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New species, new synonymies, a new rank, and new records  
in Desmiphorini, Saperdini, and Hemilophini  
(Coleoptera: Cerambycidae: Lamiinae)

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# New species, new synonymies, a new rank, and new records in Desmiphorini, Saperdini, and Hemilophini (Coleoptera: Cerambycidae: Lamiinae)

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**Abstract.** New information is presented for Neotropical Cerambycidae (Coleoptera). *Dolichestola vittipennis* Breuning, 1948 is synonymized with *D. annulicornis* Breuning, 1942, and the species is newly recorded from the Brazilian state of São Paulo. *Dolichestola densepunctata* Breuning, 1942 is newly recorded from Venezuela and Brazil, and the difference between it and *D. annulicornis* is reported. *Mecas skillmani* Santos-Silva and Andrew, **new species**, is described from Mexico (Jalisco). *Pannychella callicera* (Bates, 1881) is illustrated, and notes on the genus and species are provided. *Pannychis* Thomson, 1864 is considered a genus different from *Mecas* LeConte, 1852, and notes on the genus and *P. sericea* Thomson, 1864, **new combination**, are given; therefore, *Mecas* has no subgenera. *Pannychina* Gilmour, 1962 is synonymized with *Dylobolus* Thomson, 1868, and *Pannychina atripennis* (Bates, 1885) is synonymized with *Dylobolus rotundicollis* Thomson, 1868.

**Key words.** Desmiphorini, Hemilophini, longhorned beetles, Saperdini, taxonomy.

**ZooBank registration.** urn:lsid:zoobank.org:pub:DCAB0F19-79E2-462F-B7AB-940BD901237D

## Introduction

*Dolichestola* Breuning, 1942 is a small genus of Desmiphorini including seven species. The species occur only in South America, except *D. densepunctata* Breuning, 1942 which is also known from Panama. Four species were described by Breuning (1942, 1948) and all of them have their identity problematic. This is mostly because the descriptions used intraspecifically variable features, while those that may have allowed their separation were not mentioned. During the process of identifying a specimen from Venezuela, we found problems that forced us to review the descriptions and redescriptions of Stephan Breuning. Consequently, we found a synonymy and a feature that allows us to separate two problematic species described by this author: *D. annulicornis* and *D. densepunctata*.

The tribal placement of *Mecas* LeConte, 1852 is at best questionable. The key in Linsley and Chemsak (1985) separates Phytoeciini (= Saperdini) from Hemilophini in the alternative of couplet “20:” “Abdomen with first four sternites equal or gradually decreasing in length. Episternum of metathorax broad anteriorly, strongly tapering posteriorly,” leading to Phytoeciini; “Abdomen with sternites two to four shorter than others. Episternum of metathorax narrow, gradually tapering posteriorly,” leading to Hemilophini. However, both these features also occur separately or together in Hemilophini, as for example, in some species of *Alampyrus* Bates, 1881. Also, the shape of the metanepisternum in Hemilophini is extremely variable and often does not differ from those in the species of *Mecas*. Furthermore, *Dylobolus* Thomson, 1868, which was considered a subgenus of *Mecas* by Chemsak and Linsley (1973) has the abdominal ventrites 1 and 5 longer than the other ventrites. Souza et al. (2020) considered *Dylobolus* different from *Mecas* and transferred it to Hemilophini: “This group [Hemilophini and

relatives], represented in our phylogenies by clade F, joins representatives of five genera of three tribes, including Hemilophini, Aerenicini, and *Mecas* (*D.*) *rotundicollis*, which is clearly misclassified in the tribe Phytoeciini. Our dataset includes the type genus of Phytoeciini, and strong evidence against these two genera forming a monophyletic group, thus arguing for the need of reclassifying *M. (D.) rotundicollis* in Hemilophini and reducing the taxonomic problem in this clade to the meaning of the tribes Hemilophini and Aerenicini.” Unfortunately, no species of *Mecas* (*Mecas*) were examined by them. It is possible that *Mecas* (*Mecas*) also belongs to Hemilophini. At least morphologically, there are no features to support keeping *Mecas* (*Mecas*) and *Dylobolus* in different tribes. Here, we are describing a new species of *Mecas* (*Mecas*) from Mexico.

## Materials and Methods

Photographs (except those of *Mecas linsleyi* Knull, 1975) were taken in the MZSP with a Canon EOS Rebel T7i DSLR camera, Canon MP-E 65mm 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 stereo-microscope, also used in the study of the specimens.

The species were identified using original descriptions, redescrptions, photographs of the holotypes, and comparisons with specimens of the MZSP collection.

The collection acronyms used in the text are as follows:

**FMNH** Field Museum of Natural History, Chicago, Illinois, USA

**FSCA** Florida State Collection of Arthropods, Gainesville, Florida, USA

**FWSC** Frederick W. Skillman, Jr. collection, Phoenix, Arizona, USA

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

## Results

### Desmiphorini Thomson, 1860

#### *Dolichestola annulicornis* Breuning, 1942

(Fig. 1–10)

