RESEARCH ARTICLE



# The genus Leptostylopsis of Hispaniola (Coleoptera, Cerambycidae, Acanthocinini)

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## Abstract

The generic differences and similarities between *Leptostylus* LeConte and *Leptostylopsis* Dillon (Coleoptera: Cerambycidae: Acanthocinini) are discussed. *Leptostylopsis* is redescribed and the following species are transferred from *Leptostylus* to *Leptostylopsis*: *Leptostylopsis annulipes* (Fisher 1942), **comb. n.**; *Leptostylopsis poeyi* (Fisher 1925), **comb. n.**; and *Leptostylopsis viridicomus* (Fisher 1942), **comb. n.** *Leptostylopsis hispaniolae* (Fisher 1942) is a **syn. n.** of *Leptostylopsis annulipes* (Fisher 1942). Seven new species of *Leptostylopsis* from Hispaniola are diagnosed, described, and illustrated: *L. basifulvus* Lingafelter and Micheli, **sp. n.**; *L. humerofulvus* Lingafelter and Micheli, **sp. n.**; *L. perfasciatus* Lingafelter and Micheli, **sp. n.**; *L. puntacanaensis* Lingafelter and Micheli, **sp. n.**; and *L. thomasi* Lingafelter and Micheli, **sp. n.** Redescriptions and distributional data are provided for the six previously described species known from Hispaniola, and a dichotomous key to all thirteen species of *Leptostylopsis* from Hispaniola is provided.

## Keywords

Dominican Republic, Haiti, longhorned woodboring beetles, taxonomy, endemic species

# Introduction

The Acanthocinini is one of the largest and most taxonomically confusing tribes in the family Cerambycidae. There are 148 genera in the New World alone (Monné 2005; Monné and Bezark 2009), many of which are in need of revision. The primary source of confusion is the abundance of new and described species. The discovery and description of new species frequently reveals that original generic definitions are unnatural. Solutions include broadening the generic definitions to legitimately include more species that share many features or proposing generic synonymies so that narrowly defined, but very similar genera, are merged to encompass all the species that share characters of the type species.

The New World genera *Leptostylus* LeConte (1852) and *Leptostylopsis* Dillon (1956) are examples of this type of taxonomic chaos. Micheli (2006) alluded to this problem when she wrote: "Thorough examination of many specimens of several different genera within Acanthocinini such as *Leptostylopsis*, *Leptostylus*, *Styloleptus*, and the former *Antilleptostylus* has been done looking into the validity of the prosternal width as a character to distinguish between closely related genera. It has been concluded that the slight differences seen between species and sexes is quite variable and that the definition of a genus, at least of those examined here, should not rest on such a continuous character."

Leptostylus and Leptostylopsis are both relatively species rich genera (Leptostylus has 79 species; Leptostylopsis has 23 prior to this work). When Leptostylus was proposed by LeConte (1852), it was based on nine species from the United States. No type species was originally designated, but Thomson (1864) subsequently designated the wide-spread taxon, Lamia aculifera Say, 1824 (a synonym of Leptostylus transversus Gyllenhal, 1817). Since then, 70 additional species, mostly from Central and South America, and described by many authors, have been placed in Leptostylus. LeConte defined Leptostylus based on "the shortness of the basal joint of the posterior tarsi. The appearance is that of Mesosa: the thorax is tuberculous on the disc, and more or less prominent on the sides; the elytra are very slightly truncate at the tip."

Leptostylopsis was proposed by Dillon (1956) based on four species from eastern and southern United States (some of which also occurred on Caribbean islands). He designated Leptostylus terraecolor Horn (1880) as the type species. He did not assess how the Caribbean "Leptostylus" species, mostly described by Fisher (1925, 1932, 1942), conformed to Leptostylopsis. Recently, Micheli and Micheli (2004) described three additional species of Leptostylopsis from Puerto Rico. Prior to our current study, Leptostylopsis contained 23 species.

Dillon distinguished *Leptostylopsis* from *Leptostylus* as follows: "this genus [*Lepto-stylopsis*] differs in the less strongly tuberculate pronotal disk, and the longer antennae with the fifth and sixth antennomeres much longer, the latter being about 2/3 as long as first. Furthermore, the shape and breadth of the front are distinctive, and the mesos-ternal process is broader, exceeding, as a rule, a mesocoxal cavity in width."

In this work, we broaden the definition of *Leptostylopsis* to include all species from Hispaniola formerly placed in *Leptostylus*. We provide descriptions of the 13 species

of *Leptostylopsis* from Hispaniola (including 7 new to science). All species, except *L. argentatus* (Jacquelin du Val), are apparently endemic to Hispaniola. We provide a dichotomous key to all the species, along with distribution maps and anatomical figures, and a list of all currently recognized species in *Leptostylopsis*. This work is part of the groundwork necessary for the preparation of a *Field Guide of Longhorned Beetles of the Dominican Republic*, and is the penultimate in a series of papers describing the fauna (Lingafelter 2008, Lingafelter and Nearns 2006, 2007, Lingafelter and Woodley 2007).

# Methods

The material consulted in this study is primarily the result of expeditions from the Smithsonian Institution (present authors), Carnegie Museum (John Rawlins and Robert Davidson), Florida State Collection of Arthropods (Michael Thomas), and The West Indian Beetle Fauna Project (Michael Ivie), along with individual collections of James Wappes, Edmund Giesbert, Robert Woodruff, Eugenio Nearns, Norman Woodley, Alexander Konstantinov, Kelvin Guerrero, and many others.

