

The Cerambycidae (Coleoptera) in the James Cope Collection: Taxonomic notes, new synonymy, and new species from the Neotropical region

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Abstract. Notes on the variation in specimens of *Appula melancholica* Gounelle, 1909 (Cerambycinae, Elaphidiini) are provided and the holotype of *Appula argenteoapicalis* Fuchs, 1961 is illustrated for the first time. *Heterachthes lateralis* Martins, 1962 is synonymized under *Heterachthes nigrocinctus* Bates, 1872, and *Neocompsa aspasia* Martins, 1974 is recorded from Mexico (Oaxaca) (Cerambycinae, Tropicini, Compsina). Notes on *Astylopsis* Casey, 1913 (Lamiinae, Acanthocinini) are provided, and an updated key to species of the genus is presented. Additionally, two new species are described in Acanthocinini: *Astylopsis ziczac* sp. nov., from Mexico (Chiapas); and *Polymitoleiopus schmidi* sp. nov., from Paraguay.

INTRODUCTION

The proper delimitation of species in Cerambycidae often depends on the reevaluation of type material, critical comparison with original descriptions, and the direct examination of additional specimens. Even in apparently well-established taxa, new observations may reveal poorly documented morphological variation, misidentifications perpetuated in the literature, or taxonomic relationships that had not previously been recognized. In this context, focused taxonomic contributions based on newly examined material remain essential for refining knowledge of the group.

During the study of Neotropical material from CSCA (see below), morphological variation was observed in specimens attributed to *Appula melancholica* Gounelle, 1909 that deserves documentation and comparison with material previously illustrated in the literature. Within the same genus, the holotype of *A. argenteoapicalis* Fuchs, 1961, which has not previously been illustrated, is figured here for the first time, contributing to a better characterization of the species.

Within Cerambycinae, Tropicini, Compsina, the comparative examination of specimens and diagnostic features indicates that *Heterachthes lateralis* Martins, 1962 does not represent a distinct specific entity and is here synonymized under *Heterachthes nigrocinctus* Bates, 1872. In addition, *Neocompsa aspasia* Martins, 1974 is recorded from Mexico for the first time, expanding the known distribution of the species.

In Lamiinae, Acanthocinini, observations on the genus *Astylopsis* Casey, 1913 are presented, together with an updated key to the known species. During the study of this material, an undescribed species from southern Mexico was recognized and is described herein. In addition, a new species of *Polymitoleiopus* Lepesme & Breuning, 1955 is described from Paraguay.

MATERIAL AND METHODS

Photographs were taken with a Canon EOS TD Mark II camera, Canon MP-E 65mm f/2.8 1-5X macro lens; specimens were illuminated with Dome of light (RK Science Factory, Brazil). Measurements were taken in “mm.”

References on known species and genera are restricted to the original descriptions; for full references see Monné (2024a, b) and Tavakilian & Chevillotte (2025). In “Material examined,” only the specimen used to establish the new record is listed.

The collection acronyms used in the text are as follows:

CSCA - California State Collection of Arthropods, Plant Pest Diagnostics Branch, California Department of Food and Agriculture, Sacramento, USA;

LGBC - Larry G. Bezark Collection, Sacramento, California, USA;

MCZN - Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA;

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

SMFD - Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt-am-Main, Germany.

RESULTS

CERAMBYCINAE Latreille, 1802

ELAPHIDIINI Thomson, 1864

Appula Thomson, 1864

Appula melancholica Gounelle, 1909

(Figs. 1-8)

Appula melancholica Gounelle, 1909: 650.

Material examined: PERU, *Madre de Dios*: Rio Tambopata Reserve, 30 air km SW of Puerto Maldonado, 290 m, 1 ♀, 1-26 November 1982, Edward S. Ross leg., (CSCA); BRAZIL, *Mato Grosso*: Chapada, 1 ♀ (MZSP 69907) no more data, (MZSP).

Remarks. Although this species has already been recorded from Peru by Franceschini (2002), we consider it appropriate to present photographs of a female (Figs. 1-6) from that country showing some features that differentiate it from specimens of the same species (Figs. 7-8) we examined from Brazil (Mato Grosso), as well as from the syntype illustrated by Bezark (2026) and the specimen illustrated by Franceschini (2002). Gounelle (1909) had already noted in the original description that the pattern of elytral pubescence is variable



Figs. 1-8. *Appula melancholica* Gounelle, 1909: 1-6: Female from Peru: 1- Dorsal habitus; 2- Ventral habitus; 3- Lateral habitus; 4- Latero-oblique habitus; 5- Head, frontal view; 6- Apex of profemur. 7-8: Female from Brazil (Mato Grosso, Chapada): 7- Dorsal habitus; 8- Apex of profemur.

— “fasciis maculisque fuscis variatim dispositis decorata [adorned with dark bands and maculae variably arranged].” This variation also dependent on the intensity of the light and the viewing angle of the specimen (see, for instance, figures 1 and 4 showing two viewing angles of the same specimen). However, the female from Peru examined by us has the prothorax proportionally shorter and wider than in other specimens we studied, either

directly or through photographs. Furthermore, the inner apical spine of the profemora in the Peruvian specimen (Fig. 6) is longer than in the Brazilian specimens we have examined (Fig. 8). Nevertheless, we have observed that these two features may vary in other species of the genus, as we have been able to verify in the species available to us. As no distinguishing features were found to separate the two groups of specimens, we consider them to belong to the same species, *A. melancholica*, and considered the observed differences as intraspecific variation.