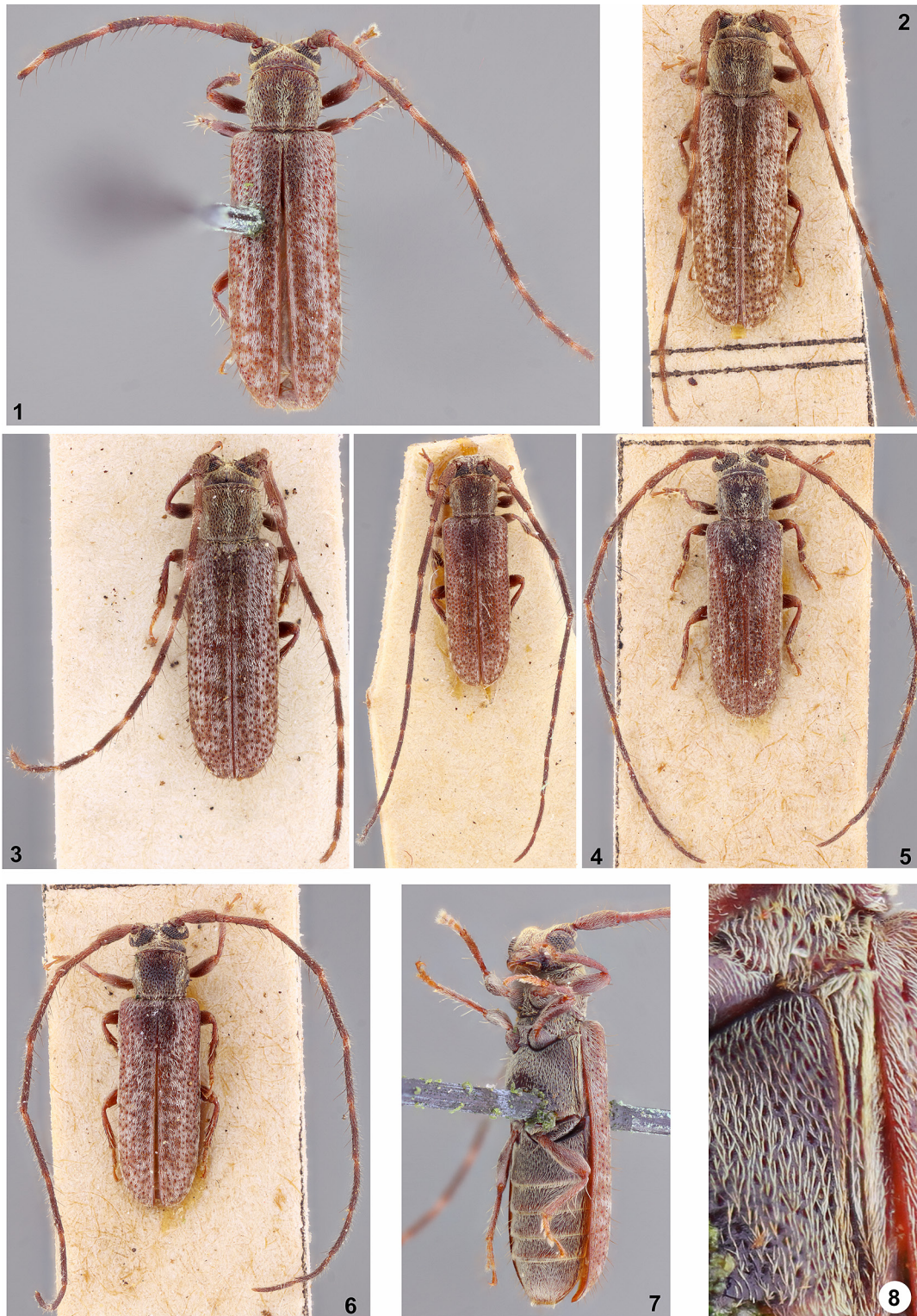
*Dolichestola annulicornis* Breuning 1942: 164; 1963: 510 (cat.); 1974: 123; Monné 1994: 52 (cat.); Monné and Giesbert 1994: 217 (checklist); Monné 2005: 392 (cat.); Monné and Hovore 2006: 244 (checklist); Morvan and Roguet 2013: 25 (distr.); Monné 2022: 659 (cat.).

*Dolichestola vittipennis* Breuning 1948: 26; 1963: 510 (cat.); 1974: 124; Monné 1994: 52 (cat.); Monné and Giesbert 1994: 217 (checklist); Monné 2005: 393 (cat.); Monné and Hovore 2006: 244 (checklist); Monné et al. 2010: 248 (distr.); Monné et al. 2016a: 24 (distr.); Monné et al. 2016b: 353 (distr.); Monné 2022: 660 (cat.). **New synonym.**

Breuning (1942) briefly described *D. annulicornis* based on a single specimen (Fig. 9) from Brazil (Pernambuco) as follows (translated): “Genae very short, head and pronotum very densely, finely punctate, the lateral margins of the lateral tubercles of the pronotum parallel, scutellum quadrangular, the elytra very dense, slightly finely punctate throughout. Red, with straw-colored pubescence, the pronotum and circum-scutellar area of the elytra more finely pubescent, appearing to be darker; antennae dark brown, second segment and base of third to eighth light orange. 3½ mm.” Later, Breuning (1974) redescrbed the species providing the same information but reported that the antennae are twice the body length.

Breuning (1948) described *D. vittipennis* based on a single specimen (Fig. 10) from Brazil (Rio de Janeiro) as follows (translated): “Close to *D. annulicornis* Breuning; it differs from it by the antennae a quarter longer than the body, by the lower lobes of the eyes three times longer than the genae, by the very dense and very fine punctuation of the sterna and the sides of the abdominal segments, as well as by pubescence. Red, covered with a straw-yellow pubescence. This pubescence is very fine on the elytra. The pronotum and the circum-scutellar area of the elytra not appearing darker than the other areas. With two narrow white discal longitudinal bands on each elytron (one right next to the other), fading at the beginning of the fifth apical area. Antennae light red, apical





**Figures 1–8.** *Dolichestola annulicornis* Breuning, 1942. 1–6) Dorsal habitus: 1) Female from Brazil, São Paulo (Amparo); 2) Female from Brazil (São Paulo, São Paulo, Saúde); 3) Female from Brazil (São Paulo, São Paulo, Saúde); 4) Male from Brazil, São Paulo (Amparo); 5) Male from Brazil (São Paulo, São Paulo, Saúde); 6) Male from Brazil (São Paulo, São Paulo, Saúde). 7–8) Female from Brazil, São Paulo (Amparo): 7) Oblique view; 8) Punctuation on the metaventre.

two-thirds of fourth segment and apical three-quarters of subsequent segments covered with dark reddish-brown pubescence. Length: 5 mm. Width:  $1\frac{1}{3}$  mm.”

