, finely, transversely striate about middle, smooth on apex; with short, sparse yellowish setae, and long, sparse, long setae except glabrous smooth area. Antennal tubercles densely micropunctate, opaque except shining almost smooth distal area; with moderately abundant, decumbent, short yellowish setae, interspersed with long, erect, sparse setae except glabrous shining area. Median groove distinct from clypeus to prothoracic margin. Postclypeus narrow, nearly coplanar with frons posteriorly, strongly inclined toward anteclypeus; finely carina-shaped on wide central area; glabrous laterally and close to frons, with both, short and long yellowish setae on inclined area. Labrum large, convex, coplanar with anteclypeus at posterior 2/3, inclined at anterior third; finely, sparsely punctate on central area; with minute, very sparse, decumbent golden setae, and a few long, erect setae on posterior 2/3, short, erect, moderately abundant golden setae on inclined area, and fringe of golden setae on anterior margin. Gulamentum smooth, shining, glabrous on wide posterior area, strongly inclined, with long, erect setae anteriorly (anterior margin distinctly projected centrally toward mentum). Eyes not divided; area of connection between ocular lobes with 2–3 rows of ommatidia; distance between upper eye lobes 0.3 times length of scape; in frontal view, distance between lower eye lobes 0.8 times length of scape. Antennae 2.3 times elytral length, reaching elytral apex at basal third of antennomere VIII. Scape gradually widened toward apex (distal area about twice width of basal area); with yellowish pubescence dorsally, sparse laterally, absent ventrally; with long, erect, sparse setae throughout. Antennomeres III–IV with yellowish pubescence dorsally, sparse laterally, absent ventrally; with moderately long, erect, sparse setae dorsally, and long, more abundant, aligned erect setae ventrally. Antennomeres V–XI with brownish, slightly conspicuous pubescence, interspersed with short, erect setae throughout, and a few long, erect setae at apex of V–X. Antennal formula (ratio) based on length of antennomere III: scape = 1.02; pedicel = 0.16; IV = 1.21; V = 0.73; VI = 0.67; VII = 0.65; VIII = 0.62; IX = 0.62; X = 0.57; XI = 0.81.

Thorax. Prothorax slightly longer than wide; wider anteriorly than posteriorly; sides sinuous, forming gibbous area on anterior half, and another smaller between middle and posterior quarter; dorsal surface of posterior gibbous with small, nearly conical, inclined tubercle; area close to anterior margin with narrow constriction. Pronotum in lateral view, nearly horizontal at anterior and posterior sixth, strongly inclined between these areas; densely micropunctate, opaque; with long, moderately sparse erect setae; with nearly black pubescence partially obscuring integument except: white pubescent band centrally, from posterior sixth to about middle (denser near middle of pronotum); yellowish-white pubescent macula on each close to posterior margin; yellowish-brown pubescence on center of posterior sixth; oblique, nearly triangular yellowish-brown pubescent macula on each side of anterior area of central white pubescent band; yellowish-brown pubescent macula laterally on posterior third, partially covering posterior gibbous area; nearly glabrous laterally on posterior sixth (this area widened toward sides of prothorax). Sides of prothorax with long, moderately sparse erect setae; with nearly black pubescence partially obscuring integument except: glabrous area close to posterior margin; wide yellowish-white pubescence area close to glabrous area; nearly glabrous anterior area close to prosternum. Prosternum with yellowish-white pubescence partially obscuring integument on about posterior 2/3, glabrous on anterior third; with long, erect, sparse setae on pubescent area. Prosternal process nearly glabrous except sides of posterior area with sparse yellowish-white pubescence. Ventral side of meso- and metathorax with yellowish-white pubescence except subtriangular posterocentral area of metaventrite with short, sparse erect setae; metaventrite with long, erect, sparse yellowish-white setae throughout. Scutellum with yellowish-brown pubescence not obscuring integument. Elytra: anterior conical tubercle large; with oblique sulcus from near humerus to near suture before middle; outer side of oblique sulcus margined by wide tumid band; with aligned, coarse punctures from base to about apex of anterior third, on sides of scutellum and along suture; with coarse punctures on sides of oblique anterior sulcus; coarsely, moderately sparsely punctate from tumid area of anterior half to lateral margin; with both, coarse and moderately finely, sparse punctures on remaining surface of basal half; distal half nearly smooth. Anterior half mostly with yellowish-brown pubescence, partially obscuring integument on some areas, except: two white pubescent spots on middle of dorsal area; inverted, slightly inclined L-shaped dark-brown pubescent band on basal third, from suture to anterior tubercle; dark-brown pubescence inside of oblique sulcus of basal half; sparse grayish-white pubescence on tumid area of basal half. Posterior half with dark pubescence not obscuring integument, interspersed with sparse whitish pubescence on its anterior area. Entire surface with long, erect setae, more abundant on posterior half. Apex of anterior tubercle with long, erect setae. Legs: femora with sparse yellowish-brown pubescence (denser dorsally), and long, erect, sparse setae; pro- and mesotibiae with yellowish-brown pubescence, denser, forming narrow crest along center of dorsal surface, sparser on laterally and basal half of ventral surface; with long, erect, sparse setae; metatibiae with pubescence and erect setae as on pro- and mesotibiae, but crest-pubescent band along center of dorsal surface yellowish-white on basal half, white on distal half.