The following collections were examined in the course of this study (curators and/ or contact persons listed for most). Collections at the AMNH and MCZC were examined via images on their online databases (AMNH, 2009; MCZC, 2009). Images of holotypes described in this paper are available at Lingafelter and Nearns (2009). While some of these collections did not contain material of the Hispaniolan species described below, they all proved invaluable for making species identifications. Of particular note is the Zayas collection which was examined by Eugenio Nearns (Nearns et al., 2006). Some material from USNM and CMNH representing the included species ultimately will be deposited in the DRMC:

AMNH	American Museum of Natural History, New York, NY, USA (L. Herman)
CMNC	The Canadian Museum of Nature Collection, Ottawa, Canada (R. Anderson)
CMNH	Carnegie Museum of Natural History, Pittsburgh, PA, USA (J. Rawlins, R.
	Davidson, R. Androw)
DRMC	Museo Nacional de Historia Natural, Santo Domingo, Dominican Repub-
	lic (K. Guerrero)
EFGC	Edmund F. Giesbert Collection, Gainesville (at FSCA), FL, USA (M. Thomas)
ENPC	Eugenio Nearns Private Collection, Albuquerque, NM, USA
FDZC	Fernando de Zayas Collection, Havana, Cuba (the Zayas Family)
FSCA	Florida State Collection of Arthropods, Gainesville, FL, USA (M. Thomas)
JCPC	Julio and Charyn Micheli Private Collection, Ponce, Puerto Rico, USA
JEWC	James E. Wappes Private Collection, San Antonio, TX, USA
MCZC	Museum of Comparative Zoology, Harvard University, Cambridge, MA,
	USA (B. Farrell)
MNRJ	Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro,
	RJ, Brazil (M. Monné)

RHTC	Robert H. Turnbow, Jr. Private Collection, Ft. Rucker, AL, USA
RWPC	Robert Woodruff Private Collection, Gainesville, FL, USA
USNM	Smithsonian Institution, Washington, DC, USA (S. Lingafelter)
WIBF	West Indian Beetle Fauna Project, Bozeman, MT, USA (M. Ivie)

Label data are mostly verbatim, but redundancy among paratypes is minimized by not repeating identical localities from specimens from the same institution. Specimen data are grouped in alphabetical order by provinces (which are not repeated for brevity) and by depository within each province. Haiti records are listed after Dominican Republic Records.

#### Leptostylopsis Dillon, 1956

**Type species:** *Leptostylus terraecolor* Horn, 1880, by original designation (Dillon 1956). Maps 1-12, Figs 1-117

Diagnosis. Leptostylopsis can be confused only with Leptostylus, Fisherostylus Gilmour 1963, and Styloleptus Dillon 1956. Leptostylopsis differs from Leptostylus (using primarily the type species L. transversus Gyllenhal) by its longer scape (not extending beyond middle of pronotum in *Leptostylus*); longer antennae (often as long as body or longer) with antennomeres 6-11 longer than 3-5 [except females of L. poeyi] (in Leptostylus, the antennae are about the length of the body or shorter and 6-11 are subequal to or shorter than 3-5); a well-defined, vertical epipleuron (less defined in Leptostylus); the mesosternum between mesocoxae at least as wide as a mesocoxa, often  $1.1-1.3 \times$  width of mesocoxa (narrower than mesocoxa in most *Leptostylus* species); and its relatively long terminal ventrite, usually around  $2 \times as$  broad as long, with a glabrous midline in females of most species  $(2.5 \times as broad as long and without glabrous midline in$ most Leptostylus). Fisherostylus, a monotypic genus which is known only from Cuba and the Bahamas, probably should be synonymized with Leptostylopsis since it shares the features of most species based on our redefinition. However, it is distinctive as a species with its boldly patterned elytra and white pubescent pronotum and cannot be confused with any species from Hispaniola. Styloleptus, which has seven described species in Hispaniola, differs from Leptostylopsis (and Leptostylus) by the broad, rounded lateral pronotal tubercle positioned at the basal 1/3 of the pronotum and the pronotal disk lacking distinct dorsal calli or tubercles (Micheli, 2006).

**Redescription.** Length: 5 mm [small specimens of *L. terraecolor* (Horn) & *L. ar-gentatus* (Jacquelin du Val)] – 15 mm [*L. puntacanaensis*, sp. n.]; width (at elytral base): 2 mm [small specimens of *L. terraecolor* (Horn)] – 6 mm [*L. puntacanaensis*, sp. n.].

*Head*: Short, broad, flattened anteriorly with vertical frons; covered in dense, appressed, tawny or brown pubescence throughout with exception of narrow, median line on frons (median-frontal line), variably evident in different species, and glabrous line extending from anterior tentorial pits along anterior margin of genae to base of mandible (fronto-genal line). Median-frontal line extending from fronto-clypeal

