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New genera, species, and records of Acanthocinini (Coleoptera: Cerambycidae: Lamiinae) from Hispaniola

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of Acanthocinini (Coleoptera: Cerambycidae: Lamiinae)
from Hispaniola

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New genera, species, and records of Acanthocinini (Coleoptera: Cerambycidae: Lamiinae) from Hispaniola

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Abstract. Two **new genera** of Acanthocinini (Coleoptera: Cerambycidae), *Luctithonus* Lingafelter and *Duocris-tala* Lingafelter, are described from Hispaniola. Two **new species** of *Luctithonus* are described: *Luctithonus aski* Lingafelter and *L. duartensis* Lingafelter. A third species, *L. pantherinus* (Zayas), is newly recorded from Hispaniola and the Dominican Republic (**new country record**), and transferred from *Sternidius* Haldeman as a **new combination**. Additional **new species** of Lamiinae are described from Hispaniola: *Eugamandus albipumilus* Lingafelter; *Leptostylopsis opuntiae* Lingafelter; and *Lethes turnbowi* Lingafelter. Keys to tribes of Lamiinae, genera of Acanthocinini, and species of *Luctithonus* in Hispaniola are included.

Key words. Longhorned beetles, wood-borers, taxonomy, systematics, Neotropics, Dominican Republic, identification keys.

Introduction

The diversity of Lamiinae (Coleoptera: Cerambycidae) in Hispaniola is high and in the past decade 19 species of Lamiinae have been described in the genera *Leptostylopsis* Dillon (Lingafelter and Micheli 2009), *Urgleptes* Dillon (Ravin and Lingafelter 2015), and in the tribe Hemilophini (Lingafelter 2013). In this work, two new genera and five new species of Acanthocinini are described for the island from the Dominican Republic, and full diagnostic comparisons with similar species are presented. A new country record and new combination is presented for another species of Hispaniolan acanthocinine. Keys to the genera of Acanthocinini, tribes of Lamiinae, and species of *Luctithonus* Lingafelter for Hispaniola are included.

Materials and Methods

The collections listed below were examined in the course of this research. The acronyms are used in the Type Material sections following each species description. The online and printed primary type photographic database of the Smithsonian Institution (Lingafelter et al. 2014, 2020) and the study of primary types in the Fernando de Zayas collection, Havana, Cuba (Nearns et al. 2006), were consulted:

- CMNC** Canadian Museum of Nature Collection, Ottawa, Canada (R. Anderson, François Génier)
CMNH Carnegie Museum of Natural History, Pittsburgh, PA, U.S.A. (J. Rawlins, R. Davidson, R. Androw)
FDZC Fernando de Zayas Collection, Havana, Cuba (the Zayas Family)
FSCA Florida State Collection of Arthropods, Gainesville, FL, U.S.A. (P. Skelley)
FWSC Fred W. Skillman Collection, Phoenix, AZ, U.S.A.
REWC Robert E. Woodruff Collection, Gainesville, FL, U.S.A. (at FSCA)
RHTC Robert H. Turnbow, Jr. Collection, Ft. Rucker, AL, U.S.A.
SWLC Steven W. Lingafelter Collection, Hereford, AZ, U.S.A.
USNM National Museum of Natural History, Smithsonian Institution, Washington, DC, U.S.A. (C. Micheli)
WIBF West Indian Beetle Fauna Project, Bozeman, MT, U.S.A. (M. Ivie)

With the exception of holotype label data which is verbatim, label redundancy among paratypes is minimized by not repeating identical localities within a species treatment in Type Material sections.

Obvious spelling errors from locality labels are corrected. Morphological terms referred to herein but not necessarily shown, are illustrated and defined in Nearns et al. (2019).

Imaging, measurements, and microscopy were undertaken with a Nikon Digital Sight DS-F12 camera mounted on a Nikon SMZ18 Stereomicroscope equipped with SHR Plan Apo 0.5× and 1× lenses. Image montages were made by Helicon Focus 6.8.0 and enhanced via cropping, color correction, sharpening, and lighting tools in Adobe Photoshop Elements 12.

Results

Eugamandus albipumilus Lingafelter, new species

(Fig. 1–3)

Diagnosis. Structurally, both species of Hispaniolan *Eugamandus* (*E. albipumilus*, new species and *E. darlingtoni* Fisher) are very similar. *Eugamandus albipumilus* has a diffuse, white pronotal macula anterior to the scutellum (Fig. 1, 2a). In some specimens, this macula is extended longitudinally to the anterior margin. The elytra have a pale elytral declivous region bordered anteriorly by one or two small, black, rounded or triangular maculae (Fig. 1, 2a, b). The basal costal elytral ridges are weakly elevated and the area between them toward the suture is very weakly sloping and nearly flat (Fig. 2b). Most of the ventral sclerites are covered in evenly spaced punctures, each bearing a single, thickened, scale-like, white or off-white seta (Fig. 2c, d). *Eugamandus darlingtoni* (see Perkins et al. 2020) lacks a white pronotal macula anterior to the scutellum. The elytra of *E. darlingtoni* have a vaguely pale apex marked at its anterior declivous margin of each with a small, narrow, transverse, black macula. The basal costal elytral ridges are pronounced and rise abruptly at approximately 45° between the suture and outer humeral margin in *E. darlingtoni*. The ventral seta-bearing punctures are less distinct than in *E. albipumilus*.

Description. Length: 5.3–6.3 mm; width: 2.4–3.0 mm.

Head: Covered in vestiture of short, dense, ochre setae except for large, separate punctures on frons and lower vertex between upper eye lobes which each bear a single longer, scale-like, white seta. Punctures on upper vertex and occiput behind upper eye lobes smaller, denser, mostly contiguous and lacking long, white setae. Narrow median-frontal line mostly delineated. **Antenna:** Extending beyond middle of elytra, near apical declivity, most segments reddish-brown at base and apex, piceous at the middle third, giving mottled appearance. Covered with dense, appressed, semi-translucent to golden pubescence. Antennal scape approximately as long as third antennomere, constricted at base and weakly swollen at middle; barely extending beyond anterior margin of pronotum. Antennomeres 6–10 subequal in length to one another. Antennomere 11 tapering to subacute point and slightly longer than penultimate. **Eye:** lower eye lobe longer than gena below it; nearly 1.5 times height of upper eye lobe; lobes connected by 2–3 rows of ommatidia. Upper eye lobes separated by about two-thirds the length of scape. **Mouthparts:** frontoclypeal margin with fringe of long golden semi-translucent setae, most of which extend to base of labrum (setae on lateral margins much longer); clypeus with very short fringe of golden pubescence at base. Labrum with off-white pubescence at base, becoming longer, denser, and more golden toward apex. Mandibles with dense covering of appressed golden pubescence on outer margins.

Thorax: Pronotum reddish-brown, without dorsal or lateral tubercles; slightly broader than long; broader than head but narrower than elytral base. Moderately dense, appressed, ochre to golden setae covering the surface except for base anterior to scutellum and extending upward and outward into diffuse macula. Scattered, large, ovoid punctures present over much of pronotum, most of which bear a single, white, scale-like seta. Scutellum piceous, impunctate, broadly rounded posteriorly with dense, white, appressed setae on outer third, sometimes coalescing posteromedially, but with mostly glabrous middle third to anterior margin. Prosternum with sparse punctures and scattered off-white setae becoming denser and ochre toward sides. Prosternal process about 1/3 width of procoxa, broadly expanded at apex to about midpoint of each procoxa, closing procoxal cavities posteriorly. Mesosternum very short, distance between pro- and mesocoxae about the same as width of prosternal process between procoxae. Sparse punctures and scattered off-white setae becoming denser and ochre toward sides. Mesosternal



Figure 1. *Eugamandus albipumilus* Lingafelter, new species. Digital painting by Taina Litwak.

process between mesocoxae approximately 1.5 times width of prosternal process. Metasternum covered with appressed, off-white or ochraceous pubescence, becoming denser at sides and on the lateral thoracic sclerites, but glabrous along middle sulcus. Scattered, large punctures present, each bearing a single off-white or ochre seta. One larger seta-bearing puncture on either side of middle sulcus posteriorly, just anterior to metacoxae. *Elytra*: slightly broader than pronotum at base. Each elytron averaging 4 mm in length and 1.3 mm in width at middle, covered with combination of appressed, golden, ochraceous, and

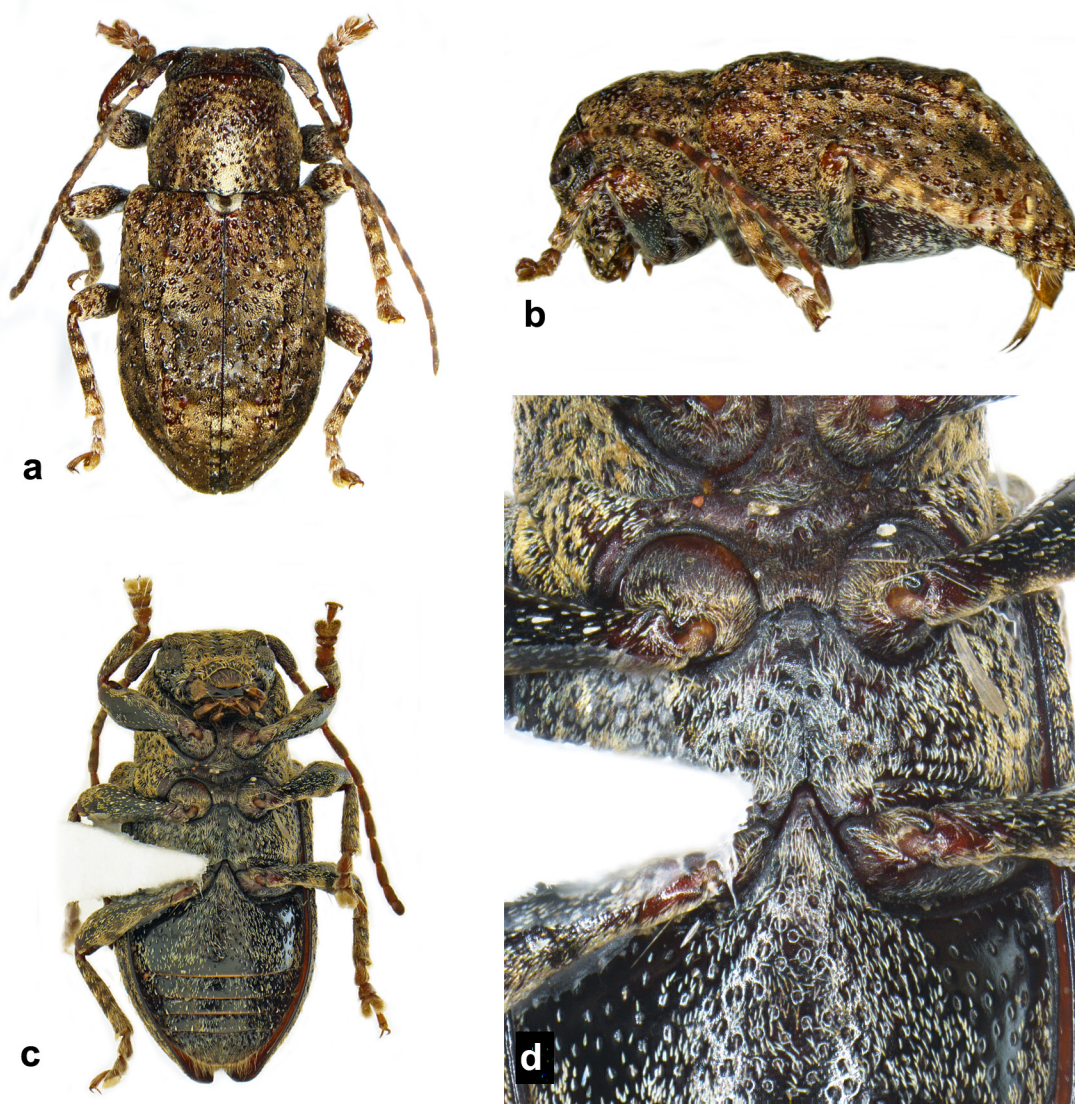


Figure 2. *Eugamandus albipumilus* Lingafelter, new species. **a)** Dorsal habitus, holotype male. **b)** Lateral, holotype. **c)** Closeup of sterna, paratype female.