Abdomen. Ventrites finely, sparsely punctate; anterior area of ventrite I with grayish-white pubescence not obscuring integument; remaining area of ventrite I and II–V with long, erect, sparse yellowish-white setae; apex of ventrite V nearly truncate.

Dimensions (mm), 1 female. Total length, 9.45; prothoracic length, 2.10; anterior prothoracic width, 2.05; posterior prothoracic width, 1.80; maximum prothoracic width, 2.15; humeral width, 2.90; elytral length, 5.65.

According to Pascoe (1857), the length of the holotype (apparently a male) is 4 lines (≈ 8.5 mm).

Material examined. PERU, **Loreto**: Pebas (Rio Amazonas; -3.313042 / -71.870277), 1 female, 17.IV.2010, J.J.R. Hernandez col. (JJRH).

Distribution. *Scopadus ciliatus* was described from "Ad Flumen Amazon." This means that the specimen was collected near the Amazon River. Not considering the information by Aurivillius (1923), who listed "Amazonas: Ega" (evidently based on the misidentification by Bates (1866)), the type locality of the species has been recorded as Brazil (Amazonas). However, it is impossible to know if the specimen was collected in Brazil or Peru since the Amazon River has its headwaters in Peru. We do not know if there is more detailed information in the label(s) of the holotype. Accordingly, if there is no more information, the type locality of the species will remain doubtful. We are formally excluding *Scopadus ciliatus* from the fauna of Ecuador, Bolivia, and French Guiana. However, it is impossible to exclude Brazil, since we do not know the true type locality.

Remarks. Pascoe (1857) did not provide the sex of the holotype of *S. ciliatus* (Fig. 10). However, both the photograph of the holotype and the original drawing indicate that the antennae are somewhat longer than in the examined female, surpassing elytral apex at about middle of antennomere VII. Thus, the holotype is a apparently male.

Scopadus charynae sp. nov.

(Figs 11-22)