***Appula argenteoapicalis* Fuchs, 1961**

(Fig. 9)

Appula argenteoapicalis Fuchs, 1961: 8.

Remarks. During the process of identifying the Peruvian specimen mentioned above, we observed that the holotype of *A. argenteoapicalis* had never been illustrated. Our friend Herbert Schmid kindly sent us a photograph of the specimen. We consider it appropriate to include it here to facilitate future identifications.

TROPIDINI Martins & Galileo, 2007

COMPSINA Martins & Galileo, 2007

***Heterachthes* Newman, 1840**

***Heterachthes nigrocinctus* Bates, 1872**

(Figs. 10-13)

Heterachthes nigrocinctus Bates, 1872: 182.

Heterachthes lateralis Martins, 1962: 295 **syn. nov.**

Material examined: COSTA RICA, *Cartago*: Turrialba, 1 ♀, no more data, (MZSP); *Guanacaste*: 8 km W Bagaces, 1 ♀, 25.VI.1992, Jim Cope leg., (CSCA); COLOMBIA, *Magdalena*: Parque Tayrona, 21 mi. E. Sta. Marta, 1 ♂, 17.V.1973, Howden & Campbell leg., (MZSP); Aracataca, 1 ♂, no more data, (MZSP).

Remarks. Martins (1970b) reported that one specimen of *H. nigrocinctus* examined by him, from Turrialba (Cartago, Costa Rica), showed a marked reduction in the area of dark integument on the elytra, and that the dark region on the apical half was replaced by two maculae; he further noted that this elytral pattern brought it closer to *H. candidus* (Bates, 1885). According to him, two other specimens from Turrialba agreed perfectly with the holotype of *H. nigrocinctus* from Chontales (Nicaragua) in regard to the elytral pattern and the pronotum, and that the third specimen (the one similar to *H. candidus*), which he believed to belong to *H. nigrocinctus*, demonstrated that marked variability in elytral coloration may occur among specimens from the same locality. In addition, he also reported that the outer spines at the elytral apex may be more reduced in length, being almost as long as the inner ones. Finally, Martins (1970b) stated that the specimen of *H. nigrocinctus* examined by him that most closely resembled *H. candidus*, originating from the extreme of the species' geographic distribution (Belize), bears a tubercle on the center of the



Fig. 9. *Appula argenteoapicalis* Fuchs, 1961, holotype, dorsal habitus. By Herbert Schmid.

pronotum and shows sparse, silky pubescence over the entire pronotum and over more than half of the lateral areas of the prothorax. Based on these observations, he concluded that, until additional material could be examined, he would regard *H. candidus* as a distinct species, separable from *H. nigrocinctus* by the presence of a tubercle on the pronotum. We consider that Martins' (1970b) conclusion regarding *H. candidus* was incorrect, as antennomere III in males of this species is distinctly longer and more slender than in males of *H. nigrocinctus*, and the elytral apex has no translucent (whitish) area—clearly present in *H. nigrocinctus*—providing a clear morphological distinction between the two. Moreover, in the material he examined, Martins (1970b) mentioned only the male holotype (examined by him) and two males and one female of *H. nigrocinctus* from Turrialba. Therefore, there is no specimen from Belize. The statement seems quite confusing to us (translated): “The examined specimen that most closely approaches *candidus* comes from the other extreme of the distribution (British Honduras,

MCZ [MCZN]); it has a simplified elytral pattern (fig. 622) ...” The figure he mentioned represents the specimen with aberrant elytral coloration, which is from Turrialba (which belongs to the SMFD) and not from Belize—he stated this under the heading “Variations.”

Heterachthes lateralis was described based on one male from Colombia (Magdalena) and one female from Brazil (Pará). Joly (1991) recorded this species from Venezuela and Chemsak *et al.* (1992) from Panama. Martins (2009) questioned the provenance of the allotype female (translated): “All examined material of *Heterachthes lateralis* originates from Colombia, Venezuela, and Panama; therefore, it is highly unlikely that the stated provenance of the allotype (Pará: Santarém) is correct.” The allotype belongs to the MCZN. Although the allotype is the only specimen formally known from the Amazon region, we believe there is no reason to assume that the locality indicated on the specimen's label is incorrect. Species of Cerambycidae occurring across multiple biomes are not uncommon.

Based on the material examined, original descriptions and redescrptions, as well as available photographs, we found no morphological differences other than the elytral color pattern, a feature observed as highly variable in *H. nigrocinctus*. Therefore, we conclude that *H. lateralis* represents merely one of the several variations observed in *H. nigrocinctus*. Therefore, we synonymized *H. lateralis* under *H. nigrocinctus*.

Heterachthes nigrocinctus is now recorded from Mexico, Nicaragua, Costa Rica, Panama, Colombia, and Venezuela (Monné 2024a; Tavakilian & Chevillotte). For the

time being, we do not include Belize as a country in which the species has been formally recorded, as the comment by Martins (1970b) does not make it possible to determine which species was actually involved.

***Neocompsa* Martins, 1965**

***Neocompsa aspasia* Martins, 1974
(Fig. 14)**

Neocompsa aspasia Martins, 1974: 148.