margin to between lower eye lobes [complete to vertex and occiput in L. cristatus (Fisher) or mostly covered by pubescence in L. annulipes (Fisher), L. milleri (Fisher), L. viridicomus (Fisher), L. chlorescens, sp. n., and L. basifulvus, sp. n.]. Fronto-genal line sometimes extending to lower eye-lobe margin as in L. puntacanaensis. Antenna: 11-segmented, without spines or modification to antennomeres; covered with dense, appressed pubescence (white or tawny, but not completely obscuring integument); somewhat less dense along middle parts of antennomeres, mottled in appearance; integument darker at apex and base of most antennomeres, annulate in appearance (except L. humerofulvus, sp. n., that lacks annula on scape). Last antennomere in most species uniformly dark, without annulae, of similar coloration to apex of penultimate antennomere (except some specimens of L. perfasciatus, sp. n., L. puntacanaensis, L. humerofulvus, and L. albosignatus Fisher). Antennae longer than body in males, extending beyond apices typically by 3-4 antennomeres (4-6 in L. perfasciatus and L. puntacanaensis). In females, antennae shorter, but still extending beyond elytral apices by at least 3 antennomeres in most species (but less than 1 antennomere in most L. poeyi (Fisher) specimens, at least 4 in L. perfasciatus and L. puntacanaensis). Dimorphism in antennal length; antennomeres 6-11 relatively longer in males than females. In males, last antennomere usually shorter than penultimate; in females, usually subequal, but still shorter overall than in males. Antennal scape gradually enlarged apically, without cicatrix; extending to posterior 1/3 or 1/4 of pronotum in most species (however, more thickened and shorter in *L. poevi*, not extending to middle of pronotum; extending to near posterior margin in L. thomasi, sp. n.). Eye: small, coarsely faceted, deeply notched, embracing moderately prominent antennal tubercle; lower eye lobe usually about as tall as gena below it and over 2 × height of upper eye lobe (however, much smaller in L. terraecolor (Horn), L. argentatus (Jacquelin du Val), L. milleri (Fisher), and L. puntacanaensis); lobes connected by 4-8 rows of ommatidia in most specimens. Upper eye lobes separated by about greatest width of scape or more in most species (usually about 1.1 × width of scape, but much closer together in *L. poeyi* and *L. humer*ofulvus). Mouthparts: frontoclypeal margin with fringe of short pubescence extending to about base of labrum (but longer at sides); clypeus without pubescence except at extreme base. Labrum coated with dense, mostly appressed, white or tawny pubescence with 8-10 long, suberect, translucent setae. Labial and maxillary palpi typical of Lamiinae with apical palpomeres conical, longer and narrower than penultimate.

Thorax: Pronotum with rounded lateral tubercles with greatest projection slightly behind middle in most specimens (more acute in some species: e.g., *L. thomasi, L. puntacanaensis*, and *L. chlorescens*, sp. n.); with raised dorsal tubercles of following arrangement: large ovoid prominence at middle (usually the largest, but *L. milleri* and *L. basifulvus*, sp. n., are exceptions), surrounded by four other prominences (two anterolateral and two posterolateral). Middle prominence typically highest, partially devoid of pubescence; in some species, anterolateral elevations smaller but more elevated. Pronotum usually with anteromedial and posteromedial elevations at margins. Pronotum mostly covered in appressed, ochraceous, white, off-white, iridiscent green, and/or black pubescence in some combination. Pronotum with black maculae around

margins and sometimes at center, in varying patterns; sometimes with ochraceous patches of pubescence (e.g., L. annulipes and L. basifulvus, sp. n.). Pronotum slightly constricted before anterior and posterior margins; constrictions (particularly posteriorly) lined with row of separate, large punctures. Additional punctures scattered over pronotal disk, often mostly obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed pubescence of similar color to rest of venter. Prosternal process often very broad between procoxae, usually about 0.7-1.1 times width of procoxa in most specimens (but much narrower in L. poeyi, L. viridicomus, and L. *puntacanaensis*); apex greatly expanded to middle of posterior margin of coxa on each side, closing procoxal cavities posteriorly. Scutellum moderately to densely pubescent; broadly rounded posteriorly in most species, occasionally subtriangular (e.g., L. thomasi). Mesosternum smooth, impunctate, covered with uniform, appressed pubescence of similar color to rest of venter, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae very broad, widely separating mesocoxae, at least 1.0-1.5 × width of mesocoxa (widest in L. argentatus, narrowest in L. poeyi and L. thomasi). Mesosternum without ventral protuberance and without lateral projections into mesocoxae. Metasternum about length of first two ventrites combined, or longer; deeply indented posteriorly at middle to accommodate triangular extension of first sternite between metacoxae; covered with appressed pubescence of similar color to remainder of venter, often more mottled at sides and lateral thoracic sclerites. *Elytra*: covered with mostly appressed, white, tawny, dark brown, or iridescent green pubescence (or some combination), with rows of small tubercles generally along costae and sometimes along suture. Tubercles at base of elytra most prominent, sometimes forming pronounced crests with tufts of pubescence erupting from apices (as in L. cristatus and L. thomasi). Humeri projecting slightly, in some species denuded at apex and marked at anterior margin (base) with black macula. Epipleuron pronounced, vertical or subvertical. Elytral apex subtruncate or truncate, without spines or acute projection. Legs: mostly uniformly pubescent with appressed hairs (white, off-white, tawny, iridescent green, or some combination) throughout; apex of tibiae annulate with darker or translucent pubescence or less dense pubescence revealing darker integument. Femora moderately to strongly clavate, abruptly narrowed into basal peduncle (clavate portion and peduncle portion each about equal in length on hind and middle legs; clavate portion about 4 times longer than peduncle on forelegs); tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to about abdominal apex. Tarsomeres 1 and 2 (at least) generally coated with short, appressed, white or off-white pubescence (tarsi all black and similar in coloration to tibial apex in L. poeyi, L. milleri, L. perfasciatus, and L. thomasi).