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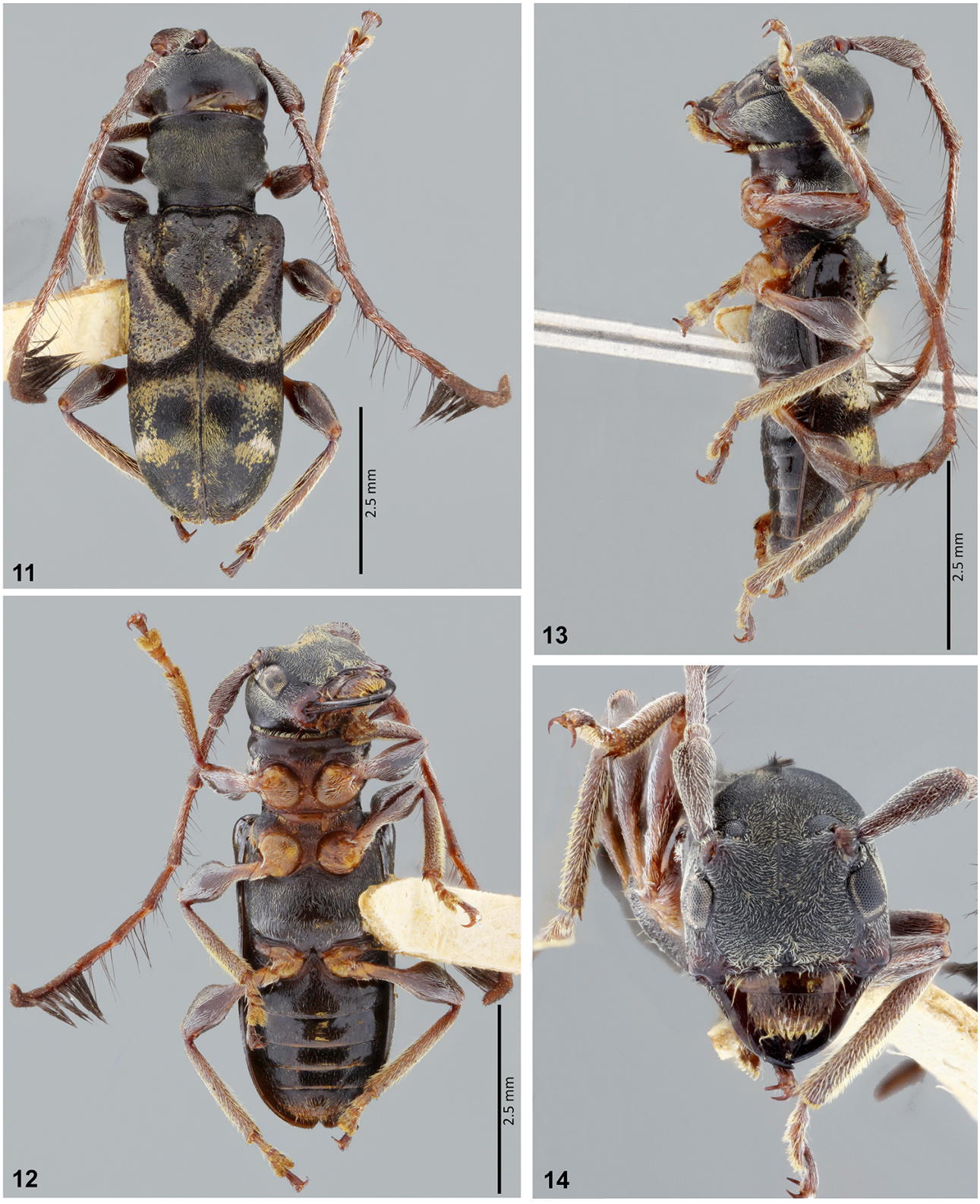
Scopadus ciliatus; Tippmann, 1955:9; Júlio & Monné, 2001:102; Monné, 1995:5 (cat.; part); 2005:373 (cat.; part); Monné *et al*., 2012:38 (distr.; part); Morvan & Roguet, 2013:24 (distr.); Monné, 2018:504 (cat.; part).

Female (Figs 11-18, 22). Integument mostly dark brown, almost black; apex of genae, narrow anterior area of gulamentum, mouthparts, anteclypeus, labrum, and mesoventrite dark reddish brown; scape brown; antennomeres reddish-brown, gradually lighter toward distal segments; prosternal process reddish brown; coxae light reddish brown, more yellowish-brown on some areas; elytra with slightly distinct pale area close to oblique sulcus on anterior half; femora reddish brown on base, gradually dark brown toward apex (except narrow dark brown distal area); tibiae and tarsi brown, irregularly tinted with reddish-brown.