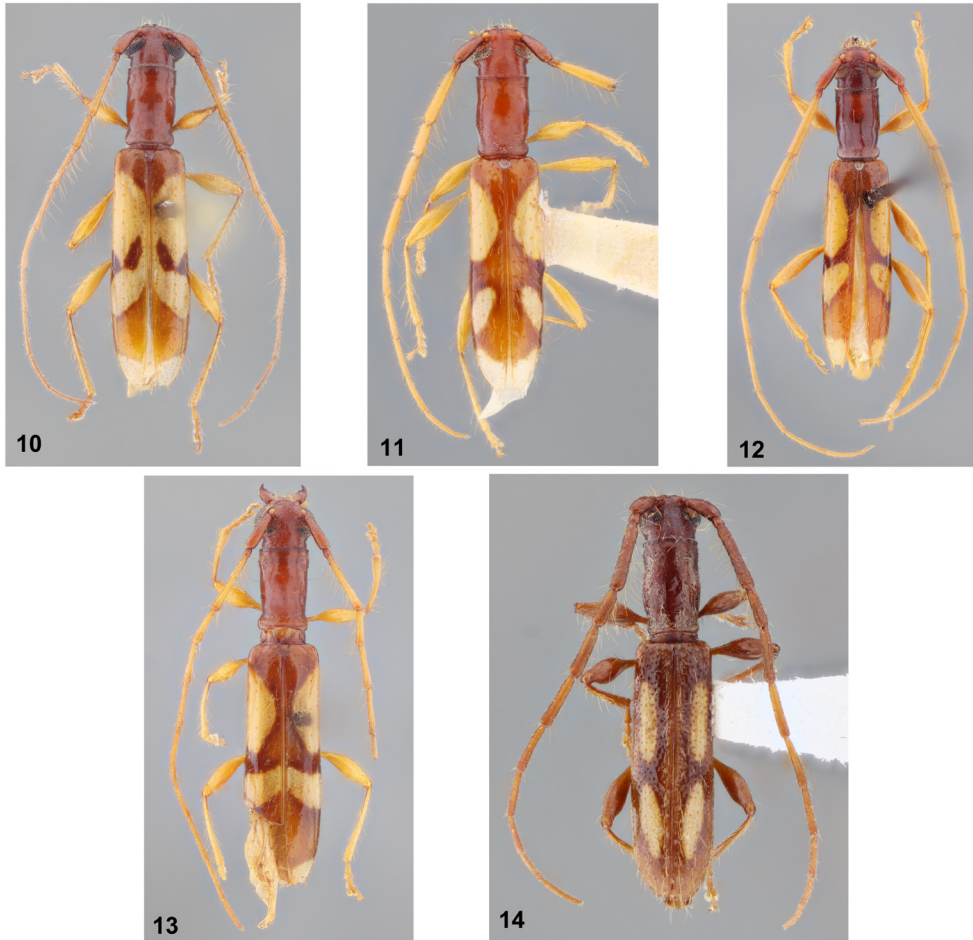
Material examined: MEXICO (new country record), Oaxaca: 7.5 km N El Porvenir, 16°41.841'N 94°47.715'W, 220 m, 1 ♀, 16.VII.2003, C.L. Bellamy leg., (CSCA).

Remarks. *Neocompsa aspasia* was described based on a female from Ecuador (Loja). Currently, it is known from Costa Rica, Panama, and Ecuador (Monné 2024a; Tavakilian & Chevillotte 2025). It is similar to *N. mexicana* (Thomson, 1865), recorded from Mexico, including Oaxaca, and *N. ruatana* (Bates, 1892), known only from Honduras (Roatán Island). *Neocompsa aspasia* differs from the former primarily in lacking sericeous pubescence over the entire dorsal surface of the elytra (abundant in *N. mexicana*). The separation of *N. aspasia* and *N. ruatana* is more challenging. *Neocompsa aspasia* was not compared with *N. ruatana* in the original description. However, according to Martins (1970a), who examined the holotype of *N. ruatana*, the elytral pubescence is present, although sparse, whereas it is absent on dorsal surface of the elytra in *N. aspasia*. Martins (1970a) also noted that the yellowish macula on the posterior half of the elytra is rounded in *N. ruatana*. However, a specimen from Roatán Island (see Bezark 2026) exhibits this macula in an elongated form, clearly indicating that its shape is variable within the species. We suspect that *N. aspasia* may represent a junior synonym of *N. ruatana*. However, in the absence of examined specimens of the latter from the type locality, we refrain from proposing the synonymy. Moreover, as the specimen from Mexico that we examined agrees perfectly with the holotype of *N. aspasia*, particularly in the complete absence of sericeous pubescence on the dorsal surface of the elytra, we have chosen to identify it as belonging to that species.

**LAMIINAE Latreille, 1825
ACANTHOCININI Blanchard, 1845
Astylopsis Casey, 1913**

Astylopsis Casey, 1913: 309.