Currently, *D. annulicornis* is known from French Guiana and Brazil (Pernambuco), and *D. vittipennis* remains known only from Brazil (Rio de Janeiro) (Monné 2022; Tavakilian and Chevillotte 2021).

Comparing a series of specimens identified as *D. vittipennis* from MZSP (Fig. 1–6), it is possible to see that the differences between the two species pointed out by Breuning (1948; 1974) are just intraspecific variations. The elytral pubescence may or may not form longitudinal bands, which can be observed in specimens collected at the same place and on the same date; the antennal length is slightly variable in males and females, but in males identified as *D. vittipennis* from southeastern Brazil they do not differ in length from those of the holotype of *D. annulicornis* (the holotype of the former is without the right antenna and has only the basal segments of the left antenna—it may or may not be a female, which would explain the short antennal length reported in the original description). Additionally, Breuning (1948; 1974) affirmed that *D. vittipennis* differs from *D. annulicornis* by having the lower eye lobes three times longer than the genae, but he never provided a comparison of them in the latter, only affirming that the genae are very short. However, although the genal length is slightly variable in the specimens examined by us, the genae are always very short, usually about three times shorter than the lower eye lobe. Furthermore, the punctures on the ventral surface of the thorax and abdomen cannot be described as very fine in specimens from southeastern Brazil (Fig. 7–8). It is important to note that Breuning (1974) separated these species in his key as follows (translated): “Two longitudinal and narrow pubescent bands on each elytron,” leading to *D. vittipennis*; “Elytra without these bands,” leading to *D. annulicornis*. As was reported above, this feature is variable in *D. annulicornis*.

Therefore, as we could not find a true difference between *D. annulicornis* and *D. vittipennis*, and both holotypes share similar proportions between prothorax and elytra, we consider the latter as a junior synonym of the former.

**Material examined.** BRAZIL, SÃO PAULO (**new state record**): Barueri, 1 male (MZSP 49860), 21.XI.1951, K. Lenko leg. (MZSP); Amparo, 4 males (MZSP 49861; MZSP 49868; MZSP 49870; MZSP 49875), 1 female (MZSP 49864), no date and collector indicated (MZSP); São Paulo (Saúde), 1 male (MZSP 49877), 6.XII.1914, Melzer leg. (MZSP); 2 females (MZSP 49869; MZSP 49871), 5.XII.1915, no collector indicated (MZSP); 1 male (MZSP 49867), 9.I.1916, Melzer leg. (MZSP); 1 male (MZSP 49874), 1.XII.1918, Melzer leg. (MZSP); 1 female (MZSP 49878), 7.XII.1918, Melzer leg. (MZSP); 1 male (MZSP 49876), 21.XII.1918, Melzer leg. (MZSP); 1 female (MZSP 49863), 11.XII.1921, no collector indicated (MZSP); 1 male (MZSP 49872), 1 female (MZSP 49873) 14.I.1923, Melzer leg. (MZSP); 1 female (MZSP 49862), 28.I.1923, Melzer leg. (MZSP); 1 female (MZSP 49879), 25.XII.1923, Melzer leg. (MZSP); (Jabaquara), 1 male (MZSP 49866), 6.XII.1941, Nick leg. (MZSP); (Mata do Governo), 1 male (MZSP 49865), 16.XII.1918, no Melzer leg. (MZSP).

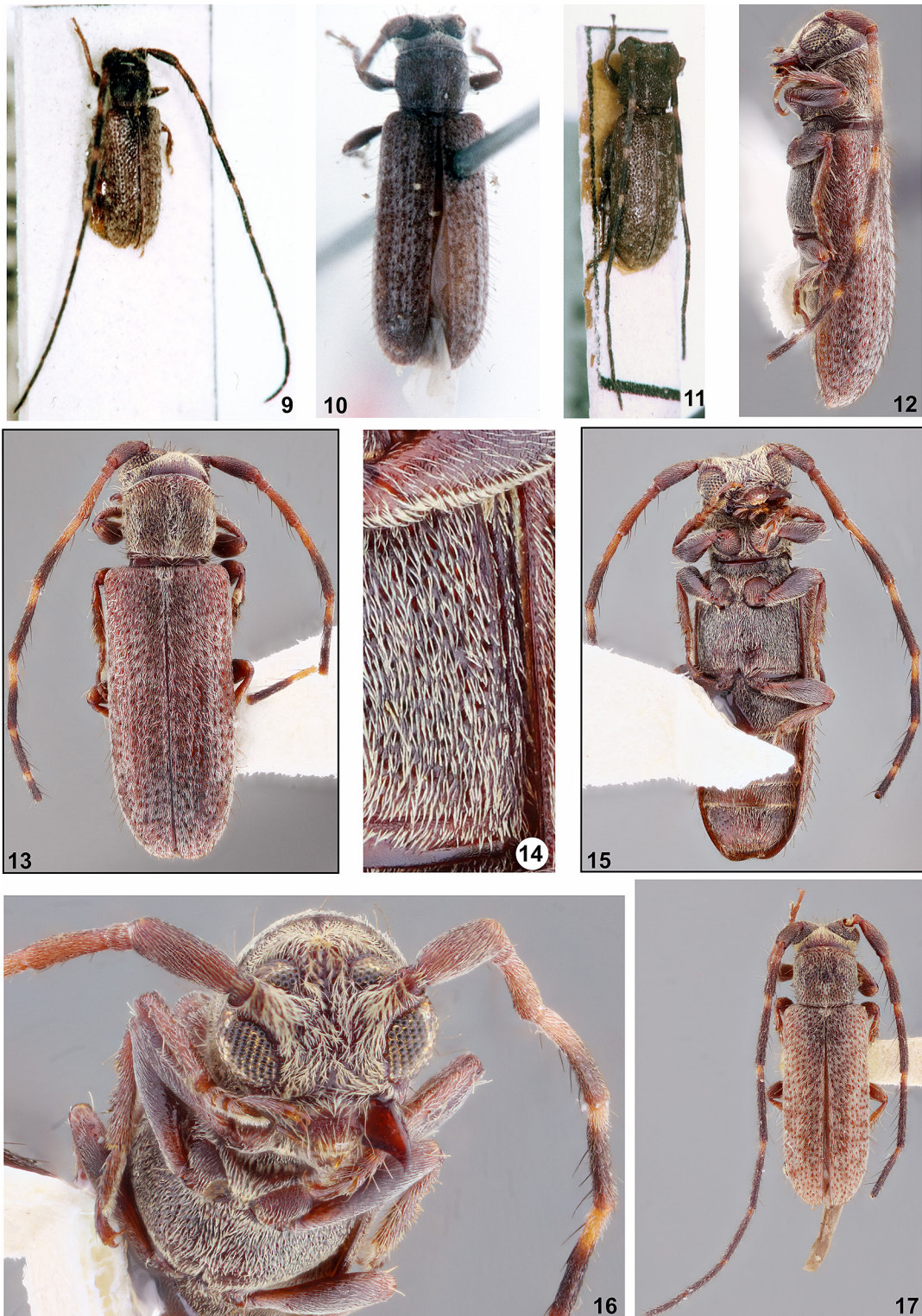
### ***Dolichestola densepunctata* Breuning, 1942**