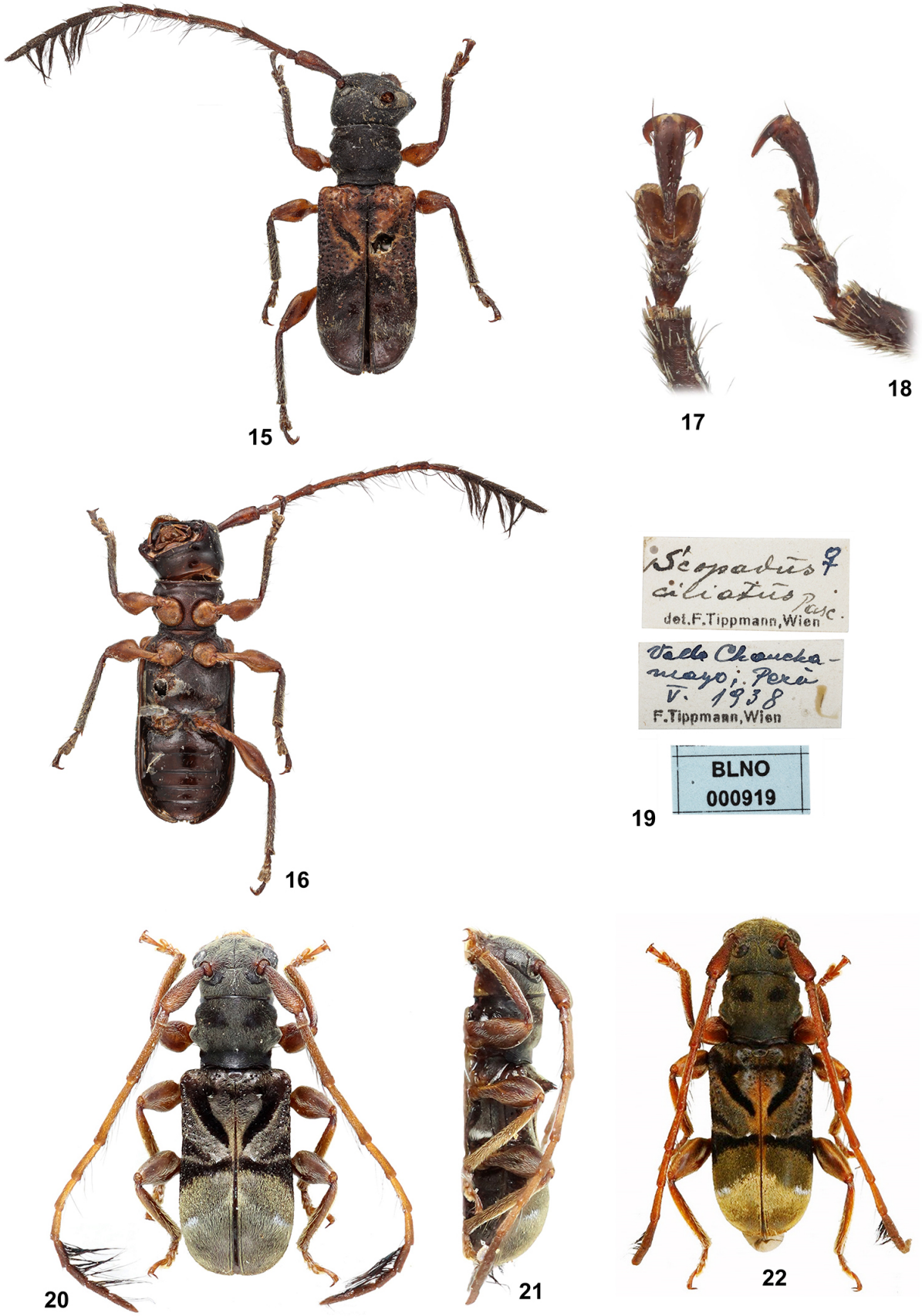
Head. Frons large, transverse, minutely, densely micropunctate except small, nearly smooth central triangular area close to clypeus; with grayish-white pubescence not obscuring integument except glabrous smooth area. Vertex densely micropunctate; area between antennal tubercles and middle of upper eye lobes slightly depressed, tumid, convex from this point to prothoracic margin; with pale yellowish pubescence not obscuring integument (more grayish-white depending on light intensity), shorter, less conspicuous toward prothoracic margin. Area behind eyes densely micropunctate on wide area close to eye, smooth close to prothorax; with pale yellow pubescence on micropunctate area behind upper eye lobe, glabrous on smooth area; with grayish-white pubescence on micropunctate area, slightly longer and denser than area behind upper lobe, glabrous on smooth area. Genae slightly shorter than lower eye lobe; densely micropunctate close to eye, slightly striate centrally, smooth toward apex; with grayish-white pubescence not obscuring integument, glabrous on distal area. Antennal tubercles densely micropunctate except nearly smooth, narrow distal area; pubescence as on frons, but more pale yellow on some areas. Median groove slightly distinct from clypeus to area between lower eye lobes, distinct from this point to area between upper eye lobes, nearly indistinct toward prothoracic margin. Postclypeus narrow, coplanar with frons posteriorly, strongly inclined toward anteclypeus; finely carina-shaped on wide central area; glabrous laterally and narrow central area, with pale yellow bristly pubescence on sides of wide central area; with one long, erect, dark setae on sides of wide central region of posterior area; with long, erect pale yellow setae on sides of inclined area. Labrum large, convex, coplanar with anteclypeus at posterior half, inclined at anterior third; finely, sparsely punctate on central area; with sparse grayish-white pubescence on posterior half, interspersed with a few long, erect dark setae; with sparse golden pubescence on distal half, and fringe of golden setae on anterior margin. Gulamentum smooth, shining, glabrous, with long, erect, sparse dark setae on center of anterior area. Eyes not divided, with area of connection between lobes with one row of ommatidia (some ommatidia absent in row); distance between upper eye lobes 0.46 times length of scape; in frontal view, distance between lower eye lobes about equal to length of scape. Antennae 1.8 times elytral length, reaching elytral apex at middle of antennomere IX. Scape gradually widened toward apex (distal area slightly wider than twice width of basal area); with grayish-white pubescence no obscuring integument (more pale yellow depending on light intensity); without erect setae. Pedicel and antennomeres III–VII with pubescence as on scape, and long, erect, sparse dark setae ventrally (longer, slightly more abundant toward VII). Antennomeres VIII–IX, basal half of X, and basal quarter of XI with fringe of long, erect, dark setae ventrally. Antennal formula (ratio) based on length of antennomere III: scape = 0.94; pedicel = 0.20; IV = 1.13; V = 0.67; VI = 0.53; VII = 0.53; VIII = 0.49; IX = 0.45; X = 0.41; XI = 0.53.