off-white setae forming vague light to dark maculae or mottling. Large but broadly-spaced punctures over most of surface, each bearing a single, white, scale-like seta. Two or three costae elevated along the basal two-thirds. Apical third of elytra distinctly declivous, more lightly colored than remainder (except for small circular or triangular black macula near base of declivity), and narrowed to suture at apex. Three sets of gibbosities are present, best viewed from lateral perspective: one at base, one at middle, and one at apex of declivity of each elytron. Region between basal gibbosities toward suture weakly sloping. Epipleura not distinct. *Legs*: relatively short, mostly uniformly pubescent with ochraceous setae over most of surface, but with 2–3 vague, narrow annulae of darker setae on all tibiae and venter of meso- and metafemora. Tibiae slightly shorter than associated femora. Metafemora extending to approximately apical third of elytra. Tarsi paler reddish-brown than remainder of legs, with white to off-white setae along the distal margin of segments 1–3.

Abdomen: Piceous, shiny, generally darker than most integument elsewhere, especially dorsally. Ventrites with sparse, short, ochre and off-white setae, with exception of apex of fifth ventrite which has a fringe of long, fine, ochraceous setae. Large, widely spaced, seta-bearing punctures present throughout.

Distribution. Endemic to Hispaniola, this species is known only from the low montane and coastal lowland areas of the Dominican Republic (Fig. 3).

Remarks. *Eugamandus* Fisher (1926) is superficially very similar to *Nanilla* Fleutiaux and Sallé (1889), despite them being in separate tribes (*Eugamandus* is in Acanthocinini while *Nanilla* is in Parmenini). The type species of *Nanilla*, *N. delauneyi* Fleutiaux and Sallé (1889), shares with the type species of *Eugamandus*, *E. schwarzi* Fisher (1926), a similar antennal scape, elytral apical declivity, and overall form. Interestingly, Fisher did not make any comparison of *Eugamandus* to *Nanilla* when he described the genus, so it is possible that he did not consider it (perhaps because it was placed in a different tribe). Several species now placed in *Nanilla* and *Eugamandus* are clearly flightless with unproduced humeri and fused elytra and even more pronounced globose form (although the type species of each do not appear to be flightless). Further study needs to be made to clarify the differences and phylogenetic placement of these genera. Possibly a generic synonymy is necessary, along with creation of a new genus for the morphologically distinct, flightless forms that have been placed in each, but that is beyond the scope of this paper.

Eugamandus is here defined by the presence of fully developed flight wings, unfused elytra that are abruptly declivous at the apical third, humeri slightly, but distinctly projecting and not continuous with the pronotal margin, and overall more elongate and less globose proportions than *Nanilla*.

With the present description, eight species are known (all from the Greater Antilles) including two species now known from Hispaniola. *Eugamandus darlingtoni* Fisher, a montane species, was described from “the foothills of the Cordillera Central, south of Santiago”, an interior locality. The present species has been collected only in areas near the coast (mostly below 200 meters) in the Dominican Republic.

Etymology. *Eugamandus* Fisher is a masculine genus name and was formed by combining elements of the first and middle names of Eugene Amandus Schwarz, for whom it was patronymic. The masculine epithet, *albipumilus*, is attributed to the variably developed white pronotal macula (*albi-*, Latin, meaning “white”) and overall small size of the beetle (*pumilus*, Latin, meaning “dwarf”).

Type material. Holotype: Dominican Republic: Puerto Plata Province, Reserva Científica Isabel de Torres, 704 m, 23 June 2010, 19°45'55.6"N, 70°42'42.8"W, beating, S. W. Lingafelter (male, USNM).

Paratypes: all Dominican Republic: La Altagracia Province, Parque Nacional del Este, Boca de Yuma, 18°21.508'N, 68°36.956'W, 3–20 m, 28 June 2005, beating, S.W. Lingafelter (USNM, 1); La Altagracia Province, Parque Nacional del Este, Boca de Yuma, 18°21.904'N, 68°37.094'W, 2 m, 5 August 1999, at light, M. A. Ivie & K. A. Guerrero (WIBF, 1); La Altagracia Province, road to Hoyo Azul, 2.3 km S. Verón, 18°34.738'N, 68°26.628'W, 55 m, 2 December 2014, S.W. Lingafelter (SWLC, 1); La Altagracia Province,



Figure 3. Distribution map of *Eugamandus* species known from Hispaniola.

Punta Cana Reserve, 18°30'40"N, 68°26.628'W, 11–14 November 2005, screen sweep, L. Masner (CMNH, 1); San Cristóbal Province, Borbón, Cuevas Pomier, tropical deciduous forest, Malaise trap, 28 July–5 August 1995, S. & J. Peck, Specimen # 95–46, 200 m (CMNC, 1); Barahona Province, near Filipinas, Larimar Mine, 27 June 1992, beating, F. W. Skillman (FWSC, 1); Azua Province, Sierra Martín García, 9 December 2014, 925 m, 18°21.224'N, 71°00.870'W, A. S. Konstantinov (SWLC, 1).

***Luctithonus* Lingafelter, new genus**

(Fig. 4–6)

Diagnosis. This genus is recognized by the presence of a basal elytral crest with a small tuft of setae (at arrow in Fig. 4c, from anterior view in Fig. 4e); a pronounced depression behind the elytral crest; pronotal disc nearly impunctate except for row of small, well-defined punctures along posterior constriction (Fig. 4g); pronotum without dorsal tubercles and with broad lateral tubercles positioned posteromedially and apices elevated (Fig. 4a, g); very broad mesosternal process that is as wide as mesocoxa (Fig. 4f); greatly

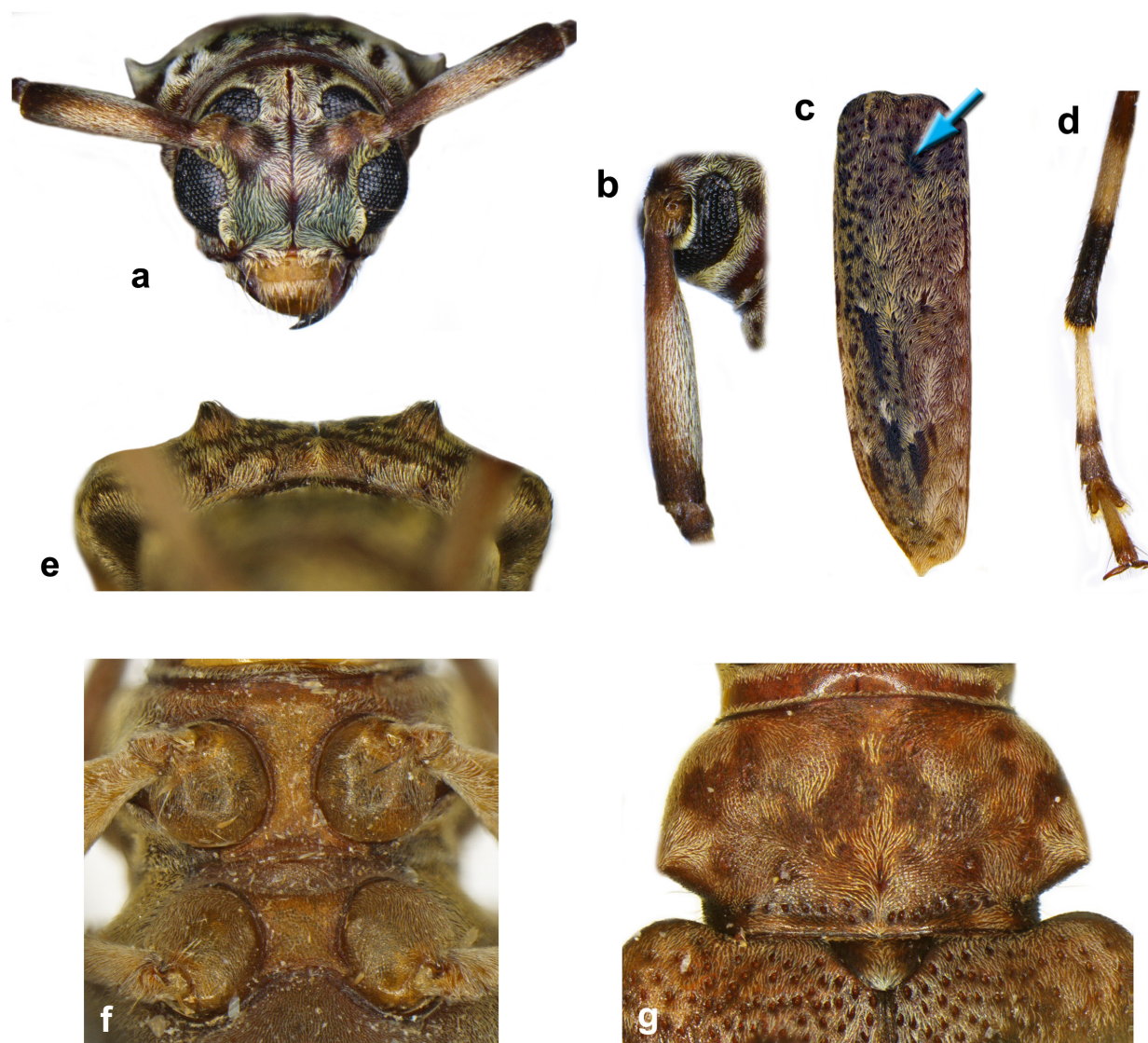


Figure 4. *Luctithonus* Lingafelter, new genus. **a)** Head, anterior view. **b)** Antennal scape. **c)** Elytron showing location of basal crest. **d)** Hind tibia and tarsus. **e)** Anterior view of elytra showing location and extent of tufts. **f)** Prosternum and mesosternum. **g)** Pronotum.

expanded prosternal process with apex wider than the mesosternal process, closing the procoxal cavities posteriorly (Fig. 4f); scape which is mostly evenly cylindrical for the apical $\frac{3}{4}$ (Fig. 4b); absence of erect setae or additional setal tufts on the elytra, legs, antennae, and venter; absence of an elytral carina (Fig. 4c, e); and long first metatarsomere that is nearly the length of the remaining tarsus and pale except for extreme apex (Fig. 4d). Justification for proposing this new genus is presented in the Remarks, along with comparison to other genera of Acanthocinini.