(Fig. 11–17)

*Dolichestola densepunctata* Breuning 1942: 165; 1974: 124; Monné 1994: 52 (cat.); Monné and Giesbert 1994: 217 (checklist); Monné 2005: 393 (cat.); Monné and Hovore 2006: 244 (checklist); Wappes et al. 2006: 29 (distr.); Touroult et al. 2010: 32; Dalens and Touroult 2010: 46 (distr.); Morvan and Roguet 2013: 25 (distr.); Monné 2022: 659 (cat.).

Breuning (1942) briefly described *D. densepunctata* based on a single specimen from French Guiana (Fig. 11) as follows (translated): “Very close to my *annulicornis*, but the head extremely fine [finely punctate], the pronotum extremely densely punctate; the pubescence finer, forming narrow longitudinal bands on the elytra. 5 mm.” However, the punctures on the pronotum are very similar to those in examined specimens of *D. annulicornis*, which are slightly variable especially in the density, and, apparently, are equal or nearly so also in the holotypes of *D. densepunctata* and the latter. Breuning (1974) translated the original description into French, and separated *D. densepunctata* from *D. annulicornis* and *D. vittipennis* by the sculpturing of the pronotum: pronotum extremely finely punctate, leading to *D. densepunctata*; and pronotum finely punctate, leading to *D. annulicornis* and *D. vittipennis*. This information in the key may suggest that the shape of the punctures is distinctly different, which is not true. In fact, the only reliable difference between *D. densepunctata* and *D. annulicornis* is the proportion between the length of the prothorax and elytra. In *D. densepunctata*, the elytra are proportionally shorter in both





**Figures 9–17.** *Dolichestola* spp. **9)** *Dolichestola annulicornis* Breuning, 1942, holotype male, by Jesus Santiago Moure. **10)** *Dolichestola vittipennis* Breuning, 1948, holotype, by Jesus Santiago Moure. **11)** *Dolichestola densepunctata* Breuning, 1942, holotype male, by Jesus Santiago Moure. **12–16)** *Dolichestola densepunctata*, female from Venezuela. **12)** Lateral habitus. **13)** Dorsal habitus. **14)** Punctuation on the metaventre. **15)** Ventral habitus. **16)** Head, frontal view. **17)** *Dolichestola densepunctata*, male from Brazil (Pará), dorsal habitus.

sexes (Fig. 11, 13, 17), while they are proportionally longer in both sexes of *D. annulicornis* (Fig. 1–6, 9, 10). The punctures on the metaventricle are also very similar in the two species (Fig. 8, 14).

Currently, *D. densepunctata* is known from Panama, Bolivia (Santa Cruz), and French Guiana (Tavakilian and Chevillotte 2021; Monné 2022).

**Material examined.** VENEZUELA (**new country record**), MONAGAS: 7 km N Maturin, 200', 1 female, I.VIII.1988, C.W. and L. O'Brien leg. (FSCA, formerly ACMT). BRAZIL (**new country record**), PARÁ: Tapereinha, 1 male (MZSP 49859), no date and collector indicated (MZSP).

### Saperdini Mulsant, 1839

#### *Mecas skillmani* Santos-Silva and Androw, new species

(Fig. 18–21)

**Description. Holotype female.** Integument mostly dark brown; posterior area of vertex reddish brown, except brownish median groove; palpi yellowish brown, except brownish maxillary palpomere IV and labial palpomere III; anteclypeus dark reddish brown; pronotum with wide reddish-brown band centrally, from base to apex, except blackish elongated band centrally; epipleural margin of elytra light reddish brown; femora light reddish brown; protibiae dark brown dorsally, reddish laterally and ventrally; mesotibiae dark brown dorsally, dark reddish brown laterally, light reddish brown ventrally, except blackish apex of lateral and ventral surfaces; metatibiae dark brown dorsally and laterally, dark reddish brown ventrally on anterior  $\frac{2}{3}$ , dark brown on posterior third; tarsal claws dark reddish brown.