*Abdomen*: Five visible ventrites covered with appressed, white, off-white, tawny, or green pubescence (or some combination), often more mottled at sides. First ventrite with prominent triangular projection mesally between metacoxae; fifth ventrite in females often narrowed and extended at middle, longer than in males, usually over  $2 \times as$  broad as long,  $1.3-1.4 \times as$  broad as long in *L. cristatus* and *L. caliginosus*, sp. n., usually with glabrous midline at base, extending toward apex for 1/3 or more of overall length.

**Remarks.** It is necessary to broaden the definition of *Leptostylopsis* to accommodate the many species described in the genus since originally proposed by Dillon (1956) (and to appropriately place the taxa originally described in *Leptostylus*). Dillon's separation of the genera based on the level of tuberculation of the pronotal disk, antennal length, and mesosternal process no longer functioned. These genera are still in need of revision, as are many in Acanthocinini. *Leptostylus* itself contains 79 described and many more undescribed species and undoubtedly includes many that should be transferred to *Leptostylopsis* or perhaps other new genera, since they lack characters of the type species. For example, some Central American *Leptostylopsis* (e.g., *L. palliatus* Bates) have a distinct lateral tubercle on each side of the mesosternal process between the mesocoxae that fits into a corresponding indentation on the mesocoxae. This character alone defines a subset of *Leptostylus* that could be used as a character for a new genus. There are many other characters that certainly will be found upon careful revisionary work in the tribe, but this is beyond the scope of this regional treatment.

## Leptostylopsis annulipes (Fisher, 1942), comb. n.

Map 1, Figs 3, 16, 31, 46, 61, 76, 90, 105

Leptostylus annulipes Fisher, 1942:28 Leptostylus hispaniolae (Fisher, 1942):30 Leptostylopsis hispaniolae (Fisher, 1942):30, syn. n. Leptostylopsis hispaniolae; Gilmour, 1963:59

**Diagnosis**. This species is similar to *Leptostylopsis milleri* (Fisher) but has the setae atop the elytral tubercles appressed (partially erect in *L. milleri*). It also is similar to *Leptostylopsis antillarum* (Fisher), a species not known from Hispaniola, but differs in having a dark, black macula at the base of the humeri (absent in *L. antillarum*). Most specimens have some elytral pubescence with a greenish tinge combined with ochraceous pubescence concentrated at the basal and apical 1/4 of the elytra and on the pronotum (most specimens of *L. antillarum* have more uniformly colored pubescence without a greenish tinge or in ochraceous patches.) *L. annulipes* is also very similar to *Leptostylus castaneovirescens* Zayas, a species known only from Cuba and which can be distinguished by its longer antennae (Zayas, 1975). The pubescence patterns appear to be very similar between the two species, and *L. castaneovirescens* may be conspecific with *L. annulipes*.

Careful examination of the paratypes of *L. hispaniolae* (Fisher) show them to be conspecific with *L. annulipes*. The holotype of *L. hispaniolae* is somewhat unusual in having a bold white fascia at the middle of the elytra, but it appears to be nothing more than a dramatically patterned specimen. Examination of many other specimens of *L. annulipes* shows that the white macula is variably developed, and the holotype of *L. hispaniolae* merely represents an extreme of this variation.

Redescription. Length: 7.0-10.0 mm; width: 3.5-4.0 mm.



**Figures 1-5.** Dorsal habitus photographs. I *Leptostylus transversus* Gyllenhal **2** *Leptostylopsis terraecolor* Horn **3** *Leptostylopsis annulipes* (Fisher) **4** *Leptostylopsis argentatus* (Jacquelin du Val) **5** *Leptostylopsis basi-fulvus* Lingafelter & Micheli.



Figures 6-10. Dorsal habitus photographs. 6 *Leptostylopsis caliginosus* Lingafelter & Micheli 7 *Leptostylopsis chlorescens* Lingafelter & Micheli 8 *Leptostylopsis cristatus* (Fisher) 9 *Leptostylopsis humerofulvus* Lingafelter & Micheli 10 *Leptostylopsis milleri* (Fisher).

Head: Covered throughout in dense, appressed, mottled tawny, white, or pale green pubescence, with exception of a mostly obscured, narrow, median-frontal line extending from fronto-clypeal margin to between lower eye lobes and short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, mottled white and tawny pubescence; annulate at apex and base of most antennomeres. Last antennomere uniformly dark, without annulae, of similar coloration to apex of penultimate antennomere. Antennae longer than body, extending beyond apices by 3-4 antennomeres. In both sexes, last antennomere subequal to penultimate. Antennal scape extending to posterior 1/3 or 1/4 of pronotum. Eye: lower eye lobe about as tall as gena below it; over 2 × height of upper eye lobe; lobes connected by 4-6 rows of ommatidia in most specimens. Upper eye lobes separated by little more than greatest width of scape. Mouthparts: frontoclypeal margin with fringe of short pubescence extending about halfway to base of labrum; clypeus without pubescence except at extreme base. Labrum coated with dense, mostly appressed, white or off-white pubescence with 8-10 long, suberect, translucent setae.