Description. Length: 6.1–8.8 mm; width: 2.4–3.5 mm.

Head: Covered in vestiture of short, dense, appressed setae; impunctate. Median-frontal line well delineated and complete from clypeus to occiput. **Antenna:** Long, slender, extending beyond elytral apices by 4–6 antennomeres. Antennomeres with short pubescence only, mostly darker apically, pale basally. Antennal scape long, slender, reaching to near posterior margin of pronotum, narrowed basally but cylindrical at apical $\frac{3}{4}$, not swollen at middle, approximately as long as third antennomere, constricted at base. **Eye:** lower eye lobe large, quadrate to rectangular, over twice as long as gena and about twice as long as upper eye lobe; lobes connected by 4–5 rows of ommatidia. Upper eye lobes separated by about basal width of scutellum. **Mouthparts:** labrum, clypeus, and palpi very pale tan, much lighter in color than head and mandibles.

Thorax: Pronotum covered in short, appressed pubescence, mostly impunctate except for transverse row of punctures along posterior constriction. Pronotum without tubercles dorsally and with single, broad, lateral tubercle, posterolaterally positioned with subacute apex slightly elevated dorsally. Scutellum moderately pubescent, darker at sides than at apex and middle; broadly rounded posteriorly. Prosternal process almost $\frac{1}{2}$ width of procoxa at narrowest point, broadly expanded at apex to about midpoint of each procoxa, apex about equal to width of procoxa, closing procoxal cavities posteriorly. Mesosternal process between mesocoxae very broad, approximately 1.5 times width of prosternal process and slightly less than width of mesocoxa. Metasternum mostly impunctate with very shallow metasternal sulcus. **Elytra:** each with pronounced mediobasal pubescent tubercle with distinct depression posterior to it, otherwise covered in dense, appressed pubescence and lacking erect setae. Large punctures most evident on basal half. No distinct costae or carinae present, although the epipleural region is abruptly vertical from disk. Apices truncate to produced apicolaterally into a very weak spine-like process. **Legs:** metatibia distinctly longer than metafemur with very darkened apical third to half; first metatarsus elongate, slightly shorter than remaining metatarsomeres combined, pale except for extreme apex and tarsomeres 2–4) that are darkened.

Abdomen: mostly impunctate and covered in fine, appressed pubescence. Terminal ventrite about 1.5 times length of penultimate in both sexes. Median basal carina present in females.

Etymology. *Luctithonus* is formed from the Latin (*lucti-*), meaning struggle, truncated and appended to the genus name *Tithonus* to refer to its similarity to that genus and the difficulty in assigning it to any other existing genus in Acanthocinini. The genus name is masculine.

Remarks. Miguel Monné, in several works, divided the Neotropical Acanthocinini into groups to facilitate identification. His first treatment, Monné (1990), provided a key to the genera with a centro-basal crest and scattered stiff, erect setae on the elytra. Of the genera treated in Monné (1990), only *Lithargyrus* Martins and Monné (originally *Cometochus* Villiers, 1980), *Tithonus* Thomson (now *Leptocometes* Thomson), and *Oedopeza* Audinet-Serville are known from the Caribbean islands. Running this taxon through that key to genera, one arrives at couplet 12, *Oedopeza* Audinet-Serville (antennomere IV without a setal tuft, metatibiae cylindrical, each elytron with only one centro-basal crest, antennae and legs without long, erect setae, elytra without longitudinal carinae, mesosternal process as wide as mesocoxa, venter and tarsi without long setae). However, the absence of stiff, erect setae on the elytra actually would preclude us from using this key and arriving at *Oedopeza* or the other genera treated.

In a later work, Monné (2001), reviewed the genera of Acanthocinini with a basal elytral crest, lateral elytral carina, but without erect elytral setae. The genera included in that group are known only from South America. Running this taxon through the key, we arrive at couplet 1, *Acanthodoxus* Martins and Monné. However, the absence of a lateral elytral carina would exclude *Acanthodoxus* or any other treated genera as possibilities.

The works on the Cerambycidae of Puerto Rico (Micheli 2010), Lesser Antilles (Chalumeau and Touroult 2005), and Cuba (Zayas 1975; Devesa et al. 2019, although lacking a key to Acanthocinini genera of Cuba) were also consulted in an attempt to assign this taxon. Running it through the various keys, one arrives at *Alcidion* Sturm in couplet 7 of the Acanthocinini genera key in Micheli (2010), *Trypanidius* Blanchard in couplet 8, with some difficulty, in Chalumeau and Touroult (2005), and *Lethes* Zayas in couplet 9 of Zayas (1975). However, these genera share very few characters with this new taxon and as those keys are limited in scope, their utility for showing generic affiliation is minimal.

Superficially, species in this taxon are most similar to *Lithargyrus guadeloupensis* (Villiers), but lack anteromedial pronotal tubercles (the disc of the pronotum is evenly convex), lack erect setae on the elytra, and have elytral apices that are truncate to moderately produced apicolaterally (not spined). Species in the new taxon are also similar to *Leptocometes hispidus* Bates (1881), but that species has weakly spined elytral apices externally, weakly produced anteromedial pronotal tubercles, and long, erect elytral hairs. Therefore, given that the suite of characters in this taxon does not conform to any genera or generic groups, I propose the new genus, *Luctithonus*.

Type species. *Luctithonus aski* Lingafelter, new species, by present designation.

***Luctithonus aski* Lingafelter, new species**

(Fig. 5a, b, 6)

Diagnosis. This species is variable in size and maculation of the pronotum and elytra. All specimens have pubescence with a pale green tinge on the elytra. The antennal scape has a distinctly darker base and apex. The posterior margin of the apical black macula on each elytron is bordered by an angled patch of white pubescence.

Description. Length: 6.1–8.8 mm; width: 2.4–3.3 mm.

Head: Covered in vestiture of short, dense, ochre to pale green setae except for partially glabrous ring around base of antennal tubercle; impunctate. Narrow median-frontal line well-delineated. **Antenna:** Extending beyond apex of elytra by five antennomeres; covered with dense, appressed, semi-translucent brown pubescence. Antennomeres yellow-ochre with most segments having distinctly dark brown apices. Scape yellow-ochre with slightly darker brown apex and base; cylindrical beyond constricted base, extending beyond posterior margin of pronotum. Antennomeres 6–10 subequal in length to one another. Antennomere 11 curved, shorter than penultimate. **Eye:** lower eye lobe about 2.5 times longer than gena below it; nearly 2.5 times height of upper eye lobe; lobes connected by 3–4 rows of ommatidia. Upper eye lobes separated by about twice their thickness. **Mouthparts:** frontoclypeal margin with mostly appressed ochraceous setae, some of which extend to base of labrum; clypeus pale yellow, nearly glabrous. Labrum pale yellow with fringe of ochraceous setae at base, otherwise glabrous. Mandibles dark brown with appressed ochraceous pubescence on outer margins. Labial and maxillary palpi pale yellow, much lighter in color than head integument.

Thorax: Pronotum very broad (1.7–2.0 × wider than long) but narrower than elytral base; reddish-brown, mostly covered with appressed ochre, dark brown, and pale green pubescence creating a pattern of darker spots or fasciae mostly on middle of disk and lighter elsewhere; broad lateral tubercles with subacute apices posteromedially positioned. Pronotum mostly impunctate except for row of large, deep, non-seta bearing, ovoid punctures along posterior margin and extending behind lateral tubercles and, in some specimens, a few on center of disk. Scutellum piceous on lateral margins and, in most specimens, apex, reddish-brown elsewhere, impunctate, broadly rounded to sub-truncate posteriorly with white-ochre and dark brown, appressed setae. Prosternum impunctate and covered with short white and translucent, appressed setae; integument reddish-brown. Prosternal intercoxal process over 1/3 width of procoxa at narrowest point, very broadly expanded at apex, wider than procoxa, closing procoxal cavities posteriorly. Mesosternum short, distance between pro- and mesocoxae about the same as width of prosternal process between procoxae; covered in short white and translucent, appressed setae; integument reddish-brown and impunctate. Mesosternal intercoxal process over 1.5 times the width of prosternal process between coxae. Metasternum reddish-brown, covered with appressed, off-white and translucent pubescence; impunctate. **Elytra:** 4.3–6.5 mm long; each 1.2–1.6 mm wide; tapering toward

apex; covered in vestiture of short, appressed, dense, ochre, dark brown, and pale green setae forming dark maculae on outer margins and apical fourth. Large, oval, deep, non-seta bearing punctures scattered throughout, becoming less dense and shallower toward apex. Erect setae absent. Each elytron with pronounced mediobasal pubescent tubercle ornamented with slightly longer dark brown setae. Pronounced depression behind basal tubercles. Elytral apices obliquely truncate or produced apicolaterally into a very weak blunt process. Epipleural margin vertical and rounded to disk. *Legs*: covered in short, appressed white and brown pubescence, yellow except for vague, dark brown maculae on dorsum and venter of femora (often more extensive on profemora), basal third and apical half of tibiae, and apex of first and all of second and third tarsomeres. Legs relatively short with metafemora not extending to apical fifth of elytra.

Abdomen: Uniformly reddish-brown or with base of first ventrite and all of fifth ventrite dark brown; covered with short, appressed ochre or translucent setae; impunctate. Fifth ventrite of female 1.5 times longer than fourth ventrite and with short, longitudinal carina at base; fifth ventrite of male subequal in length to fourth and lacking basal longitudinal carina.

Etymology. The specific epithet, *aski*, is a patronym formed from the initials of Alexander S. Konstantinov, my colleague and friend who has joined me on many expeditions and contributed immensely to the knowledge of phytophagous beetles.