**Head.** Frons finely, abundantly punctate; with dense yellowish-white pubescence close to clypeus and eyes, dense yellowish-brown pubescence from middle to vertex, and dense pale yellowish pubescence between these two pubescent areas; with long, erect, abundant brown setae throughout. Area between antennal tubercles and eyes with dense yellowish-white pubescence. Antennal tubercles finely, abundantly punctate; with yellowish-brown pubescence and yellowish-white pubescence interspersed basally, brown, not obscuring integument on remaining surface. Vertex coarsely, abundantly punctate; with dense yellowish-brown pubescence, not obscuring punctures laterally, yellower, partially obscuring punctures centrally, except glabrous area close to prothorax; with long, erect brown setae on pubescent area, slightly more abundant laterally. Median groove distinct, glabrous, smooth from clypeus to prothorax. Area behind upper eye lobes coarsely, abundantly punctate; with yellowish-brown pubescence partially obscuring integument close to eye, glabrous close to prothorax. Area behind lower eye lobes tumid close to eye; moderately coarsely and abundantly punctate throughout; tumid area with yellowish pubescence close to upper eye lobe, yellowish-white on remaining surface; with short, erect brownish setae interspersed on tumid area; glabrous close to prothorax. Genae with dense yellowish-white pubescence, and short, erect brownish setae interspersed. Anterior area of gulamentum with a few bristly yellowish-white setae. Postclypeus finely, abundantly punctate; with dense yellowish-white pubescence, slightly yellower centrally, and long, erect setae of same color interspersed. Labrum coplanar, smooth, glabrous close to anteclypeus; remaining surface inclined, concave, finely, abundantly punctate, with white pubescence not obscuring integument and long, erect yellowish setae interspersed. Outer side of mandibles with dense yellowish-white pubescence and long, erect setae of same color interspersed on basal  $\frac{2}{3}$ , smooth, glabrous on posterior third. Distance between upper eye lobes 0.34 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.54 times distance between outer margins of eyes. Antennae 1.4 times elytral length, reaching elytral apex at base of antennomere XI. Scape finely, densely punctate; with brownish pubescence not obscuring integument dorsally, and dense yellowish-white pubescence on remaining surface; with long, erect, sparse brownish setae interspersed dorsally, and long, erect, sparse yellowish-white setae interspersed ventrally. Pedicel and antennomeres III–XI with brownish pubescence dorsally, and yellowish-white pubescence ventrally; antennomeres VI–XI with yellowish-white pubescence basally on dorsal surface; pedicel and antennomeres III–V with long, erect, sparse brown setae ventrally (setae gradually sparser toward V); antennomeres III–X with long brown setae on dorsal apex (setae gradually shorter and sparser toward X); antennomere XI with short yellowish setae directed forward on apex. Antennal formula based on length of antennomere III: scape = 0.69; pedicel = 0.21; IV = 1.00; V = 0.79; VI = 0.76; VII = 0.68; VIII = 0.63; IX = 0.60; X = 0.54; XI = 0.57.





**Figures 18–24.** *Mecas* spp. 18–21) *Mecas skillmani* sp. nov., holotype female. 18) Dorsal habitus. 19) Ventral habitus. 20) Lateral habitus. 21) Head, frontal view. 22–24) *Mecas linsleyi* Knoll, 1975, holotype male. 22) Dorsal habitus. 23) Ventral habitus. 24) Lateral habitus. Figures 22–24 by Stephanie Ware.

**Thorax.** Prothorax slightly wider than long; sides slightly rounded centrally. Pronotum slightly carina-shaped centrally, from base to apex; with narrow transverse sulcus close to anterior and posterior margins; coarsely, abundantly punctate, except smooth blackish elongated central band, and oblique band on each side of central region, which are almost smooth anteriorly and posteriorly, and abundantly punctate centrally; reddish-brown central band with abundant yellowish-brown pubescence partially obscuring integument, except yellowish-white pubescence surrounding blackish central band; blackish central band and anterior and posterior regions of oblique lateral bands glabrous; remaining surface with abundant, short yellowish-brown pubescence not obscuring integument, except yellowish-white pubescence on sides of anterior and posterior transverse sulcus, and pale yellow pubescence between posterior sulcus and posterior margin, with long setae of same color directed backward; with long, erect yellowish-brown setae throughout. Sides of prothorax coarsely, abundantly punctate, except smooth, narrow area close to anterior and posterior margins; with abundant yellowish-brown pubescence close to pronotum, gradually yellowish-white toward prosternum, both partially obscuring integument; with long, erect, sparse yellowish-brown setae interspersed. Prosternum coarsely, moderately abundantly punctate; with dense yellowish-white pubescence partially obscuring integument, with yellowish-brown pubescence interspersed centrally. Prosternal process almost laminiform centrally, triangular on posterior half; with abundant yellowish-white pubescence obscuring integument, and long, erect setae of same color interspersed on posterior half. Ventral surface of meso- and metathorax with abundant grayish-white pubescence, distinctly denser laterally; with long, erect setae of same color interspersed. Mesoventral process gradually narrowed toward apex. Scutellum with abundant pale-yellow pubescence basally, yellowish-white on remaining surface. **Elytra.** Coarsely, abundantly punctate on basal half, punctures gradually finer, slightly sparser on posterior half; sutural and epipleural margins tumid, gradually less so toward apex; with abundant yellowish-brown pubescence not obscuring integument, except yellow pubescence on sutural and epipleural margins, pubescence gradually paler toward apex; with long, erect, moderately abundant brownish setae throughout. **Legs.** Femora with abundant yellowish-white pubescence not obscuring integument, whiter depending on light intensity, and long, erect setae of same color interspersed, especially ventrally. Protibiae with yellowish-white pubescence not obscuring integument dorsally and laterally, yellowish and bristly ventrally, and long, erect yellowish-white setae interspersed dorsally. Mesotibiae with abundant yellowish-white pubescence not obscuring integument, whiter depending on light intensity, except short, thickened, abundant yellowish-brown band of setae laterally, from about basal quarter to near apex, where it is inclined toward dorsal surface; apex with fringe of thick yellowish-brown setae; with long, erect yellowish-white setae interspersed. Metatibiae with abundant, mostly yellowish-white pubescence not obscuring integument, and short yellowish-brown setae interspersed, except posterior third with bristly, thick yellowish-brown setae; apex with fringe of thick yellowish-brown setae; with long, erect yellowish-white setae interspersed. Metatarsomere I longer than II–III together.