Thorax. Prothorax distinctly wider than long (including lateral tubercle); with narrow constriction anteriorly, distinctly narrowed at posterior fifth; with large, nearly conical tubercle with rounded apex slightly after middle; area between anterior constriction and lateral tubercle slightly rounded. Pronotum in lateral view, nearly horizontal at anterior and posterior sixth, inclined between these areas; posterior margin sinuous; surface densely micropunctate except nearly smooth area close to posterior margin; with pale yellow pubescence not obscuring integument (more grayish-white depending on

light intensity). Sides of prothorax with wide, longitudinal grayish-white pubescent band under lateral tubercle, glabrous on remaining surface. Prosternum with moderately dense grayish-white pubescence on sides of posterior half, sparse, pale yellow on center of posterior half; anterior half glabrous. Prosternal process with sparse pale yellow pubescence. Ventral side of mesothorax with sparse grayish-white pubescence, slightly denser on mesanepisternum and mesepimeron. Ventral side of metathorax with grayish-white pubescence, longer and denser on mesothorax, sparser on



Figs 11-14, *Scopadus charynae* sp. nov., holotype female, habitus: 11, dorsal; 12, ventral; 13, lateral; 14, head, frontal view.



Figs 15-22. *Scopadus charynae* sp. nov., paratypes: 15, dorsal habitus, female (USNM); 16, ventral habitus, female (USNM); 17, metatarsus, dorsal view, female (USNM); 18, metatarsus, lateral view, female (USNM); 19, labels, female (USNM); 20, dorsal habitus, male (PHDC); 21, lateral habitus, male (PHDC); 22, dorsal habitus, female (JLGC). Figures 20 and 21 by Pierre-Henri Dalens; figure 22 by Jean-Louis Giuglaris.