Thorax: Pronotum with very slightly protuberant, broadly rounded lateral tubercles with greatest projection slightly behind middle; with weakly raised dorsal tubercles with following arrangement: large oval prominence at middle, surrounded by four smaller prominences (two anterolateral, two posterolateral). Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in appressed pubescence of several colors (white, pale green, tawny, and ochre). Ochraceous pubescence forms two indistinct anterolateral maculae. Pronotum with slight constriction before anterior and posterior margins, with constrictions (particularly posteriorly) lined with row of separate, large punctures. Additional smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, white or tawny pubescence. Prosternal process broad between procoxae, about 3/4 width of procoxa in most specimens. Scutellum moderately to densely tawny or ochraceous pubescent (occasionally with white pubescence at base and pale iridescent green pubescence at apex); broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed pubescence, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae very broad, widely separating mesocoxae by about 1.25 × width of mesocoxa. Metasternum covered with appressed, white, offwhite, to slightly pale green pubescence, becoming mottled at sides and on lateral thoracic sclerites. *Elytra*: covered with combination of mostly appressed, white, tawny, ochraceous, or iridescent green pubescence; with pattern of variably developed white pubescence broadly across middle 1/3, bordered posteriorly by short, transverse black macula emanating from suture; additional dark, vaguely defined macula posterior to basal elytral elevations. Rows of small tubercles present, generally following along costae and very weakly along suture. Tubercles at base of elytra most prominent, forming weak crests. Humeri projecting slightly, marked at anterior margin (base) with black macula that corresponds to small black macula on prothorax. Epipleuron with vague iridescent pale green pubescence in most specimens. Elytral



**Figures 11-15.** Dorsal habitus photographs. **11** *Leptostylopsis perfasciatus* Lingafelter & Micheli **12** *Leptostylopsis poeyi* (Fisher) **13** *Leptostylopsis puntacanaensis* Lingafelter & Micheli **14** *Leptostylopsis thomasi* Lingafelter & Micheli **15** *Leptostylopsis viridicomus* (Fisher).

apex subtruncate, with outer apical angle more produced posteriorly than sutural angle. *Legs*: mostly uniformly pubescent with appressed hairs (white, tawny, iridescent green, in some combination), somewhat mottled; apex and basal 1/3 of tibiae annulate due to less dense pubescence exposing darker integument. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to about abdominal apex. Tarsi generally covered with short, appressed, pale pubescence; apex of fifth tarsomere sparsely pubescent, dark.

*Abdomen*: Ventrites covered with appressed, white, tawny, or iridescent green pubescence (or some combination), becoming splotchy at sides. Fifth ventrite about  $2.3 \times$  broader than long in females; narrowed and extended at middle, with glabrous midline at base, extending toward apex for 1/3 or more of overall length.

**Distribution**. Endemic to Hispaniola, this species is known from southeastern Haiti and throughout the Dominican Republic (Map 1). With the synonymy of *L. hispaniolae*, the holotype of which is from Port-au-Prince, Haiti represents a new country record. This species previously was recorded only from the Dominican Republic by Perez-Gelabert (2008) and Monné and Bezark (2009).

**Remarks**. This species has been collected from April through September at lights, by beating, and in flight intercept traps.

Type material examined: Holotype of *L. annulipes* (Fisher): DOMINICAN RE-PUBLIC: Sánchez, July 1938, P.J. Darlington, Jr. (MCZC); Paratypes of *L. annulipes* (Fisher): same data as holotype (USNM, 2); Holotype of *L. hispaniolae* (Fisher): HAI-TI: Kenskoff, near Port-au-Prince, 4000-6000 ft, 2 September 1934, P.J. Darlington, Jr. (MCZC); Paratype of *L. hispaniolae* (Fisher): DOMINICAN REPUBLIC: Haina, 1920, G.N. Wolcott (USNM).

Other material examined: DOMINICAN REPUBLIC: Baoruco Prov., August 1967 (MNRJ, 1); Barahona Prov., Filipinas, 625 m, 18°07.339'N, 71°07.152'W, blacklight/night beating, 6 July 2004, C.J. Micheli (JCPC, 1); 11 km S Barahona, 15 May 1985, J.E. Wappes (JEWC, 1); Duarte Prov., Reserva Loma Quita Espuela, Canelo, 13.2 km NNE San Francisco de Macorís, 19°24'46"N, 70°09'52"W, 515 m, 6 April 2004, C. Young, R. Davidson, J. Rawlins, edge of wet broadleaf forest, UV light, sample 11213 (CMNH, 1); Hato Mayor Prov., Parque Nacional Los Haitises, 6 km SW Sabana de la Mar, 19°03.494'N, 69°27.302'W, 10-20 m, beating, 6 July 2005, C.J. Micheli (JCPC, 1); 3 km S Sabana de la Mar, 21 m, 19°01.800'N, 69°29.092'W, 3 August 1999, at night, M.A. Ivie and K.A. Guerrero (WIBF, 2); La Altagracia Prov., Punta Cana, near Ecological Reserve, 0-5 m, 18°30.477'N, 68°22.499'W, 12-14 July 2005, attracted to lights, S.W. Lingafelter (USNM, 1); same data but 2-7 July, N.E. Woodley (USNM, 1); same data but 1 July 2006, attracted to lights, N.E. Woodley (USNM, 1); Parque Nacional del Este, Boca de Yuma, 18°21.508'N, 68°36.956'W, 20 m, day coll., 19 July 2004, C.J. Micheli (JCPC, 1); El Verón, road to Hoyo Azul, 25-40 m, day coll., 18°33.805'N, 68°26.543'W, 1 July 2005, C.J. Micheli (JCPC, 2); Punta Cana, near Ecological Reserve, 0-5 m, beating, SpecID 7454, E.H. Nearns and S.W. Lingafelter, 14 June 2005 (ENPC, 1); El Verón, road to Hoyo Azul, 25-40 m, beating, SpecID 6770, E.H. Nearns & N.E. Woodley, 30 June 2005 (ENPC,