Type material. Holotype: Dominican Republic: Pedernales Province, Parque Nacional Sierra de Baoruco, Las Abejas, 1150 m, 11 July 2004, 18°09.011'N, 71°37.342'W, beating, Steven W. Lingafelter (male, USNM). **Paratypes: all Dominican Republic:** Pedernales Province, Las Abejas, 38 km NNW Cabo Rojo, 18°09'N, 71°38'W, 1250 m, 15 July 1987, Malaise trap, J. Rawlins, R. Davidson (1, CMNH); La Vega Province, Cordillera Central, Loma Casabito, 15.4 km NW Bonao, 19°02'00"N; 70°30'58"W, 1385 m, 28 May 2003, J. Rawlins, C. Young, R. Davidson, C. Nunez, P. Acevedo, disturbed evergreen cloud forest, UV light, sample 21312, Carnegie Museum Specimen Number CMNH-332,070 (1, CMNH); La Vega Province, Cordillera Central, Loma Casabito, 15.8 km NW Bonao, 19°02'12"N; 70°31'08"W, 1455 m, 28 May 2003, J. Rawlins, C. Young, R. Davidson, C. Nunez, P. Acevedo, disturbed evergreen cloud forest, east slope, hand collected, sample 21312, Carnegie Museum Specimen Number CMNH-289,004 (1, CMNH); San Juan Province, Sierra de Neiba, Sabana del Silencio, 10.0 km SSW El Cercado, 18°39'07"N; 71°33'21"W, 2009 m, 20 June 2003, J. Rawlins, C. Nunez, R. Davidson, C. Young, P. Acevedo, M. de la Cruz, cloud forest along *Danthonia* savannah, hand collected, sample 33242 (1, CMNH); Elias Pina Province, Sierra de Neiba, 9.3 km WSW Hondo Valle, 18°41'31"N; 71°47'03"W, 1901 m, 25 June, 2003, J. Rawlins, C. Young, R. Davidson, C. Nunez, P. Acevedo, M. de la Cruz, montane forest with *Podocarpus*, UV light, Carnegie Museum Specimen Number CMNH-330,918 (1, CMNH).

***Luctithonus duartensis* Lingafelter, new species**

(Fig. 5e, f, g, 6)

Diagnosis. The elytra and pronotum lack pubescence with a green tinge that is present in *L. aski* and *L. pantherinus*. Each elytron has a bold longitudinal black macula on the outer margin extending from the humerus, along the upper margin of the epipleuron and extending onto the disk, toward suture, at the apical fourth or fifth, not present in the other species. This portion is margined anteriorly with white pubescence. One or two additional small, white, pubescent maculae are present at the middle of each elytron which are otherwise reddish-brown. The scape is uniformly pale, reddish-brown or with a slightly darker base. The base of the antennal tubercles near the head midline are covered in very dark pubescence.

Description. Length: 6.2–6.5 mm; width: 3.0–3.5 mm.

Head: Covered in vestiture of short, dense, tan and golden setae except for dark brown setose ring around base of antennal tubercle; impunctate. Narrow median-frontal line well-delineated and extending from clypeal margin to occiput. *Antenna*: Extending beyond apex of elytra by four to five antennomeres; covered with very short, dense, appressed, semi-translucent brown pubescence with a few scattered longer, stiff setae, especially near the apex of some antennomeres. Antennomeres orange-ochre with most segments having subtly dark brown apices. Scape orange-ochre with extreme apex partially darker

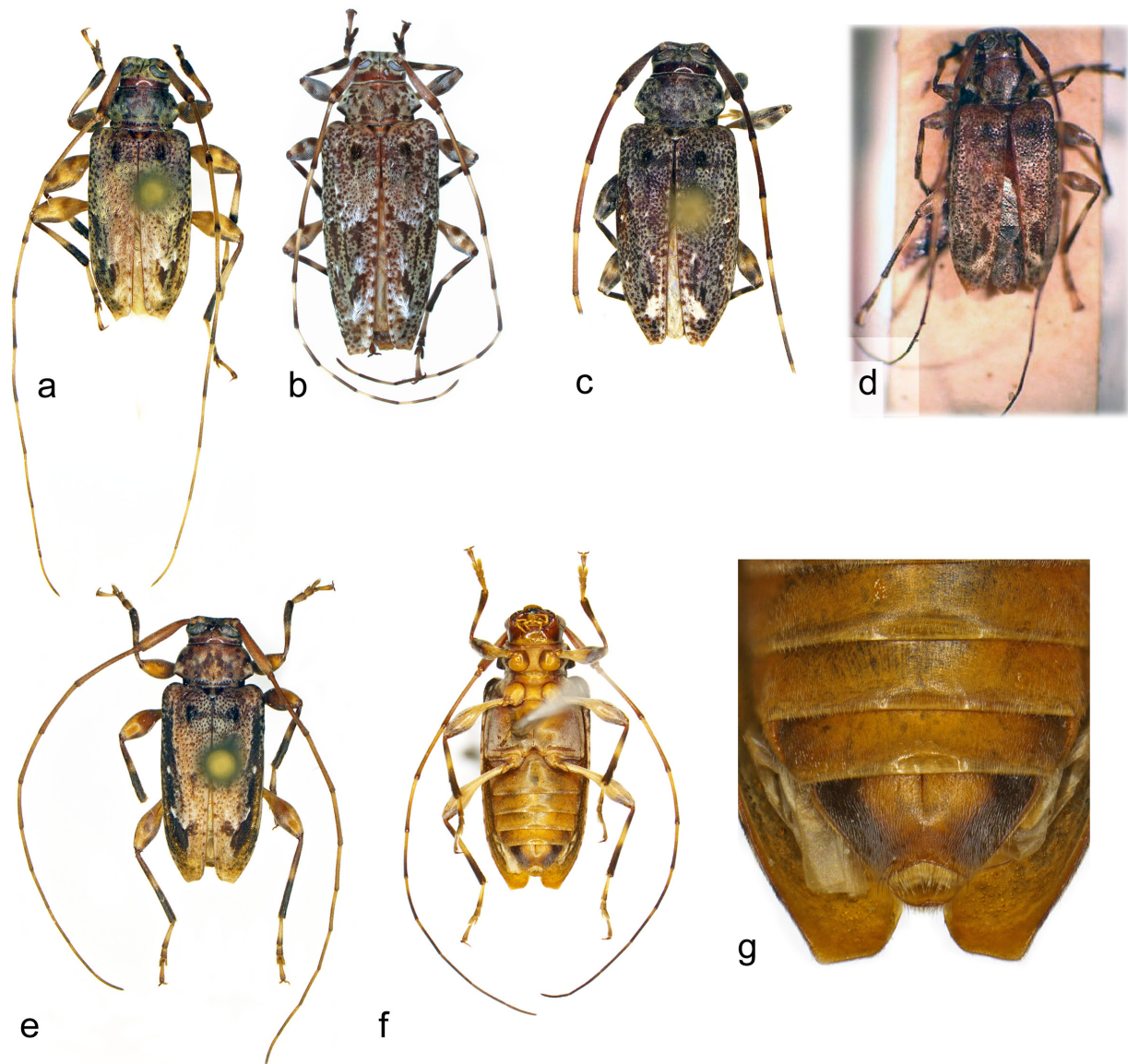


Figure 5. *Luctithonus* species. **a)** *L. aski* Lingafelter, new species, holotype male. **b)** *L. aski* Lingafelter, new species, paratype female. **c)** *L. pantherinus* (Zayas), **d)** *L. pantherinus* (Zayas), holotype male. **e)** *L. duartensis* Lingafelter, new species, holotype male, dorsal. **f)** *L. duartensis* Lingafelter, new species, paratype female, ventral. **g)** *L. duartensis* Lingafelter, new species, paratype female, ventral view of sternites.

brown and sometimes base with darker setae; cylindrical beyond constricted base, extending nearly to posterior margin of pronotum. Antennomeres 3–6 slightly decreasing in length successively; 6–10 subequal in length to one another. Antennomere 11 weakly curved, shorter than penultimate. *Eye*: lower eye lobe over 2.5 times longer than gena below it; over twice height of upper eye lobe; lobes connected by 3–4 rows of ommatidia. Upper eye lobes separated by a little more than 1.5 times their thickness. *Mouthparts*: frontoclypeal margin with mostly appressed golden semitranslucent setae (longer at sides), some of which extend to base of labrum. Clypeus pale yellow, nearly glabrous. Labrum pale yellow with fringe of ochraceous setae at base, otherwise glabrous. Mandibles reddish-brown with dark brown delineation on outer margin; mostly glabrous. Labial and maxillary palpi pale yellow, much lighter in color than head integument.

Thorax: Pronotum very broad ($1.8 \times$ wider than long) but narrower than elytral base; reddish-brown, mostly covered with appressed ochre, dark brown, and reddish-brown pubescence creating a pattern

of darker spots separated by lighter pubescent patches. Broad lateral tubercles present with subacute apices posteromedially positioned. Pronotum mostly impunctate except for row of large, deep, non-seta bearing, ovoid punctures along posterior margin terminating behind lateral tubercles; impunctate elsewhere. Scutellum piceous on lateral margins to apex with center and apex reddish-brown and mostly covered with ochre pubescence. Prosternum impunctate and covered with short vestiture of translucent, appressed setae; integument reddish-brown. Prosternal intercoxal process over 1/3 width of procoxa at narrowest point, very broadly expanded at apex, wider than procoxa, closing procoxal cavities posteriorly. Mesosternum short, distance between pro- and mesocoxae about the same as width of prosternal process between procoxae; covered mostly by short translucent, appressed setae; integument reddish-brown and impunctate. Mesosternal intercoxal process just under 1.5 times the width of prosternal process between coxae. Metasternum reddish-brown, covered with appressed and mostly translucent pubescence; impunctate. *Elytra*: 5.8–6.2 mm long; each 1.5–1.7 mm wide; tapering toward apex; covered in vestiture of short, appressed, dense, ochre, dark brown, and white setae. Dark brown macula extends from humerus along lateral margin and extends to middle of disk at apical fifth. Small patch of white pubescence present in dark macula at middle and apical third. Large, oval, deep, non-seta bearing punctures scattered throughout, becoming less dense and shallower toward apex. Erect setae absent. Each elytron with pronounced mediobasal tubercle ornamented with tuft of longer dark brown setae. Moderate depression behind basal tubercles. Elytral apices obliquely truncate with outer apex more produced than sutural apex. Epipleural margin vertical and rounded to disk. *Legs*: covered in short, appressed translucent, brown, and white pubescence. Femora moderately clavate, mostly yellow-orange with diffuse darker spots on ventral side. Tibiae with distal halves very dark brown, basal third light brown, and narrowly pale orange between. Tarsomeres mostly pale orange with apices of first, second, and sometimes fifth darker brown. Legs relatively short with metafemora not extending to elytral apex.

Abdomen: Uniformly pale reddish-brown in male; with fifth ventrite dark brown at sides in female; overall, distinctly lighter than ventral thorax; covered with short, appressed ochre or translucent setae; impunctate. Fifth ventrite of 1.5 times longer than fourth ventrite and with short, longitudinal carina at base in female (lacking in male).