Remarks. Dillon (1956) wrongly designated *Lamia macula* Say, 1826 as the type species of *Amniscus* Haldeman, 1847. However, Haldeman (1847) did not describe *Amniscus*: he only included species in *Amniscus* Dejean, 1835: “AMNISCUS, *Dejean*.” Accordingly, a type species cannot be designated. Furthermore, although not relevant in this case, none of the species included in *Amniscus* by Haldeman (1847) were included by Dejean (1835),



Figs. 10-14. 10-13: *Heterachthes nigrocinctus* Bates, 1872, dorsal habitus: 10- Female from Costa Rica (Guanacaste); 11- Male from Colombia (Magdalena, Parque Tayrona); 12- Male from Colombia (Magdalena, Aracataca); 13- Female from Costa Rica (Cartago); 14- *Neocompsa aspasia* Martins, 1974, dorsal habitus, female from Mexico (Oaxaca).

who listed three available species in the genus (Bousquet & Bouchard 2013): *Acanthocinus incrassatus* Klug, 1829; *Lamia inermis* Fabricius 1801; and *Lamia praemorsa* Fabricius, 1792. Therefore, the designation of the type species by Dillon (1956) has no nomenclatural value, as well as the synonym of *Astylopsis* under *Amniscus* was a mistake. Monné & Giesbert (1992) designated *Lamia praemorsa* as the type species of *Amniscus*. According to Linsley & Chemsak (1995), in the reference list under *Astylopsis*: “*Amniscus* Haldeman, 1847 (not Dejean, 1837), Trans. Amer. Philos. Soc., 2(10):46.” Although some species included by Haldeman (18947) in *Amniscus* currently do not belong to *Astylopsis*, we believe it is not correct to write “not Dejean, 1837.” If this reasoning were followed, a large number

of similar citations would need to be included in references of genera of Cerambycidae. Still according to Linsley & Chemsak (1995), “Haldeman (1847) applied the name *Amniscus* to a group of North American species from which Dillon (1956) designated *Lamia macula* Say as the type. However, since this name is a primary homonym, the valid name for the North American components of the genus becomes *Astylopsis* Casey (1913), which also has *Lamia macula* Say as the type.” However, one more time, *Amniscus* Haldeman, 1847 does not exist because this author did not describe a new genus.

The key to species of Acanthocinini provided by Dillon (1956) leads to *Amniscus* (currently *Astylopsis*) from the first option of the alternative of couplet “1:” “Prosternal process one-half or more than half as wide as a procoxal cavity.” However, the prosternal process in a syntype of *Amniscus perplexus* Haldeman, 1847 (MCZ 2026), which was included by Dillon (1956) in *Amniscus*, clearly shows that the central area of the prosternal process is about one-third the width of the procoxal cavity. Similarly, the key by Linsley & Chemsak (1995) leads to *Astylopsis* from the second alternative of couplet “18:” “Prothorax with intercoxal process more than half as broad as coxal cavities.” Therefore, at least specimens of *A. perplexa* cannot lead to *Astylopsis* following those keys.

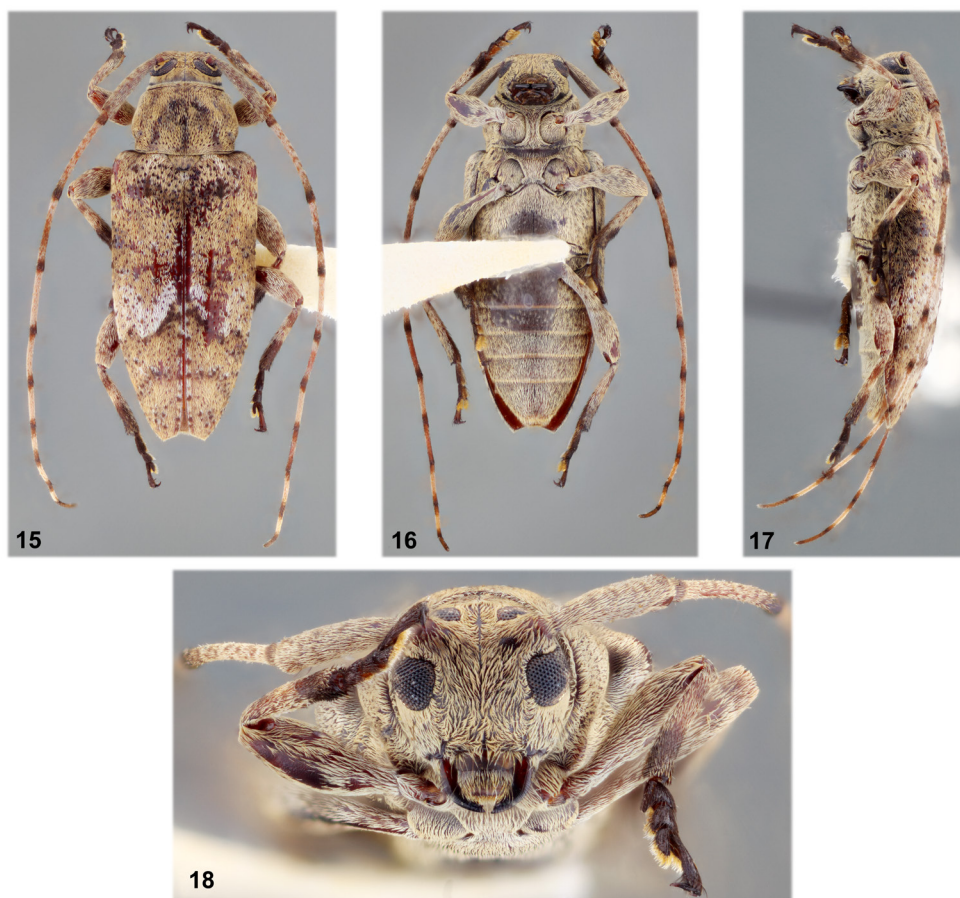
The key by Dillon (1945) separates *Amniscus* (= *Astylopsis*) from *Astylidius* Casey, 1913 in the alternative of couplet “7:” “Antennae with third segment at least slightly shorter than first,” leading to *Amniscus* (= *Astylopsis*); and “Antennae with third segment at least slightly longer than first,” leading to *Astylidius*. However, the photographs of the holotype of *Astylopsis arcuata* (LeConte, 1878) (MCZ 2026) show that antennomere III is at least as long as the scape. The same is true regarding a syntype of *Amniscus commixtus* Haldeman, 1947 (currently, a junior synonym of *Astylopsis sexguttata* (Say, 1827)) (MCZ 2026). The key by Linsley and Chemsak (1995) separates these two genera based on the number of pronotal gibbosities: three in *Astylidius*; five in *Astylopsis*. This feature appears to be reliable, although often the gibbosities in *Astylopsis* are often only slightly conspicuous.