1); Boca de Yuma, entrance Parque Nacional del Este, 6 August 1999, 18°21.904'N, 68°37.094'W, 12 m, beating vegetation, M.A. Ivie (WIBF, 1); Nisibon, Finca Papagayo, 4-7 April 2000, blacklight trap, 150 ft, R.E. Woodruff, T.J. Henry (FSCA, 1); **La Vega Prov**., Jarabacoa, La Joya, 537 m, beating, Rancho Baiguate, SpecID 7053, E.H. Nearns, 10 June 2005 (ENPC, 1); same data but SpecID 7052 (ENPC, 1); **Pedernales Prov**., Parque Nacional Jaragua, 3 km S of Los Tres Charcos, 17°47.51'N, 71°27.78'W, beating, S.W. Lingafelter (USNM, 1); **Peravia Prov**., Arroyo Canas, 650 m, 7 August 1980, A. Norrbom (MNRJ, 1); [province unknown], Santo Domingo, September 1966 (MNRJ, 1); **Puerto Plata Prov**., 14 km W Puerto Plata, 11 May 1985, J.E. Wappes (JEWC, 1); **San Cristóbal Prov**., Borbón, Cuevas Pomier, tropical deciduous forest, flight intercept trap, 28 July–5 August 1995, S. and J. Peck, SpecID 95-47 (CMNC, 1); same data but 13-28 July 1995, SpecID 95-22 (CMNC, 1); **San Pedro de Macorís Prov**., near Juan Dolio, 13 May 1985, J.E. Wappes (JEWC, 1).

## Leptostylopsis argentatus (Jacquelin du Val, 1857)

Map 2, Figs 4, 17, 32, 47, 62, 77, 91, 106

## Leptostylopsis argentatus; Dillon, 1956:145

**Diagnosis**. The small, isolated yellowish maculae on the elytra combined with the transverse postmedial black macula, and longitudinal median black pronotal line distinguish this species. In older, worn specimens, much of the pubescence may be rubbed from the elytra, making identification difficult, but there usually are a few small yellow spots still evident.

Redescription. Length: 7.0-12.0 mm; width: 3.0-5.0 mm.

Head: Covered throughout in dense, appressed, mottled white or off-white pubescence. Mostly obscured narrow, median-frontal line extending from fronto-clypeal margin to between lower eye lobes, continuing in most specimens as median-vertex line between upper eye lobes to occiput. Short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, mottled white and tawny pubescence; annulate at apex and base of most antennomeres. Terminal antennomere uniformly dark, without annulae, similar in color to apex of penultimate antennomere. Antennae longer than body in males, extending by 4-5 antennomeres beyond elytral apices. Antennae shorter in females, extending by 3-4 antennomeres beyond elytral apices. In both sexes, last antennomere subequal to penultimate. Antennal scape extending to posterior 1/4 of pronotum. Eye: lower eye lobe about 3/4 height of gena below it; over 2 × height of upper eye lobe; lobes connected by 6-8 rows of ommatidia. Upper eye lobes separated by slightly more than greatest width of scape. Mouthparts: frontoclypeal margin with fringe of short pubescence extending beyond base of labrum; clypeus without pubescence except at extreme base. Labrum coated with dense, mostly appressed, white or off-white pubescence with 8-10 long, suberect, translucent setae.



**Maps I-2.** Locality records for *Leptostylopsis annulipes* (Fisher) and *Leptostylopsis argentatus* (Jacquelin du Val) in Hispaniola.

*Thorax*: Pronotum with weakly to moderately protuberant, broadly rounded lateral tubercles with greatest projection slightly behind middle; with moderately raised dorsal tubercles with following arrangement: large oval, partially denuded prominence at middle, surrounded by four smaller prominences (two anterolateral and two posterolateral). Pronotum with partially glabrous, slight anteromedial elevation at margin. Pronotum mostly covered in appressed, white or off-white pubescence; incompletely glabrous longitudinal medial line present from middle tubercle to base of scutellum, continuing between anterolateral tubercles to pronotal margin at middle. Short, glabrous, black line on outside edge of anterolateral calli, angling to anterior pronotal margin. Pronotum with moderate constrictions before anterior and posterior margins, each lined with row of separate, large punctures (the largest along posterior margin). Additional smaller punctures scattered over pronotal disk, around dorsal tubercles, some obscured by pubescence. Prosternum smooth, impunctate, covered with uni-

form, appressed, white or tawny pubescence. Prosternal process broad between procoxae, about as wide as procoxa. Scutellum moderately to densely white pubescent (occasionally with yellow pubescence at apex); broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, white pubescence, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae very broad, separating mesocoxae by about 1.5 × width of mesocoxa. Metasternum covered with appressed, white pubescence, becoming mottled at sides and on the lateral thoracic sclerites. *Elytra*: covered with combination of mostly appressed, white pubescence with small raised spots of yellow setae scattered throughout and a few spots of black setae along suture at middle 1/3 and in a short, transverse macula postmedially, starting at suture and extending laterad to about 1/4 to 1/3 of elytral width. Elytra with rows of small tubercles generally following along costae. Tubercles at base of elytra most prominent. Humeri projecting slightly. Epipleuron subvertical, not well demarcated dorsally. Elytral apex subtruncate, with outer apical angle more produced than sutural angle. Legs: mostly uniformly pubescent with appressed, white hairs, somewhat mottled; apex and basal 1/3 of tibiae annulate due to less dense pubescence exposing darker integument. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to about abdominal apex. Tarsi generally covered with short, appressed, pale pubescence, with exception of mostly glabrous, dark fifth tarsomere.