Etymology. The specific epithet, *duartensis*, is named for the locality of Pico Duarte in the Dominican Republic where all the specimens have been collected.

Type material. Holotype: Dominican Republic: Pico Duarte Trail, Los Tablones, 3300', 19°08.222'N, 70°27.736'W, beating, 29 June 2004, S. Lingafelter (male, USNM). **Paratypes: all Dominican Republic:** Pico Duarte Trail, below La Compartición, 2450 m, 19°02.254'N, 70°58.155'W day collecting, 2 July 2004, Charyn J. Micheli (1, SWLC; 1, USNM), La Vega Province, Cordillera Central, 4.1 km SW El Convento, 18°50'37"N; 70°42'48"W, 1730 m, 31 May 2003, J. Rawlins, R. Davidson, C. Young, C. Nunez, P. Acevedo, dense secondary evergreen forest with pine, UV light, sample 22212, Carnegie Museum Specimen Number CMNH-316,766 (1, CMNH).

***Luctithonus pantherinus* (Zayas), new combination**

(Fig. 5c, 6)

Sternidius pantherinus Zayas 1975: 274, Plate 33b.

Type locality. Cuba: Altiplano of Las Mulas, near eastern Sierra Cristal (FDZC).

Remarks. Examination of a photograph of the holotype and the original description of *Sternidius pantherinus* Zayas (1975) reveals that this species has all the characters present in the new genus, *Luctithonus*. Additional specimen photographs were examined in Devesa et al. (2019). Most notably, the basal elytral tubercles with black setae (discussed in the description and evident in the photograph) exclude this taxon from *Sternidius* LeConte. *Luctithonus pantherinus* (Zayas) is therefore a new combination and removes the genus *Sternidius* from the Caribbean fauna. It is distinguished from the other species in the genus by the abundant dark, well-defined elytral punctures and the narrow, white, transverse, crescent-shaped pubescent macula near the elytral apex that extends from the suture to near the outer margin. Three

specimens of *L. pantherinus* were examined from the Barahona Peninsula and this represents a new island and country record for Hispaniola and the Dominican Republic.

Diagnosis. The elytra have pronounced punctures throughout, each with darkened perimeters. Lighter colored ochraceous to pale green pubescence is present over most of the remaining surface, giving a very spotted elytral appearance. An apical white macula is present near the suture of each elytron. It is larger and more crescent shaped in the holotype from Cuba and less developed in the specimens from the Barahona Peninsula in Hispaniola. An additional very small white macula is present at the outer middle of disk of each elytron. The scape is nearly imperceptibly darker basally and apically. The elytron length is short compared to the body length (about 72%). Length: 6.1–6.3 mm; width: 2.4–2.6 mm. Elytron length: 4.4–4.6 mm; width: 1.2–1.3 mm.

Hispaniola Records: Dominican Republic: Barahona Province, Filipinas, Larimar Mine, at light, 16–17 December 1995, R.E. Woodruff, 3300' (2, REWC); same data but 26 June–7 July, 1992, Skillman, Skelley, Woodruff, Blacklight (1, FWSC).

Key to species of *Lucitthonus*

1. Each elytron with longitudinal black macula on outer margin extending from humerus, along upper margin of epipleuron and onto disk toward suture, at the apical fourth or fifth; elytral pubescence without green tinge *L. duartensis* Lingafelter, new species
- Elytra without longitudinal black macula extending from humerus to apical fourth or fifth; elytral pubescence with at least partial green tinge 2
2. Elytra with abundant dark, well-defined elytral punctures throughout; narrow, white, transverse, crescent-shaped or ovoid pubescent macula near apex *L. pantherinus* (Zayas)
- Elytra with dark, well-defined elytral punctures most prevalent at base and outer margin, sparse on disk and near suture; pubescent patch at apex, if present, not crescent-shaped or ovoid *L. aski* Lingafelter, new species

Duocristala Lingafelter, new genus

(Fig. 7–9)

Diagnosis. This genus is most easily recognized by the presence of two strongly erect pubescent tufts on each elytron (Fig. 7a, d): one at the centro-basal position and one medially (Fig. 7d, e, f). Other



Figure 6. Distribution map of *Lucitthonus* species known from Hispaniola.

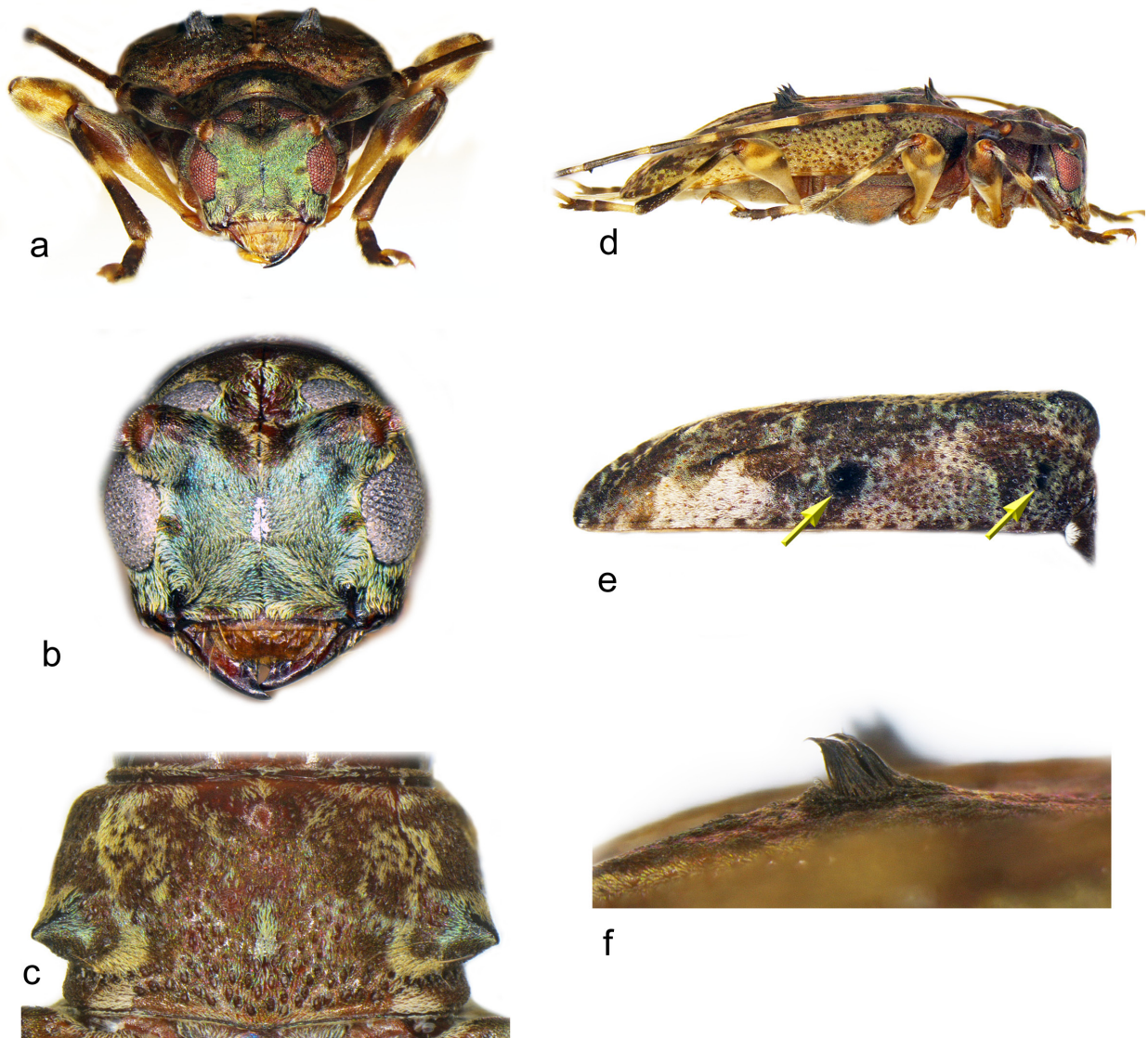


Figure 7. *Duocristala viridifrons* Lingafelter, new genus, new species. **a)** Anterior view, holotype male. **b)** Head, paratype male. **c)** Pronotum, paratype male. **d)** Lateral view, holotype male. **e)** Dorsal elytron, paratype male. **f)** Closeup of medial elytral tuft, holotype male.

characters include the strongly clavate femora (Fig. 8a, b), medially swollen antennal scape (Fig. 8a), long interocular seta on frons at edge of lower eye lobe (Fig. 7b), broad pronotum with strong, broad lateral tubercles and large, separate punctures (Fig. 7c), elytra without erect hairs (except for tufts), without a lateral carina, and with rounded apices (Fig. 7e). Justification for proposing this new genus is presented in the Remarks, along with comparison to other genera of Acanthocinini.

Description. Length: 6.2–6.7 mm; width: 2.4–2.6 mm.

Head: Covered in vestiture of short, dense, appressed green and blue-green setae; mostly impunctate. Median-frontal line well delineated and complete from clypeus to occiput. Frons with single long seta emerging from brown spot at middle edge of each lower eye lobe. **Antenna:** Long, slender, extending beyond elytral apices by about 5 antennomeres. Antennomeres with short pubescence only, distinctly pale yellow annulate at basal fourth and dark brown at apical three-fourths of antennomeres 6–11. Antennal scape reaching to just beyond lateral pronotal tubercles; thickened at middle. **Eye:** lower eye lobe large, over 1.5 times taller than gena and about twice as long as upper eye lobe; lobes connected by

4–5 rows of ommatidia. Upper eye lobes widely separated by about greatest width of scape. *Mouthparts*: labrum, clypeus, and palpi very pale yellow; terminal maxillary palpomeres elongate and pointed at apex; mandibles reddish-brown at basal half, piceous at apical half.

Thorax: Pronotum covered in short, appressed pubescence; large, oval, mostly separate punctures concentrated around most of disk with greatest concentration along posterior half and behind lateral tubercles, but also extending around and above tubercles; center of pronotal disk with few punctures. Pronotal disk without tubercles dorsally except for swollen anterior margin; with single, broad, lateral tubercle at each side, posterolaterally positioned with acute apex. Scutellum moderately pubescent, broadly rounded posteriorly. Prosternal process greater than 1/2 width of procoxa at narrowest point, broadly expanded at apex to about midpoint of each procoxa, apex about equal to width of procoxa, closing procoxal cavities posteriorly. Mesosternal process between mesocoxae slightly broader than prosternal process and about 2/3 width of mesocoxa. Metasternum mostly impunctate with very shallow metasternal sulcus that terminates at anterior third. *Elytra*: each with pronounced mediobasal and medial pubescent tuft emerging from very slight integumental bulge, otherwise covered in dense, appressed, mottled pubescence and lacking erect setae. Large, separate punctures most prevalent on basal half, becoming sparse and inconspicuous on apical half. No distinct dorsal costae or lateral carinae present; epipleural region not abruptly delimited. Apices rounded to suture. *Legs*: femora strongly clavate and pedunculate; mesotibia with strongly developed antennal cleaning notch on dorsal edge at apical 2/3. Femora mostly covered in pale yellow, appressed pubescence; tibiae mostly covered in dark, appressed pubescence with a pale yellow annulus at middle. First metatarsus distinctly shorter than remaining tarsomeres together.