***Astylopsis ziczac* sp. nov.**

(Figs. 15-18)

Type material. Holotype (♀): MEXICO, *Chiapas*: 33 km E. Tapanatepec, 8-12.VII.1988, Jim Cope leg., (CSCA). Paratypes: (1 ♀): MEXICO, *Oaxaca*: Hwy 200, 5.5 km W Morro de Mazatán (ca. 30 km SW Salina Cruz), 27 m, misc. beating, 14 July 2003, C. Bellamy leg., (LGBC); (1 ♀): 2-7 km N Santiago Lachiguirí, 900-1283 m, 11 July 2018, J. Rifkind & E. Martínez leg., (LGBC); (1 ♀): 8 miles E Juchitán [de Zaragoza], 8 July 1988, Jim Cope collector, (CSCA); (1 ♀): *Chiapas*: El Aguacero, 29 September 1989, F.T. Hovore leg., (LGBC); (1 ♀): Sumidero [Cañón del Sumidero], 27 September 1989, F.T. Hovore leg., (LGBC).

Description. Female holotype. Integument mostly dark brown, more dark reddish brown on some areas depending on light intensity. Palpomeres mostly blackish; anteclypeus orangish brown posterolaterally; labrum dark reddish brown; scape brown; pedicel dark reddish brown; antennomere III light reddish brown, except dark-brown apex; antennomere IV reddish brown, except dark-brown apex; antennomere V orangish, except dark-brown apex; antennomeres VI-X reddish brown basally, dark brown apically, orangish on remaining surface; antennomere XI brownish, except brown apex. Pronotum with inverted W-shaped macula partially black, from anterior quarter to near posterior margin. Femora reddish brown



Figs. 15-18. *Astylopsis ziczac* sp. nov., female holotype: 15- Dorsal habitus; 16- Ventral habitus; 17- Lateral habitus; 18- Head, frontal view.

basally. Tibiae reddish brown on about basal half, dark brown on remaining surface, blackish depending on light intensity. Tarsomeres blackish, slightly lighter on part of metatarsomeres V. Apex of abdominal ventrites 1-4 orangish; posterior quarter of ventrite 5 reddish brown.

Head. Frons abundantly, minutely punctate; with abundant dull yellowish-brown pubescence partially obscuring integument, slightly darker toward vertex; with one long, erect dark-brown seta close to inferior half of eyes. Vertex with dense dull yellowish-brown pubescence, except glabrous median groove, and central area close to prothorax with sparser pubescence. Area behind eyes with dense dull yellowish-brown pubescence. Genae about as long as lower eye lobe frontally; with dense dull yellowish-brown pubescence, more pale yellow depending on viewing angle, except glabrous apex; with a few long, erect dark-brown setae interspersed. Antennal tubercles moderately elevated; with abundant dull yellowish-brown pubescence partially obscuring integument. Wide central area of

postclypeus with abundant dull yellowish-brown pubescence close to frons, except glabrous central region; area close to anteclypeus with sparser pubescence; area close to frons with one long, erect blackish seta on each side; area close to anteclypeus with long, erect yellowish-brown setae directed forward. Sides of postclypeus partially glabrous. Labrum with abundant dull yellowish-brown pubescence on posterior 2/3, with long, erect both dark-brown and yellowish-brown setae interspersed; anterior third glabrous, except anterior margin with short tuft of yellowish-brown setae. Gulamentum glabrous, except sparse yellowish-brown pubescence on intermaxillary process. Distance between upper eye lobes 0.20 times distance between outer margins of eyes; in ventral view, distance between lower eye lobes 0.51 times distance between outer margins of eyes. Antennae 1.9 times elytral length, reaching elytral apex at middle of antennomere VII. Scape with dense dull yellowish-brown pubescence and irregular, small areas with sparse pubescence interspersed, except dorsal apex with sparse yellowish-brown pubescence. Pedicel with moderately abundant dark yellowish-brown pubescence not obscuring integument, except denser, dull yellowish-brown pubescence on dorsal base. Antennomere III with dense yellowish-white pubescence, with abundant, irregular areas with sparser pubescence interspersed, except dark-brown pubescence not obscuring integument on dark integumental apex; antennomere IV with abundant whitish pubescence on basal quarter, dark-brown pubescence not obscuring integument on dark integumental apex, moderately abundant whitish pubescence close to dark integumental apex, and sparse, both whitish and yellowish-brown pubescence on remaining surface; antennomeres V-IX with dense whitish pubescence, except subglabrous base, and dark-brown pubescence not obscuring integument on dark integumental apex, area close to dark integumental apex with sparse whitish pubescence on VII-X; antennomere XI with moderately sparse light yellowish-brown pubescence and short, erect whitish setae interspersed, denser on apex. Antennal formula (ratio) based on length of antennomere III: scape = 0.90; pedicel = 0.10; IV = 0.87; V = 0.74; VI = 0.61; VII = 0.54; VIII = 0.51; IX = 0.51; X = 0.49; XI = 0.43.