*Abdomen*: Ventrites covered with appressed, white, pubescence, becoming splotchy at sides. Fifth ventrite about  $2.5 \times$  broader than long in females, narrowed and extended at middle, with glabrous midline at base, extending toward apex for 1/3 or more of overall length.

**Distribution**. This widespread species is known from southeast Florida, Cuba, Puerto Rico, Bahamas, southeastern Haiti, and throughout the Dominican Republic (Map 2). Haiti and the Dominican Republic may represent new country records as this species was not recorded from either country by Perez-Gelabert (2008) or Monné and Bezark (2009) (but was recorded from "Hispaniola" in Monné 2005).

**Remarks**. This species has been collected from May through August at lights, from dead logs, and by beating dead vegetation at night.

Hispaniolan material examined: DOMINICAN REPUBLIC: Azua Prov., Sierra Martín García (FSCA, 1); Barahona Prov., Paraiso, Río Nazaito, blacklighting/ log picking, 18°00'N, 71°06'W, 7 July 2004, S.W. Lingafelter (USNM, 1); Filipinas, 18°07.339'N, 71°07.152'W, 625 m, blacklight/night beating, 7 July 2004, S.W. Lingafelter (USNM, 1); 11 km S Barahona, 15-17 May 1985, J.E. Wappes (JEWC, 4); 4.5 km S Barahona, 4 km W Hwy 2, 17 May 1992, M.C. Thomas (FSCA, 1); La Altagracia Prov., El Verón, road to Hoyo Azul, 25-40 m, day coll., 18°33.610'N, 68°26.881'W, 22 July 2004, dead logs, S.W. Lingafelter (USNM, 13); same but 7 July 2006 (USNM, 6); Punta Cana, near Ecological Reserve, 0-5 m, 18°30.477'N, 68°22.499'W, 7 July 2005, attracted to lights, S.W. Lingafelter (USNM, 3); same but 2-7 July 2005 (USNM, 3); same but 14 June 2005, N.E. Woodley (USNM, 2); same but 26 June–7 July 2005, C.J. Micheli (JCPC, 6); Parque Nacional del Este, Guaraguao, 18°19.568'N, 68°48.500'W, 0-5 m, blacklight, 20 July 2004, D. Perez (JCPC, 3); La Vega Prov., near El Río, 1000 m, 19°05.09'N, 70°35.95'W, E.H. Nearns, 22 June 2005 (ENPC, 1); 9 km NE Jarabacoa, 2000 ft, E.F. Giesbert (EFGC, 2); Pedernales Prov., Parque Nacional Jaragua, trail to Carlitos, ca. 6 km S of Highway 44, 106 m, 17°48.932N, 71°28.271'W, 16 June 2006, N.E. Woodley (USNM, 1); 17 km N Cabo Rojo (FSCA, 1); Sánchez Ramirez Prov., Casa 10, Mina de Oro Pueblo Viejo, 181 m, August 1-3, 2003, R.H. Bastardo (USNM, 2); San Pedro Prov., nr. Juan Dolio, 4 May 1985, J. E. Wappes (JEWC, 4); HAITI: Port-au-Prince (FSCA, 1).

# *Leptostylopsis cristatus* (Fisher, 1925) Map 3, Figs 8, 21, 36, 51, 66, 81, 95, 110

Leptostylopsis cristatus; Gilmour, 1963:58

**Diagnosis**. The very pronounced crest on the elytral base distinguishes this species from all others in Hispaniola. Additionally, the setae on the tubercles are partially erect, appearing as small tufts. The arrangement of black maculae on the pronotum is also distinctive (although somewhat similar to *L. argentatus*) as is the combination of very highly elevated anterolateral pronotal tubercles, dark integument, and very elongate ventrite 5 in females.

Redescription. Length: 9.0-12.0 mm; width: 4.0-5.0 mm.

Head: Covered throughout in dense, appressed, yellowish or ochraceous pubescence except for distinct narrow, median line extending from frontoclypeal margin to occiput and short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, off-white pubescence; annulate at apex and base of most antennomeres. Last antennomere slightly paler at middle, without distinct annulae; mostly of similar coloration to apex of penultimate antennomere. Antennae longer than body in males, typically extending beyond apices by 4-5 antennomeres. In females, antennae shorter, extending beyond elytral apices by about 3-4 antennomeres. In both sexes, last antennomere slightly shorter than penultimate. Antennal scape extending to posterior 1/3 of pronotum. Eye: lower eye lobe about as tall as gena below it; over 2 × height of upper eye lobe; lobes connected by 5-7 rows of ommatidia in most specimens. Upper eye lobes separated by slightly more than greatest width of scape. Mouthparts: frontoclypeal margin with fringe of short pubescence, mostly not extending to base of labrum; clypeus without pubescence except at extreme base. Labrum with dense, mostly appressed, off-white pubescence with 8-10 long, suberect, translucent setae.