Abdomen: mostly impunctate and covered in fine, appressed, pale pubescence. Terminal ventrite slightly longer than penultimate in males; median basal carina lacking in males; unknown in females.

Etymology. *Duocristala* is formed from the Latin *Duo*, meaning two, *crista*, meaning crest or plume, and *ala*, meaning wing, and together the elements refer to the two prominent setal tufts on each elytron. The genus name is feminine.

Remarks. As discussed earlier, Monné (1990), provided a key to the genera of Neotropical Acanthocinini with a centro-basal setose crest. Using the key, the new genus would go to couplet 2 (as the antennae lack a dense tuft of setae, then couplet 4 as the metatibiae are cylindrical, then couplet 5 as each elytron has two setose tufts. Couplet 5 terminates in two genera, both of which are known only from South America: *Trichalcidion* Monné and *Delfino* which is distinguished by having the tufts protruding strongly without the integument projecting and *Exalcidion* Monné which has tufts emerging from integumental projections. Both of these taxa possess strongly spinose elytral apices and dorsally tuberculate pronota, unlike the rounded apices and relatively smooth pronotal disk in this new taxon. Because this taxon lacks an elytral carina, it is excluded from the genera treated in Monné (2001), although it shares with them the lack of erect elytral setae (excluding the tufts). Superficially, this taxon is similar to *Leptocometes luneli* (Chalumeau and Touroult). Both share a centro-basal elytral crest, strongly clavate femora, and posteriorly positioned lateral pronotal tubercles. However, the absence of scattered, erect, elytral setae, presence of a pronounced medial elytral tuft, swollen antennal scape, and rounded elytral apices distinguish the new taxon. Therefore, given that no other genera have the suite of characters present in this taxon, and no genera of Acanthocinini with two elytral pubescent tufts are known from the Caribbean islands, the new genus, *Duocristala* is proposed.

Type species. *Duocristala viridifrons* Lingafelter, new species, by present designation.

***Duocristala viridifrons* Lingafelter, new species**

(Fig. 7–9)

Diagnosis. The prominent centro-basal and medial elytral tufts of long, black, setae and the bright green or blue-green front of the head are very distinctive features of this species. Other characters, including the medially swollen antennal scape, strongly clavate and pedunculate femora, basally pale-annulate antennomeres, and heavily punctate pronotum lacking dorsal calli, further distinguish this species from all others.

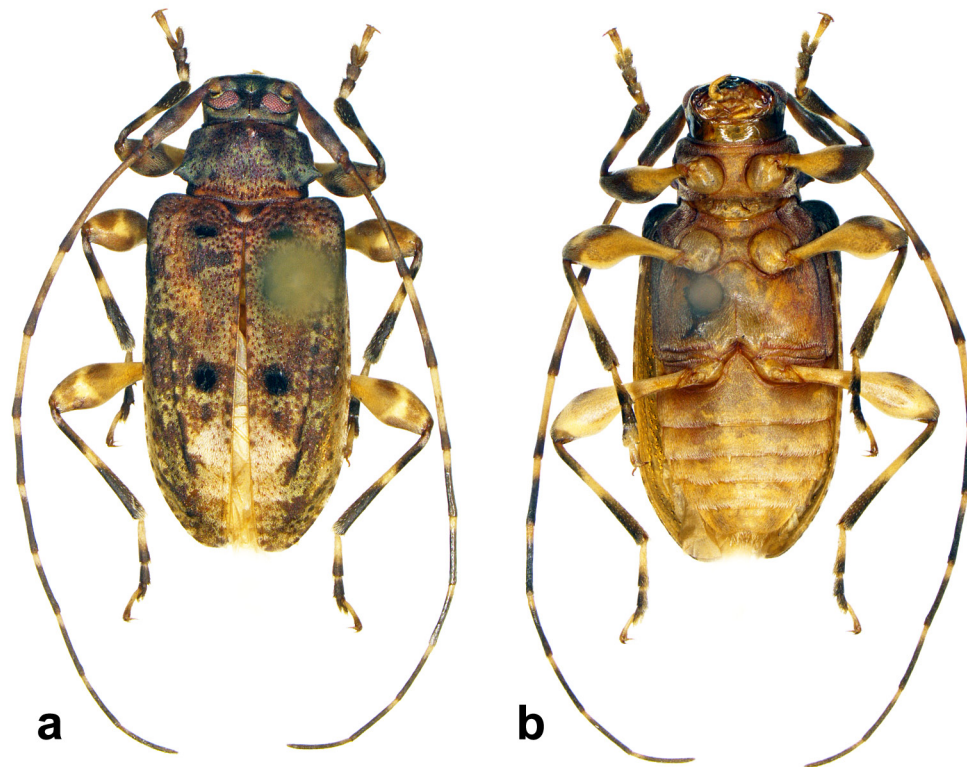


Figure 8. *Duocristala viridifrons* Lingafelter, new species. **a)** Dorsal, holotype male. **b)** Ventral, holotype male.

Description. Length: 6.2–6.7 mm; width: 2.4–2.6 mm.

Head: Covered in vestiture of short, dense, bright green or blue-green setae on frons and genae, mottled dark green and brown on vertex; impunctate. Narrow median-frontal line well-delineated. Distinct brown spot near lower eye lobe margin on each side, bearing a single, long, seta. **Antenna:** Extending beyond apex of elytra by five antennomeres; covered with dense, appressed, pale yellow setae, annulate at base of antennomeres 4–11, narrowly so on 6–10, very broadly on 5, indistinct on 11. Remaining parts of antennomeres are covered with mostly darker brown, appressed pubescence. Long setae absent. Scape, pedicel, and antennomere 3 darker brown and lacking distinct annuli. Scape swollen at middle to approximate width of upper eye lobe separation. Antennomeres 3–10 successively decreasing in length; 11 slightly curved and subequal to 10; third antennomere longest, 1.25× longer than scape; fourth antennomere subequal to slightly longer than scape. **Eye:** lower eye lobe large, over 1.5 times taller than gena and about twice as long as upper eye lobe; lobes connected by 4–5 rows of ommatidia. Upper eye lobes widely separated by about greatest width of scape. **Mouthparts:** frontoclypeal margin with mostly appressed green or blue-green setae and a few long, translucent setae extending across clypeus and half of labrum. Clypeus pale orange, nearly glabrous. Labrum pale orange with several long setae at base and apex, otherwise glabrous. Terminal maxillary palpomeres elongate and pointed at apex; mandibles reddish-brown on basal half, piceous on apical half.

Thorax: Pronotum very broad (1.8–1.9× wider than long) but narrower than elytral base; mostly covered with appressed, mottled green, ochre, tan, and dark brown pubescence creating a diffuse pattern of light and dark regions. Pronotum with pronounced, broad-based lateral tubercles with subacute apices posteromedially positioned; moderately punctate as described above. Scutellum with distinct white-pubescent apex, and darker elsewhere. Prosternum impunctate and covered with short pale yellow-brown and translucent, appressed setae; integument light reddish-brown. Prosternal and mesosternal intercoxal processes broad as described above. Procoxal cavities closed. Mesosternum and metasternum light reddish-brown, covered with appressed, light brown and translucent pubescence; impunctate.

Elytra: Tapering toward rounded apex; covered in vestiture of short, appressed, dense, ochre, white, brown, and pale green setae forming irregular patches; scattered erect setae absent except for two tufts of very long black setae mediobasally and medially. Large, separate punctures scattered on basal half, becoming sparse and inconspicuous on apical half. Epipleural margin not demarcated by a carina. *Legs*: Femora clavate and pedunculate as described; mostly pale yellow with suffusion of dark brown mottled spots, more so on pro- and meso-femora and less so on metafemora. Tibiae cylindrical and mostly dark brown with narrow yellow annulus at middle.

Abdomen: Uniformly light reddish-brown; covered with short, appressed light brown and translucent setae; impunctate. Fifth ventrite of male approximately as long as fourth ventrite, without longitudinal carina at base, broadly notched at apex.

Etymology. The epithet *viridifrons* refers to the bright green setae covering the front of the head.

Type material. Holotype: Dominican Republic: La Vega, 5-6 km SE Constanza, August 9, 1979, C. W. O'Brien (male, USNM). **Paratypes: all Dominican Republic:** La Vega, Cordillera Central, Reserva Valle Nuevo, La Nevera, 15.3 km SE Valle Nuevo, 18°41'39"N; 70°35'28"W, 2244 m., 3 June 2003, R. Davidson, C. Young, C. Nunez, J. Rawlins, P. Acevedo, M. de la Cruz. Wet montane forest with Pine, UV light, Sample 24512 (male, CMNH); La Vega Province, Parque Nacional Armando Bermúdez, Cordillera Central, Los Tablones, 3 September 1988, 1220 m., beating, M. A. Ivie and K. A. Johnson (male, WIBF).

Leptostylopsis opuntiae Lingafelter, new species

(Fig. 9, 10a, b)

Diagnosis. The tribe Acanthocinini contains several similar genera characterized by a similarly stout body and laterally tuberculate pronotum with variably developed dorsal calli. The relatively short antennae that extend beyond the elytral apices by only 2–3 antennomeres, the strongly laterally tuberculate pronotum with very subdued dorsal calli, and the mesosternal intercoxal process less than the width of each mesocoxa suggest that this species is best assigned to the genus *Leptostylopsis* as redefined in Lingafelter and Micheli (2009). Among the Hispaniolan *Leptostylopsis*, it is distinctive by having very reduced tubercles on the pronotal disk, antennae extending beyond the elytral apex by no more than three antennomeres, prominent mandibles extending considerably below and to sides of labrum, and by the distinctive light and dark brown mottling of the elytra with an angled median white fascia in most specimens.

Description. Length: 15–20 mm; width: 5–8 mm.