Thorax. Prothorax wider than long; anterior constriction narrow, distinct; sides divergent from anterior constriction to posterior third, forming slightly distinct rounded projection from anterior third, then distinctly narrowed toward posterolateral angles. Pronotum without distinct gibbosities; abundantly, coarsely punctate; with dense yellowish-brown pubescence obscuring integument, slightly lighter on some areas, except sparser yellowish-white pubescence close to lateral constriction of prothorax, and moderately sparse, both brown and yellowish-brown pubescence on inverted W-shaped area, this area with sparse whitish pubescence on some regions. Sides of prothorax with sculpturing as on pronotum, except transverse row of very coarse punctures near posterior margin; with dense pubescence, yellowish-brown on posterior half, dull yellowish-white on anterior half, except glabrous anterior sulcus; with a few long, erect dark-brown setae posteriorly near pronotum. Ventral surface of prothorax with dense yellowish-brown pubescence, paler centrally. Narrowest area of prosternal process 0.52 times procoxal width. Mesoventral process with sides distinctly convergent from base to posterior quarter, then abruptly, distinctly widened; narrowest area 0.64 times mesocoxal width; apex 0.98 times mesocoxal width.

Scutellum with abundant yellowish-brown pubescence not obscuring integument, except subglabrous apex (probably the pubescence has been lost).

Elytra. Parallel-sided on anterior half, convergent toward apex on posterior half; apex obliquely truncate; moderately abundantly, coarsely punctate on anterior third, punctures gradually finer and sparser toward apex on posterior 2/3; with two longitudinal, slightly distinct carinae dorsally, outermost starting anteriorly near humerus, innermost starting on area of centrobasal crest, ending, fused on posterior quarter; centrobasal crest not elevated, just indicated by presence of dense longitudinal tuft of bristly brown setae; with dense yellowish-brown pubescence, except whitish pubescent macula anteriorly near scutellum; short whitish macula close to scutellum and suture; sparse whitish pubescence interspersed near middle of dorsal surface; wide, transverse zigzag white pubescent band near middle, from suture to epipleural margin, pubescence sparser on epipleura; narrow, dashed white pubescent band close to suture, from anterior quarter to apex; transverse, irregular, fragmented band with sparse pubescence on dorsal surface of posterior quarter; sparser white pubescence interspersed on posterior quarter; yellowish white pubescence basally on epipleura; and glabrous frontal area of humerus, and small, glabrous spots interspersed on posterior quarter.

Legs. Coxae with abundant dull yellowish-brown pubescence, darker on metacoxae. Trochanters with abundant yellowish-white pubescence. Femora with dense yellowish-white pubescence on peduncles and dense dull yellowish-brown pubescence on clubs, except small, circular glabrous spots interspersed. Protibiae with dense dull yellowish-brown pubescence on basal 2/3 of dorsal and lateral surfaces and basal half of ventral surface; remaining dorsal and lateral surface with yellowish-brown pubescence not obscuring integument, darker depending on light intensity, and remaining ventral surface with dense, bristly dark-brown pubescence. Meso- and metatibiae with dense, dull yellowish-brown pubescence on basal 2/3; apical third of mesotibiae with dense, bristly yellowish-brown setae dorsally, abundant dark yellowish-brown on remaining surface; apical third of metatibiae with both brown and dull yellowish-brown pubescence dorsally and laterally, and abundant yellowish-brown pubescence ventrally. Dorsal surface of tarsomeres with abundant blackish pubescence, slightly sparser on tarsomeres V; metatarsomere V about as long as II-III together.

Abdomen. Ventrites with abundant dull yellowish-brown pubescence partially obscuring integument, pubescence appearing to be lighter apically due to the integumental color. Ventrite 5 truncate, slightly emarginated centrally.

Dimensions in mm. Holotype: Total length, 8.20; prothoracic length, 1.50; anterior prothoracic width, 1.60; posterior prothoracic width, 2.05; maximum prothoracic width, 2.20; humeral width, 2.95; elytral length, 6.10. Paratypes: Total length, 7.05-8.10; prothoracic length, 1.30-1.60; anterior prothoracic width, 1.40-1.85; posterior prothoracic width, 1.90-2.05; maximum prothoracic width, 2.05-2.30; humeral width, 2.60-2.80; elytral length, 5.45-6.25.

Etymology. The specific epithet “ziczac” refers to the irregular, transverse white elytral line.

Remarks. The general appearance of *Astylopsis ziczac* sp. nov. resembles that of the species of *Stenolis* Bates, 1864. However, the presence of a longitudinal tuft of setae on the area of

the centrobasal crest of the elytra, clearly differentiated from the surrounding pubescence, suggests its exclusion from *Stenolis*.