posterocentral area. Scutellum with sparse grayish-white pubescence. Elytra: anterior tubercle large, with slightly oblique, truncate apex; with oblique sulcus from near humerus to near suture before middle (slightly distinct toward humerus); outer side of oblique sulcus margined by wide tumid band; moderately coarsely, sparsely punctate on basal half (punctures denser along oblique sulcus) except smooth inclined area near humerus; distal half nearly smooth; area between oblique sulci with grayish-white pubescence not obscuring integument; with brown pubescence inside oblique sulcus, slightly following along suture, connected with moderately wide, nearly arched band at about middle (this latter widened toward lateral margin); with pale yellow pubescent band adjacent to anterior oblique sulcus, distinct widened, almost covering entire dorsal surface toward arched band (this area reaching lateral margin close to arched band, and with sparse white pubescence dorsally close to arched brown band); glabrous on smooth area close to humerus, with sparse grayish-white pubescence toward middle of inclined area; with nearly golden pubescence from arched brown area to posterior fifth, not reaching lateral margin, except large, irregular central area with brownish pubescence (more distinct on center of dorsal surface), and transverse white pubescent macula laterally near posterior fifth; posterior fifth with sparse brownish pubescence, except yellowish, slightly denser pubescence along suture and close to margins. Apex of anterior tubercle with long, erect, moderately dense dark setae. Legs: femora with grayish-white pubescence not obscuring integument; tibiae with pale yellow pubescence, gradually bristly and interspersed with long, erect setae of same color toward apex; pubescence forming narrow crest along center of dorsal surface.

Abdomen. Ventrites finely, sparsely punctate; with sparse pale yellow pubescence from I to middle of V; with moderately abundant pale yellow pubescence on distal half of V; posterocentral area of V depressed; apex of V slightly rounded.

Males (Figs 20, 21). Resembles female, but with longer antennae.

Dimensions (mm), 1 female. Total length, 7.00; prothoracic length, 1.35; anterior prothoracic width, 1.60; posterior prothoracic width, 1.35; maximum prothoracic width, 1.80; humeral width, 2.30; elytral length, 4.40.

Type material. Holotype female from BOLIVIA, **Beni**: Uyapi (Guanay), X-XI.1992, no collector indicated (MZSP). Paratypes: PERU, **Junín**: Valle de Chanchamayo, female, V.1938, former Tippmann collection (USNM). FRENCH GUIANA, Saül, male (ex larva), 30.VII.2007, Dalens P. H. col. (PHDC); female (ex larva), 20.XII.2007, Dalens P. H. col. (PHDC); female (ex larva), 28.XII.2007, Dalens P. H. col. (PHDC); female (ex larva), 12.VII.2008, Dalens P. H. col. (JLGC).

Additional material, not included as paratypes. BRASIL, **Rondônia**: Ouro Preto do Oeste, male, XI.1983, Becker, Roppa & Silva col. (MNRJ); 5 males, X.1986, O. Roppa, P. Magno & J. Becker col. (MNRJ).

Etymology. The new species is named in honor of our friend Charyn Juliana Micheli (USNM).

Remarks. Based on the eye lobes interconnected by a narrow carina with scattered ommatidia, distal antennomeres with fringe of long setae ventrally, prothorax distinctly wider than long, and elytra without long and erect setae, *S. charynae* differs from *S. ciliatus*, and could be included in a new genus. This is because in *S. ciliatus* the eye lobes are interconnected by a row with 2–3 ommatidia, the pronotum is about as long as wide, distal antennomeres lack fringe of long setae, and the elytra have long and erect setae. However, the existence of a third undescribed species that we know of (which will likely be described in the near future), make those different features linked. In that third species, the eyes and antennae are as in *S. ciliatus*, but the prothoracic shape and absence of long and erect setae on elytra are as in *S. charynae*. We did not examine the males from the former MNRJ collection. However, the only consistent difference in the male figured in Julio & Monné (2001) is the antennae slightly longer. Also, it was possible to see that in nearly all paratypes the pronotum is slightly narrower, and has two circular spots with brownish and sparser pubescence. We assume that these two differences are only variations, especially because the circular spots are slightly indicated in the holotype.

Unfortunately, the specimens listed by Júlio & Monné (2001) were deposited at MNRJ collection, which was entirely destroyed by fire recently. For this reason they were not included as paratypes, but allowed the inclusion of the Brazilian state of Rondônia as a place where the species also occurs.

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