Head: Integument dark reddish-brown, covered throughout in dense, appressed, mottled white and brown pubescence, with exception of a narrow, median-frontal line extending from frontoclypeal margin to occiput. *Antenna*: covered with dense, appressed, mottled white, light brown, and dark brown pubescence; scape and antennomeres 3–9 with dark brown apices. Antennae longer than body, extending beyond elytral apices by 2–3 antennomeres. Antennomeres 5–11 each much shorter than 3. Scape extending to near posterior margin of pronotum. *Eye*: small, lower lobe less than height of gena below it; over twice thickness of upper eye lobe; lobes connected behind antennal tubercle by 3–4 rows of ommatidia at narrowest point. Upper eye lobes separated by slightly more than basal width of scape. *Mouthparts*: frontoclypeal margin with sparse fringe of short, white and translucent setae that extend only slightly across base of clypeus; clypeus orange, mostly glabrous, with a few long, translucent setae extending at sides to base of labrum. Labrum orange, with sparse short and long setae that are translucent or dark brown at the base. Mandibles prominent and extending considerably below and to sides of labrum.

Thorax: Pronotum integument dark reddish-brown; broad, rounded lateral tubercle positioned medially; dorsal tubercles barely evident at middle and anterolateral regions of disk. Mostly covered in mottled short, appressed ochraceous and dark brown setae with fewer white setae at base, on anterior of lateral tubercles, and at middle. Pronotum more abruptly constricted behind lateral tubercles and gradually narrowed to anterior margin in front of tubercles. Punctures sparse and inconspicuous except for posterior row connecting posterior edge of lateral tubercles. Scutellum broadly rounded posteriorly and covered with short, appressed, mottled white, brown, and ochraceous setae. Prosternum smooth, impunctate, covered with uniform, appressed, white or tawny pubescence. Prosternal process between

procoxae less than $\frac{1}{2}$ width of each coxa but expanded at apex to width of procoxa, closing procoxal cavities posteriorly.

Mesosternum reddish-brown, sometimes with margins piceous; smooth, impunctate, covered with uniform, appressed white and ochraceous pubescence. Mesosternal process between mesocoxae broad, about $\frac{3}{4}$ as wide as mesocoxa. Metasternum reddish-brown, sometimes with margins piceous; covered with appressed, off-white and ochraceous pubescence. *Elytra*: covered with combination of appressed, off-white, ochraceous, and dark brown pubescence usually forming a vague pattern of darker triangular region at base around scutellum and between humeri, an angled postmedial white fascia, a dark brown region between white fascia and elytral apex, and mostly ochraceous elsewhere. No erect setae present except for inconspicuous, barely elevated dark spot-like tufts along costae and suture. Humeri not projecting; elytra parallel-sided to apical third and then rounded to narrowly sub-truncate apex. *Legs*: dense, appressed, pubescent with mottled, white, dark brown and light brown setae. Femora paler than tibiae which are darker at base and apex. Tibiae approximately equal in length to femora; hind legs about $\frac{1}{3}$ longer than forelegs; metafemora of moderate length, extending to about base or middle of ventrite 5. Tarsi generally covered with short, appressed pubescence of similar color to apex of tibiae.

Abdomen: Ventrites impunctate, reddish-brown, sometimes piceous at sides; covered with appressed, mostly pale ochraceous pubescence, with scattered off-white setae. Fifth ventrite of females about $2\times$ length of penultimate, truncate to slightly concave at apex, with fringe of longer white and translucent setae at apex; lacking basal middle line. Fifth ventrite of males less than $2\times$ length of penultimate, broadly rounded and convex at apex, with fringe of longer white, ochraceous, and black setae at apex; lacking basal middle line.

Etymology. The epithet *opuntiae* refers to the plant that all known specimens were collected on, *Consolea moniliformis* (L.) A. Berger (formerly *Opuntia*), commonly called Necklacelike pricklypear.

Remarks. This is the only known species of *Leptostylopsis* associated with cacti and all specimens were collected at night walking on the living pads of *Consolea* [formerly *Opuntia*] *moniliformis* (L.) A. Berger (R. Turnbow, pers. comm.).

Type material. Holotype: Dominican Republic: Pedernales, 12 km N. Cabo Rojo, 18 May 1992, *Opuntia moniliformis*, R. Turnbow (female, FSCA). Paratypes: Same data as holotype (10, RHTC); Same data (1, USNM); Same data (2, SWLC); Same data (2, FSCA); Pedernales, 10.5 km N. Cabo Rojo, 9 July 1996, R. Turnbow (10, RHTC).

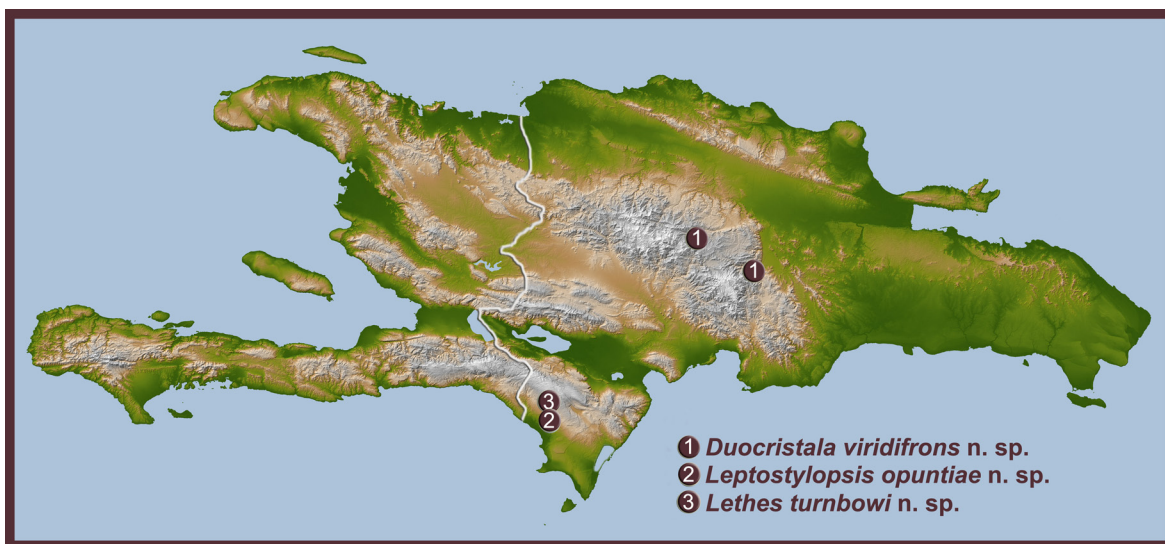


Figure 9. Distribution map of *Duocristala viridifrons* Lingafelter, new species, *Leptostylopsis opuntiae* Lingafelter, new species, and *Lethes turnbowi* Lingafelter, new species.

***Lethes turnbowi* Lingafelter**

(Fig. 9, 10c, d)

Diagnosis. The keys for the Cerambycidae of Puerto Rico (Micheli 2010), Lesser Antilles (Chalumeau and Touroult 2005), Cuba (Zayas 1975), and North America (Linsley and Chemsak 1995) were used in an attempt to assign this species. The absence of pronotal calli and lateral tubercles demonstrate an affinity to *Lethes* Zayas (formerly known only from Cuba and recently reviewed by Devesa et al. 2017), and distinguish it from all other acanthocinine genera in the Greater Antilles. This species is distinctive by the distinctly paler pubescent apical elytral third, and otherwise mostly dark brown integument. The single known specimen is also smaller than all other known specimens of *Lethes* which are 7–9 mm in length, with the exception of the recently revalidated *L. israeli* Zayas, which is similar in size (Devesa et al. 2017).

Description. Length: 6.2 mm; width: 2.8 mm.

Head: Integument mostly dark reddish-brown to nearly black on genae and light reddish-brown on occiput, covered throughout with appressed, ochraceous pubescence, with exception of a narrow, median-frontal line extending from frontoclypeal margin to occiput. **Antenna:** covered with dense, appressed, pale, light brown and dark brown pubescence; scape, pedicel, and antennomere 11 mostly dark brown, antennomeres 3–10 with dark brown apices. Antennae longer than body, extending beyond elytral apices by nearly 5 full antennomeres. Antennomere 3 longest, slightly longer than scape, 4–7 successively decreasing in length, each much shorter than 3, 7–11 subequal in length to one another. Scape extending just beyond middle of pronotum. **Eye:** small to moderate sized, lower lobe slightly taller than height of gena below it; nearly twice thickness of upper eye lobe; lobes connected behind antennal tubercle by 5 rows of ommatidia at narrowest point. Upper eye lobes separated by nearly twice the basal width of scape. **Mouthparts:** frontoclypeal margin with sparse fringe of long, translucent setae, some of which extend beyond apex of labrum. Clypeus orange, darker at base, mostly glabrous, with a few long, translucent setae extending at sides to base of labrum. Labrum orange, darker at base, with sparse short and long, translucent setae. Mandibles prominent and extending considerably below and to sides of labrum, with basal and apical thirds dark brown and middle third reddish-brown.

Thorax: Pronotum integument dark brown; distinctly broader than long, narrower than elytral base, lacking dorsal and lateral tubercles. Mostly covered in mottled short, appressed ochraceous and dark brown setae. Pronotum broadly rounded laterally, without constriction at anterior and posterior margin. Punctures sparse but deep and conspicuous; mostly arranged in row along posterior margin and a few scattered over disk. Scutellum broadly rounded posteriorly and covered with short, appressed, mottled brown and ochraceous setae. Prosternum dark brown, smooth, impunctate, covered with uniform, appressed, ochraceous and brown pubescence. Prosternal process between procoxae about ½ width of each coxa, expanded at apex to nearly width of procoxa, closing procoxal cavities posteriorly. Mesosternum dark brown, with margins reddish-brown; smooth, impunctate, covered with uniform, appressed brown and ochraceous pubescence becoming lighter and mottled at sides. Mesosternal process between mesocoxae short and very broad, wider than mesocoxa. Metasternum dark brown, covered with appressed, brown and ochraceous pubescence, becoming lighter and mottled at sides. **Elytra:** covered with combination of appressed, off-white, ochraceous, and dark brown pubescence with apical third or more of elytra distinctly paler than basal two-thirds, with the demarcation as a narrow, transverse, slightly zig-zagged, dark fascia. Periscutellar area and costae notably darker than surrounding regions. No erect setae present. Humeri not projecting; elytra parallel-sided to apical third and then rounded to narrowly truncate apex. **Legs:** dense, appressed, pubescent with mottled, off-white, dark brown and light brown setae. Femora clavate; mostly paler than tibiae. Tibiae are narrowly pale annulate at base and middle, and dark annulate at apical third and between pale annuli. Tibiae cylindrical, slightly narrower at base; longer than femora; middle and hind legs subequal and slightly longer than forelegs; extending to about base or middle of ventrite 5. Tarsi dark brown, of same color as tibial apices.

Abdomen: Ventrites impunctate, dark brown at middle, reddish-brown at sides; covered with appressed, short, mostly ochraceous pubescence, with slight fringe extending beyond apex of each sternite. Fifth ventrite slightly longer than penultimate, with broad notch at apex; lacking basal middle line.