Using the key to genera of Acanthocinini by Linsley & Chemsak (1995), the new species could not be included in *Astyliidius* because the pronotum does not have three elevated gibbosities.

The metafemoral club in the new species is also not distinctly pedunculate-clavate. However, the specimen is a female, and the femoral peduncle in some species of *Astylopsis* is not markedly different from that in the new species. Furthermore, the centrobasal crest of the elytra may be very slightly elevated in some species of *Astylopsis*. Therefore, we consider the inclusion of the new species in *Astylopsis* to be the most appropriate option, at least until the male becomes known.

Updated key to the species of *Astylopsis* (adapted from Schiefer 2001 and Linsley & Chemsak 1995):

1. Punctures at most sparser on posterolateral areas of pronotum 2
- Punctures abundant on posterolateral areas of pronotum 4
- 2(1). Pronotum with two longitudinal dark pubescent bands laterally, often fragmented. USA (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, South Carolina)..... *A. fascipennis* Schiefer, 2001
- Pronotum with arched dark pubescent bands laterally or without longitudinal or arched dark bands laterally.. 3
- 3(2). Elytra with large, zig-zag white pubescent band just after middle; posterior third of elytra sparsely punctate; elytral apex obliquely truncate; apex of mesoventral process strongly projected sideward; metafemora not pedunculate-clavate. Mexico (Chiapas)..... *A. ziczac* sp. nov.
- Elytra with narrow, oblique white pubescent band after middle; posterior third of elytra abundantly punctate; elytral apex rounded; apex of mesoventral process at most slightly projected sideward; metafemora pedunculate-clavate. USA (Georgia, Florida, Texas, South Carolina, Louisiana) *A. perplexa* (Haldeman, 1847)
- 4(1). Elytra with longitudinal dark pubescent band on epipleura, from humerus to near apex. USA (Florida, Maryland, Alabama, Arkansas, Louisiana, Georgia, North Carolina, Mississippi, Tennessee)
- Elytra without longitudinal dark pubescent band on epipleura 5
- 5(4). Elytra with dark tufted tubercles, especially on basal gibbosities. Canada (Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia), USA (Massachusetts, New York, New Jersey, Pennsylvania, District of Columbia, Ohio, Connecticut, Michigan, Wisconsin, Georgia, Indiana, New Mexico, Maryland, Texas, Virginia, Mississippi, Minnesota, Arkansas, Iowa, Rhode Island, Alabama, Maine, Kentucky, Tennessee, Florida).....
- Elytra without dark tufted tubercles 6
- 6(5). Prothoracic tubercles conical; pronotum without dense yellowish-white pubescence laterally. Canada (New Brunswick, Ontario, Quebec), USA (Pennsylvania, Alabama, New York, New Jersey, Maryland, Georgia, Florida, Kentucky, District of Columbia, North Carolina, Minnesota, Massachusetts, Connecticut, Virginia, Michigan, Iowa, Tennessee)
- Prothoracic tubercles rounded; pronotum with dense yellowish-white pubescence laterally. Canada (Quebec, Ontario, New Brunswick, Nova Scotia), USA (Pennsylvania, Maine, Massachusetts, New York, New Jersey, Ohio, Virginia, District of Columbia, Michigan, Wisconsin, Georgia, Vermont, Illinois, Indiana, Alabama, Kansas, Maryland, Tennessee, Minnesota, Arkansas, North Carolina, Mississippi, Kentucky, North Carolina, Oklahoma) *A. macula* (Say, 1827)

Polymitoleiopus Lepesme & Breuning, 1955

Polymitoleiopus schmidi sp. nov.

(Figs. 19-22)

Type material. Holotype (♀): PARAGUAY, *Guairá*: Zorrila, 19.X.1992, no collector indicated, (CSCA).

Description. Female holotype. Head capsule dark brown, except orangish brown ventral surface and irregular areas on genae; ventral mouthparts orangish brown, lighter on some areas, except palpomeres from brown to dark brown with apex of maxillary palpomeres IV and labial palpomeres III orangish brown; anteclypeus brown close to postclypeus, dull yellowish brown close to labrum; labrum light brown on posterior half, yellowish brown on anterior half; scape orangish brown on basal third, brown on remaining surface, except dark-brown extreme apex; pedicel orangish basally, brownish on remaining surface; antennomere III reddish brown, slightly lighter basally, except dark brown apex; antennomeres IV-VII orangish brown, except dark-brown apex, dark area longer on VII; antennomeres VIII-X dark brown (missing antennomeres IX-XI on left antenna and XI on right antenna). Pronotum dark brown, except narrow, transverse orangish-brown band centrally close to anterior constriction and entire area close to posterior margin. Sides of prothorax dark brown, except orangish brown area close to anterior constriction. Prosternum and prosternal process orangish. Mesoventrite orangish brown, with irregular brownish areas interspersed laterally and dark brown narrow area close to procoxal cavities. Mesoventral process orangish. Mesanepisterna, mesepimera, and metanepisterna dark brown. Metaventrite dark brown laterally, orangish brown on remaining surface. Scutellum orangish brown except dark reddish-brown margins. Elytra orangish brown, except brown circum-scutellar region and sutural region, from circum-scutellar region to near apex, strongly widened just beyond middle, gradually becoming paler toward apical region, and large light-brown macula at same level as widened sutural dark area, from epipleural margin to sides of dorsal surface. Pro- and mesocoxae orangish with irregular brownish areas; metacoxae mostly brown. Trochanters orangish brown, slightly darker on metatrochanters. Femora orangish brown basally, mostly brown on remaining surface, more dark reddish brown or orangish brown depending on light intensity and source. Tibiae dark brown basally and apically, dark reddish brown on remaining surface. Tarsomeres mostly dark brown. Abdominal ventrites 1-4 orangish-brown, darker laterally, except pale-yellow apex; ventrite 5 reddish brown with irregular dark-brown areas interspersed.