**Abdomen.** Ventrites with dense grayish-white pubescence obscuring integument. Apex of ventrite 5 deeply notched centrally.

**Dimensions (mm).** Total length, 10.70; prothoracic length, 1.60; anterior prothoracic width, 1.65; posterior prothoracic width, 1.70; maximum prothoracic width, 1.75; humeral width, 2.45; elytral length, 7.50.

**Type material.** Holotype female from MEXICO, JALISCO: MX525, 2 km S MX70, 20.35577°N, 104.58041°W, 3.VII.2018, F. Skillman and J.F. Limon leg. (FSCA, formerly FWSC).

**Etymology.** The new species is dedicated to Frederick W. Skillman, one of the collectors of the holotype.

**Remarks.** *Mecas skillmani* new species is similar to *M. linsleyi* Knull, 1975 (Fig. 22–24), but differs as follows: body slender; ommatidia slightly coarser (Fig. 20); lower eye lobes longer than genae (Fig. 21); pronotum with wide and oblique band on each side of the central region (Fig. 18); and pronotum with wide reddish-brown band centrally from base to apex (18). In males and females of *M. linsleyi*, the body is stouter, ommatidia slightly finer (Fig. 24), lower eye lobes as long as genae (Fig. 24), pronotum with two circular spots on each side of the central region (Fig. 22), and pronotum and sides of prothorax orangish brown on anterior half or more (Fig. 22, 24). It is also similar to *M. marginella* LeConte, 1873 (see photographs on Bezark 2022), but differs by the more slender and longer body (shorter and stouter in *M. marginella*), and presence of a central smooth area and mostly smooth oblique areas on the pronotum (absent in *M. marginella*); it differs from *M. menthae* Chemsak and Linsley, 1973 (see photograph on Bezark 2022) by the longer and more slender body (shorter and stouter in *M. menthae*), and



sides of the pronotum with an oblique band on each side (small and circular in *M. menthae*); and from *M. pergrata* (Say, 1824) (see photograph on Bezark 2022) by the body longer and more slender (shorter and stouter in *M. pergrata*), and by the pronotum with an oblique band on each side (with two circular spots obliquely placed on each side of the pronotum in *M. pergrata*).

### ***Pannychella callicera* (Bates, 1881)**

(Fig. 25, 30)

*Pannychis callicerus* Bates 1881: 206; Aurivillius 1923: 599 (cat.).

*Pannychis callicera*; Blackwelder 1946: 626 (checklist).

*Hemilophus callicerus*; Lameere 1883: 77 (cat.).

*Pannychella callicera*; Gilmour 1962: 138; 1965: 646 (cat.); Chemsak et al. 1992: 161 (cat.); Monné 1995: 70 (cat.); Noguera and Chemsak 1996: 408 (cat.); Martins and Galileo 1998: 128; Monné and Giesbert 1994: 293 (checklist); Monné 2005: 618 (cat.); Monné and Hovore 2006: 291 (checklist); Monné 2022: 1061 (cat.).

**Remarks.** Gilmour (1962) described *Pannychella* to include *Pannychis callicerus* Bates, 1881 (Fig. 25). Apparently, he did not examine the holotype because his description of the genus and redescription of the species appear to be based on the description by Bates (1881).

Bates (1881) separated *Pannychis callicerus* from *Pannychis ducalis* Bates, 1881 (synonymized with *Mecas* (*Pannychis*) *sericea* (Thomson, 1864) by Chemsak and Linsley (1973)) by the prothorax slightly widened after middle (broadly dilated centrally in *P. ducalis*), elytral apex slightly sinuous, the tawny elytral band not reaching scutellum, the presence of yellowish spots on center of abdominal ventrites 3 and 4, and the antennomere yellowish about basal half. Comparing photographs of type specimens of *Pannychis ducalis* with the holotype of *Pannychis callicerus*, apparently, the shape and pubescence on the antennomere III in the latter appears to be different from those in former. However, we do not know if this is just due to the angle of the photographs.

As seen above, Gilmour (1962) reported that the antennae in females of *Pannychella* are slightly shorter than the elytra. However, Bates (1881) reported that they are short, and it is possible to see in the photograph of the holotype that they are distinctly shorter than the body. The elytra are bicarinate in *Mecas* (*Pannychis*) *sericea* and *Pannychella callicera*. Therefore, the only reliable differences between *Pannychis* and *Pannychella* would be the prothoracic and elytral apex shapes (respectively, Fig. 32 and 30).

The descriptions, redescrptions, and photographs of the types do not allow us to be sure if *Pannychella* is a junior synonym of *Mecas* (*Pannychis*). However, without a doubt, it does not belong to Aerenicini as indicated by Martins and Galileo (1998).

### ***Pannychis sericea* Thomson, 1864, new combination**

(Fig. 26–27, 31–32)

*Pannychis sericeus* Thomson 1864: 127; Lacordaire 1872: 890; Thomson 1878: 15 (type); Bates 1881: 205 (distr.); Gilmour 1962: 137; Lane 1974: 363.

*Hemilophus sericeus*; Gemminger 1873: 3210 (cat.).