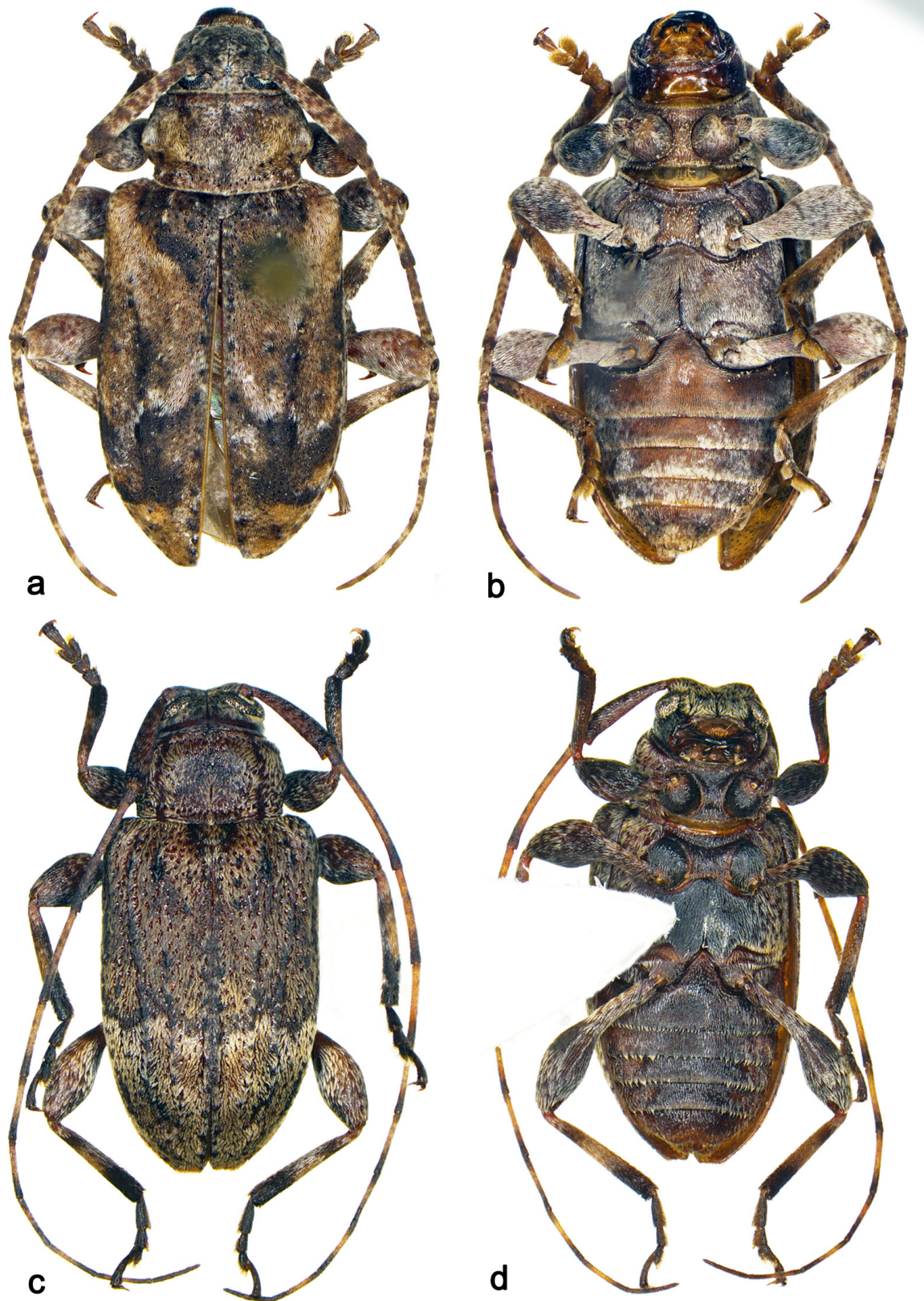


Figure 10. Holotype of *Leptostylopsis opuntiae* Lingafelter, new species. a) Dorsal. b) Ventral. Holotype of *Lethes turnbowi* Lingafelter, new species. c) Dorsal. d) Ventral.

Etymology. The epithet *turnbowi* is a patronym for the collector, Robert H. Turnbow, Jr., who has discovered many interesting longhorned beetles over his career.

Remarks. *Lethes Zayas* was formerly known only from Cuba and was represented by three species. Hispaniola and the Dominican Republic represent a new island and country record, respectively, for the genus.

Type material. Holotype: Dominican Republic: Pedernales, 25.5 km N. Cabo Rojo, 21 May 1992, R. Turnbow (male, FSCA).

Key to tribes of Lamiinae from Hispaniola

As discussed in Santos-Silva et al. (2019), many tribes in Lamiinae have been littered with such disparate genera to the point where they can no longer be defined based on any morphological features. Because of that, a key to tribes is impossible unless it includes many terminal taxa for each tribe in order to encompass the diversity of currently included genera. Global tribal revisions and synonymies based on all the genera are the only ways to remedy these issues. The key below can only be used for Lamiinae from Hispaniola, and caution is warranted especially for the couplets toward the end (Apomecynini, Desmiphorini, and Pogonocherini) which each contain heterogenous genera. Note that Devesa et al. (2019) just produced a key to tribes of Lamiinae of Cuba. Notable differences in the fauna of Hispaniola and Cuba include: Parmenini is represented in Cuba by three genera but absent from Hispaniola; Onciderini and Calliini are represented in Hispaniola by one genus each, but absent from Cuba.

1. Tarsal claws bifid or appendiculate **2**
— Tarsal claws simple **3**
- 2(1). Elytra covered in dense vestiture of short, appressed pubescence, usually aposematically colored with orange and black **Hemilophini**
— Elytra with mixture of erect and depressed setae, usually without bright aposematic coloration **Calliini**
- 3(1). Head triangular from lateral view, with eyes far from antennal tubercle and not notched **Agapanthiini**
— Head usually not triangular from lateral view, but if so, then eyes notched and located adjacent to antennal tubercle **4**
- 4(3). Antennal scape with a cicatrix at apex **5**
— Antennal scape lacking cicatrix at apex **6**
- 5(4). Cicatrix well developed, heavily sculptured, mostly glabrous; tarsal claws divaricate **Monochamini**
— Cicatrix not prominent, mostly evident by a raised subapical margin, punctures obscured by setae; tarsal claws divergent **Pteropliini**
- 6(4). Ant-like body with acute tubercle at elytral base, anteriorly elevated pronotum, and nearly divided eyes; size less than 3 mm **Cyrtinini**
— Not ant-like and lacking acute tubercles at elytral base; mostly larger than 3 mm **7**
- 7(6). Pronotum quadrate, not rounded or tuberculate at sides, slightly longer than wide; antennal tubercles pronounced with deep, convex notch between them **Onciderini**
— Pronotum not as above, laterally rounded or tuberculate, often wider than long; antennal tubercles moderate, with only slight notch between them, at most **8**
- 8(7). Scape strongly clavate or tuberculate apically; humeri prominent **Acanthoderini**
— Scape either conical and short or elongate and evenly enlarged apically; if slightly clavate, then humeri not produced **9**
- 9(8). Scape usually narrow, elongate, slightly and gradually expanded at apex, extending to about middle of pronotum or beyond (exceptions include *Eneodes* and *Eugamandus* which have shorter, thicker scape. *Eneodes* is recognized by the narrow, acute lateral

- pronotal projections and *Eugamandus* is recognized by the very small form with flightless morphology of unpronounced humeri and deflexed elytra posteriorly) **Acanthocinini**
- Scape short, usually slightly thickened at middle or evenly cylindrical, extending no further than anterior $\frac{1}{4}$ of pronotum **10**
- 10(9). Tarsal claws divaricate; pronotum with acute (but sometimes small) lateral tubercles; body and appendages usually with long, erect setae and short, depressed setae (exception includes *Atimiola* which is recognized by the pronounced punctures throughout the integument) **Desmiphorini**
- Tarsal claws divergent; pronotum without acute lateral tubercles **11**
- 11(10). Prosternal process very broadly expanded between procoxae, broader than width of each procoxa, and closing them posteriorly **Apomecynini**
- Prosternal process narrow or expanded to less than width of each procoxa . . . **Pogonocherini**

Key to genera of Hispaniolan Acanthocinini

1. Each elytron with one or two pronounced tufts of black setae **2**
- Each elytron without one or two pronounced tufts of black setae **4**
- 2(1). Antennae, legs, and elytra covered in very long setae, as long as tufts of setae at elytral base; pronotum with narrow, short, acute lateral tubercles **Eneodes Fisher**
- Antennae, legs, and elytra without long setae covering surface; pronotum with broad lateral tubercles **3**
- 3(2). Each elytron with one pronounced tuft of setae at base; antennal scape not swollen at middle **Lucithonus Lingafelter, new genus**
- Each elytron with one pronounced tuft of setae at base and another at middle; antennal scape swollen at middle **Duocristala Lingafelter, new genus**
- 4(1). Antennae much shorter than body; elytra deflexed at apical third **Eugamandus Fisher**
- Antennae extending to at least apex of elytra; elytra without distinct deflection at apical third **5**
- 5(4). Pronotum with narrow, acute, posteriorly positioned and posteriorly angled lateral tubercles and with a transverse row of punctures along posterior margin **Urgleptes Dillon**
- Pronotum with lateral tubercles either absent, very broad and indistinct, or positioned at middle and extending laterally **6**
- 6(5). Elytra with scattered, erect bristles in addition to short, depressed setae; outer elytral apex produced into pronounced spine **Alcidion Sturm**
- Elytra without scattered erect bristles; outer elytral apex sometimes sharply angled, but never produced into a long spine **7**
- 7(6). Robust, most longer than 1.5 cm.; inner margin of lower eye lobes with 3–6 setigerous punctures each bearing a single, long seta; lateral pronotal tubercle acute with a very broad base, centered, laterally projecting **8**
- Small, most less than 1.4 cm in length; inner margin of lower eye lobes with, at most, 1 setigerous puncture; lateral pronotal tubercles rounded or indistinct **9**
- 8(7). Mesosternal process with small central tubercle; disc of pronotum with pronounced tubercles; males with tuft of long setae at apex of sixth antennomere **Lagocheirus Dejean**
- Mesosternal process without tubercle between mesocoxae; disc of pronotum without tubercles or reduced tubercles; males lacking tuft of long setae on sixth antennomere **Trypanidius Blanchard**
- 9(7). Pronotal lateral margin evenly rounded, without lateral tubercle and constriction near base **Lethes Zayas**

- Pronotum with rounded lateral tubercle at middle or posterior to middle with constricted base
 10
- 10(9). Pronotal lateral margin broadly rounded around basal third with a small, rounded, posterolateral
 tubercle *Styloleptus* Dillon
- Pronotal lateral margin with middle rounded tubercle *Leptostylopsis* Dillon

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