Head. Frons abundantly, minutely punctate; with abundant dull yellowish-brown pubescence not obscuring integument, except glabrous median groove. Vertex with sculpturing as on frons; with abundant light yellowish-brown pubescence not obscuring integument. Area behind eyes with abundant light yellowish-brown pubescence superiorly and inferiorly close to eye, mostly glabrous on remaining surface. Genae about half length of lower eye lobe in frontal view; with sparse yellowish-brown pubescence, except glabrous apex. Antennal tubercles with moderately abundant brownish pubescence not obscuring integument. Gulamentum smooth, glabrous, except sparse yellowish-white pubescence on intermaxillary process. Wide central area of postclypeus sparsely, finely punctate; with



Figs. 19-22. *Polymitoleiopus schmidi* sp. nov., female holotype: 19- Dorsal habitus; 20- Ventral habitus; 21- Lateral habitus; 22- Head, frontal view.

sparse dull yellowish-brown pubescence. Sides of postclypeus smooth, glabrous. Posterior half of labrum with a few short, decumbent yellowish-white setae and sparse, long, erect setae, dark-brown on posterior half, paler toward apex; anterior half glabrous, except short fringe of yellowish-brown setae on anterior margin. Eyes distinctly coarsely punctate; upper eye lobes about as wide as basal diameter scape; distance between upper eye lobes 0.32 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.56 times distance between outer margins of eyes. Antennae 2.5 times (from base to apex of antennomere X, which appears to be broken) elytral length, reaching elytral apex at apex of antennomere V. Scape, pedicel, and antennomeres III-X with moderately abundant whitish pubescence not obscuring integument; III with a few short, erect dark-brown setae

interspersed ventrally; IV-VIII with short dark-brown seta on ventral apex. Antennal formula (ratio) based on length of antennomere III: scape = 0.80; pedicel = 0.11; IV = 0.91; V = 0.80; VI = 0.73; VII = 0.69; VIII = 0.69; IX = 0.67; X = 0.27.

Thorax. Prothorax wider than long; anterior constriction narrow, distinct; sides divergent from anterior constriction to lateral tubercles, then distinctly narrowed, parallel-sided toward posterolateral angles; lateral tubercle large, as a continuation of the anterior margins, located on posterior third, with apex acutely projected backward. Pronotum densely, minutely punctate, except coarse punctures near posterior margin, following toward sides of prothorax; with abundant dull yellowish-brown pubescence laterally, paler on some regions, narrow area close to anterior and posterior margins, sparser centrally close to anterior margin, and longitudinal, wide pubescent band on center of posterior half, base of this band widened; remaining surface with abundant dark yellowish-brown pubescence not obscuring integument. Sides of prothorax with abundant yellowish-brown pubescence not obscuring integument, lighter depending on light intensity, except glabrous anterior sulcus. Prosternum with abundant yellowish pubescence not obscuring integument, slightly sparser centrally, except glabrous anterior sulcus. Prosternal process laminiiform centrally, with abundant yellowish pubescence not obscuring integument anteriorly and posteriorly. Ventral surface of meso- and metathorax with abundant yellowish-brown pubescence laterally, sparser, lighter centrally. Mesoventral process narrow, about 0.15 times mesocoxal width.

Scutellum with abundant yellowish-brown pubescence not obscuring integument, except yellowish-white pubescence close to margins.

Elytra. Parallel-sided on anterior half, rounded and convergent on posterior half; apex individually rounded; light integumental areas with abundant yellowish-white pubescence partially obscuring integument, slightly lighter on posterior third; dark integumental areas with abundant dark yellowish-brown pubescence not obscuring integument, except anterior area close to suture with lighter pubescence.

Legs. Coxae and trochanters with moderately sparse yellowish-white pubescence. Femora, tibiae, and dorsal surface of tarsi with moderately abundant yellowish-brown pubescence not obscuring integument, except apical third of ventral surface of protibiae with moderately abundant, bristly dark yellowish-brown pubescence, and apical third of dorsal surface of mesotibiae with dense, erect, short dark-brown setae.

Abdomen. Ventrites with abundant yellowish pubescence not obscuring integument, denser laterally; ventrite 5 with long, erect, thick dark-brown setae on posterior quarter; apex of ventrite 5 truncate.

Dimensions in mm. Total length, 4.50; prothoracic length, 0.80; anterior prothoracic width, 1.00; posterior prothoracic width, 1.05; maximum prothoracic width, 1.40; humeral width, 1.60; elytral length, 3.25.

Etymology. This species is named in honor of Herbert Schmid, in gratitude for the numerous occasions on which he assisted us by sending photographs of type specimens from his private collection.

Remarks. Due to the pattern of the elytral pubescence, *Polymitoleiopus schmidi* sp. nov. cannot be confused with any of its congeners (see photographs on Bezark 2026, and in some cases, in the original descriptions or redescrptions).

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