*Mecas* (*Pannychis*) *sericea*; Chemsak and Linsley 1973: 151; Chemsak et al. 1992: 153 (cat.); Monné and Giesbert 1994: 276 (checklist); Noguera and Chemsak 1996: 407 (cat.); Monné 2005: 618 (cat.); Monné 2022: 1060 (cat.).

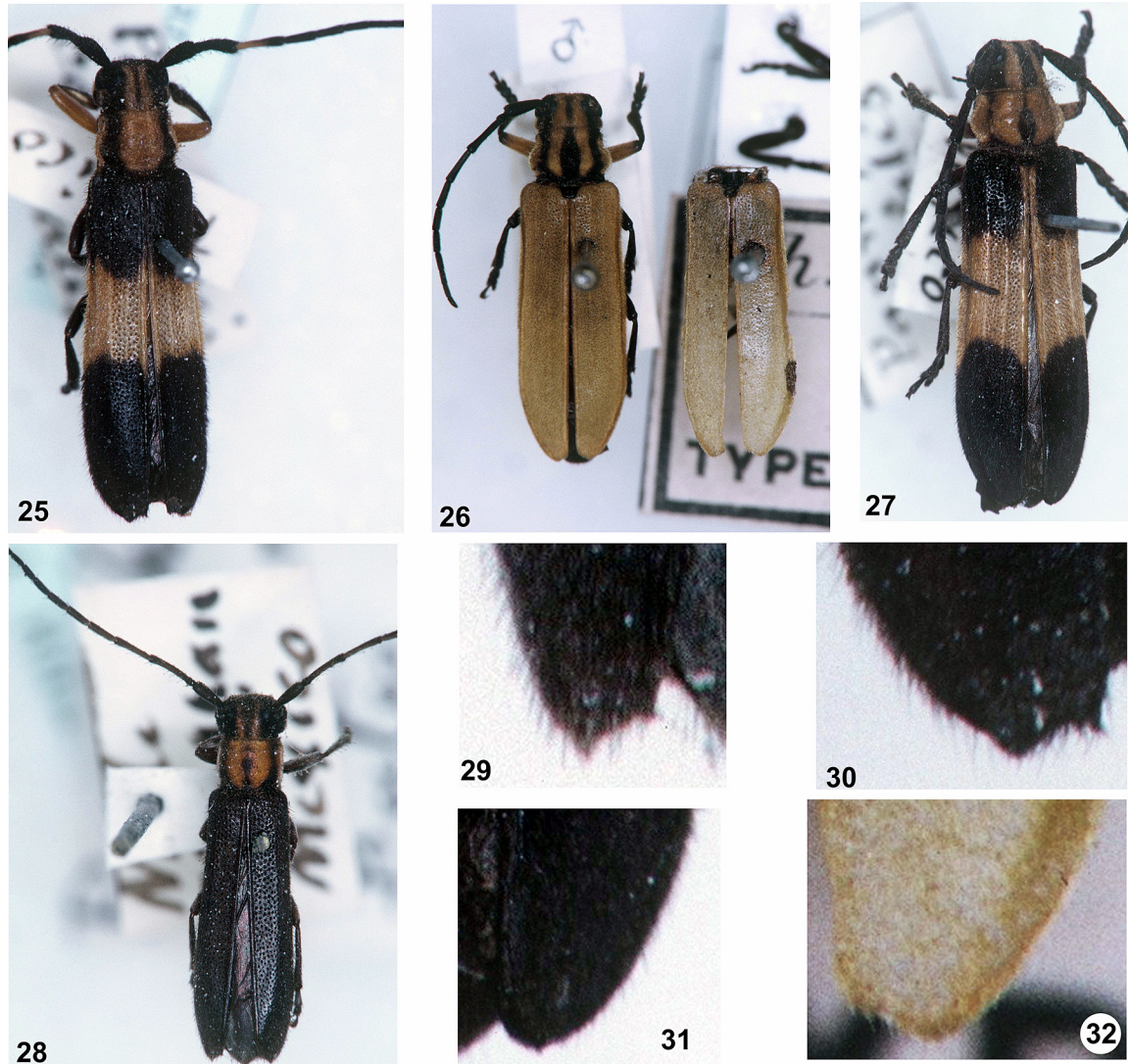
*Mecas* (*Pannychis*) *sericeus*; Monné 1995: 40 (cat.); Monné and Hovore 2006: 289 (checklist); Noguera et al. 2012: 622 (distr.).

*Pannychis ducalis* Bates 1881: 205; Gilmour 1962: 137; Lane 1974: 364.

*Hemilophus ducalis*; Lameere 1883: 77 (cat.).

**Remarks.** Chemsak and Linsley (1973) considered *Pannychis* Thomson, 1864 as a subgenus of *Mecas* LeConte, 1852. However, they did not explain their reasons to change the status of *Pannychis*. Comparing the species currently included in *Mecas* with *Pannychis sericea*, we think that this change is unwarranted. The features pointed out by them in the alternative of couplet “1” are more than enough to keep *Mecas* and *Pannychis* as distinct genera: “Pronotum with sides rounded or subparallel; elytra not expanded apically behind middle; appearance not lyciform,” leading to *Mecas*; “Pronotum with sides obtusely produced at middle; elytra expanding slightly toward apices; integument yellow and black [not useful to separate the genera]; appearance lycid-like,” leading





**Figures 25–32.** *Pannychis* and *Pannychina* spp. 25) *Pannychis callicera* Bates, 1881, holotype female. 26) *Pannychis sericea* Thomson, 1864, left side, not type, identified as male, right side, holotype. 27) *Pannychis ducalis* Bates, 1881, type. 28) *Pannychina atripennis* (Bates, 1885), holotype. 29–32) Elytral apex: 29) *Pannychis atripennis*, holotype; 30) *Pannychis callicera*, holotype female; 31) *Pannychis ducalis*, type; 32) *Pannychis sericea*, holotype. All by Jesus Santiago Moure.

to *Pannychis*. Therefore, we consider *Pannychis* as a distinct genus. Comparing the photograph of the holotype of *Pannychis sericea* (Fig. 26), which is seriously damaged, with a type specimen of *Pannychis ducalis* (Fig. 27), the proportions between the prothorax and elytra appear to be different (prothorax missing from the holotype of the former, but it is possible to use the photograph of another specimen next to it in the same photograph). Therefore, we are not sure if the synonymy proposed by Chemsak and Linsley (1973), was correct. It will be necessary to study a large number of specimens to check for eventual morphological differences other than the color.

*Pannychis* is a goddess of Greek mythology. Therefore, *Pannychis* is feminine gender and thus, the correct spelling is *Pannychis sericea* and not *Pannychis sericeus* as used by Thomson (1864). Although it is more probable that this genus belongs to Hemilophini, it is provisionally kept in Saperdini until further studies are carried out.

## Hemilophini Thomson, 1868

### *Dylobolus* Thomson, 1868

*Dylobolus* Thomson 1868: 195; Lacordaire 1872: 900; Souza et al. 2020: 8, 14.

*Mecas* (*Dylobolus*); Chemsak and Linsley 1973: 153; Monné 1995: 40 (cat.); Linsley and Chemsak 1995: 205; Monné 2005: 617 (cat.); Monné and Hovore 2006: 289 (checklist); Monné 2012: 116; Monné 2022: 778 (cat.).

*Pannychina* Gilmour 1962: 127, 138; Lane 1974: 364; Martins 1984: 325; Martins and Galileo 1998: 128; Monné 1995: 70 (cat.); Monné 2005: 619 (cat.); Monné and Hovore 2006: 291 (checklist); Monné 2012: 116; 2022: 1061 (cat.). **Syn. nov.**

### *Dylobolus rotundicollis* Thomson, 1868

(Fig. 28–29)

*Dylobolus rotundicollis* Thomson 1868: 196.

*Mecas ruficollis* Horn 1878: 44.

*Mecas laticeps* Bates 1881: 204.

*Mecas mexicana* Bates 1881: 204.

*Mecas vitticollis* Casey 1913: 363.

*Pannychis atripennis* Bates 1885: 427; Aurivillius 1923: 599 (cat.); Blackwelder 1946: 626 (checklist). **New synonym.**

*Pannychina atripennis*; Gilmour 1962: 138; 1965: 646 (cat.); Chemsak et al. 1992: 161 (checklist); Monné and Giesbert 1994: 293 (checklist); Monné 1995: 70 (cat.); Martins and Galileo 1998: 128; Monné 2005: 619 (cat.); Monné and Hovore 2006: 291 (checklist); Monné 2022: 1061 (cat.).

*Pannychella atripennis*; Noguera and Chemsak 1996: 408 (cat.; wrong genus).

Note: For full references on *Dylobolus rotundicollis* see Monné (2022), Tavakilian and Chevillotte (2021), and Monné and Nearn (2022).

**Remarks.** Thomson (1868) described *Dylobolus* to include *D. rotundicollis* Thomson, 1868 (translated): “Body elongated, cylindrical; frons convex; antennae simple, slender, slightly surpassing middle of the body, 11-segmented, scape short, subclavate, antennomere III the longest, IV slightly longer than V, VI–XI gradually shorter; prothorax quadrate, rounded laterally, without lateral tubercles; elytra cylindrical, elongated, apex obliquely lunate; prosternal process and mesoventral process laminiform; legs short, robust, subequal; tarsal claws slightly divergent, very bidentate basally.” Bates (1881) considered *Dylobolus* as a junior synonym of *Mecas*. Later, Chemsak and Linsley (1973) revalidated *Dylobolus* and considered it as a subgenus of *Mecas*. As mentioned in the introduction, Souza et al. (2020) considered *Dylobolus* as a genus different from *Mecas*.

Gilmour (1962) described *Pannychina* in Aerenicini to include *Pannychis atripennis* Bates, 1885: “Elongate, subcylindrical. Frons subquadrate. Prothorax subcylindrical, not rotundate laterally. Antennae slightly shorter than body, basal segments fringed beneath. Elytra smooth, not costate; apices obliquely truncate against the suture. Mesotibiae without a dorsal sulcus; tarsal claws fissile.” Martins and Galileo (1998), based on the opinion of Lane (1974), transferred *Pannychina* to Phytoeciini.

The definition of *Mecas* (*Dylobolus*) by Chemsak and Linsley (1973) suggests that *Pannychina atripennis* is just one of the variations of *Dylobolus rotundicollis*. The shape of the prothorax in *P. atripennis*, not rounded laterally, probably is just a variation, since there are specimens of *D. rotundicollis* with the prothorax not distinctly rounded laterally. Based on the photographs of the types of both species at our disposal, original descriptions, and redescriptions, and synonymies proposed by Chemsak and Linsley (1973), *Pannychis atripennis* (= *Pannychina atripennis*) is also a junior synonym of *Dylobolus rotundicollis*. In fact, comparing the photograph of the holotype of *Mecas vitticollis* Casey, 1913 (see Lingafelter et al. 2022) with the holotype of *Pannychis atripennis* (Fig. 29), it is possible to see that they are nearly identical, although the sides of the prothorax are slightly more rounded in the former. This reinforces that this feature used by Gilmour (1962) in *Pannychina* is just a morphological variation in *D. rotundicollis*. Therefore, *Pannychina* is a junior synonym of *Dylobolus*, currently, a genus allocated in Hemilophini, because their type species are synonyms (each of these genera has only the type species included in it).

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