*Thorax*: Pronotum with moderately to strongly protuberant, broadly rounded lateral tubercles with greatest projection slightly behind middle; with pronounced dorsal tubercles of following arrangement: large, partially denuded oval prominence at middle, surrounded by four smaller tubercles (two anterolateral which project more abruptly than others, and two less elevated posterolateral). Pronotum with moderate



Figures 16-22. Simplified drawings of major elytral pubescence features of Hispaniolan *Leptostylopsis*. 16 *Leptostylopsis annulipes* (Fisher) 17 *Leptostylopsis argentatus* (Jacquelin du Val) 18 *Leptostylopsis basifulvus* Lingafelter & Micheli 19 *Leptostylopsis caliginosus* Lingafelter & Micheli 20 *Leptostylopsis chlorescens* Lingafelter & Micheli 21 *Leptostylopsis cristatus* (Fisher) 22 *Leptostylopsis humerofulvus* Lingafelter & Micheli.

anteromedial elevation at margin; mostly covered in appressed, ochraceous pubescence on very dark brown integument, slight greenish hue; glabrous maculae arranged as follows: mostly complete longitudinal median line from anterior margin across middle callus to base of scutellum; longitudinal line extending from anterior margin to lateral edge of anterolateral tubercles, resuming at posterior margin of posterolateral tubercles to posterior margin. Prothorax with black maculae at base, opposite base of humerus. Pronotum with slight constriction before anterior and posterior margins, each (particularly posteriorly) lined with row of separate, large punctures. Additional smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, white or tawny pubescence. Prosternal process broad between procoxae, about 0.7 × width of procoxa. Scutellum moderately to densely pale ochraceous pubescent (with slight green hue); broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, off-white or pale ochraceous pubescence, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae very broad, widely separating mesocoxae by about 1.5 × width of mesocoxa. Metasternum covered with appressed, off-white or pale ochraceous pubescence, becoming mottled at sides and on the lateral thoracic sclerites. *Elytra*: covered with combination of mostly appressed, off-white to pale ochraceous and black pubescence with slight green hue probably due to dark brown integument partially visible beneath; rows of tufted tubercles generally along costae and suture. Tubercles at base of elytra prominent, forming pronounced crests with tufts of semierect black and pale ochraceous setae. Humeri moderately projecting, without black macula at base. Epipleuron with vague green hue. Elytral apex subtruncate, with outer apical angle and sutural angle equally produced. Legs: covered with mostly uniform, appressed, white, off-white, and pale ochraceous pubescence, somewhat mottled; apex and middle of tibiae somewhat annulate due to less dense pubescence exposing darker integument. Middle and hind tibiae slightly longer than femora; hind legs much longer than forelegs; metafemora extending to base of ventrite 5 in females; to just before abdominal apex in males. Tarsi with less dense pubescence than most of legs; appearing darker.

*Abdomen*: Ventrites covered with appressed, off-white to pale ochraceous pubescence, becoming splotchy at sides. Fifth ventrite only  $1.3 \times$  as broad as long in females, narrowed and strongly extended at middle, with or without partial glabrous midline at base.

**Distribution**. Endemic to Hispaniola, this uncommon species is recorded from many localities in the Dominican Republic (Map 3).

**Remarks**. This species has been collected under bark, at ultraviolet light, and by general day collecting from April through August.

**Type material examined: Holotype: Dominican Republic**: San Lorenzo, 2 July 1915, F.W. Watson (AMNH).

**Other material examined: DOMINICAN REPUBLIC: Duarte Prov.**, Reserva Loma Quita Espuela, Canelo, 13.2 km NNE San Francisco de Macorís, 19°24'46"N, 70°09'52"W, 515 m, 6 April 2004, C. Young, R. Davidson, J. Rawlins, burned patch in broadleaf forest, UV light, sample 11393 (CMNH, 1); La Altagracia Prov., El Verón, road to Hoyo Azul, 25-40 m, day coll., 18°33.610'N, 68°26.881'W, 22 July 2004, blacklight, S.W. Lingafelter (USNM, 1); La Vega Prov., Río Baiguate, Jarabacoa, 520 m, 19°06.9'N, 70°37.0'W, 19-21 May 1995, O. Flint (USNM, 1); 9 km NE Jarabacoa, 2000 ft, May 1985, E.F. Giesbert (EFGC, 1); Pedernales Prov., Parque Nacional de Sierra de Baoruco, Las Abejas, 1240 m, 18°09.023'N, 71°37.387'W, 9 August 1999, M.A. Ivie (WIBF, 1); 24 km N Cabo Rojo, 610m, 21 August 1988, wet forest, M.A. Ivie, Philips and Johnson (WIBF, 2); same data but 20 August 1988, under bark (WIBF, 2).



**Maps 3-4.** Locality records for *Leptostylopsis cristatus* (Fisher) and *Leptostylopsis milleri* (Fisher) in Hispaniola.

# Leptostylopsis milleri (Fisher, 1932)

Map 4, Figs 10, 23, 38, 53, 66, 81, 95, 110

# Leptostylopsis milleri; Gilmour, 1963:59

**Diagnosis**. This species is recognized most easily by the pattern of ochraceous, black, and iridescent green pubescence on the pronotum and elytra. Superficially it is similar to *L. viridicomus* and *L. chlorescens*, but those species have more extensive green iridescence. *Leptostylopsis milleri* also has iridescent green setae between the antennal tubercles, generally more developed than in *L. viridicomus*. It is further distinguished by its uniformly dark tarsi and by the setae atop the elytral tubercles that tend to be semierect (as in *L. viridicomus*) and not appressed as in *L. annulipes*. It further differs from *L. annulipes* in lacking distinct ochraceous pubescence patches on the pronotum

and elytral base, and differs from *L. viridicomus* in having a subhumeral black macula which is absent in *L. viridicomus*.

Redescription. Length: 7-11 mm; width: 3.0-4.0 mm.

Head: Covered throughout in dense, appressed, mottled off-white to pale ochraceous pubescence. Most specimens with small patch of iridescent green pubescence at middle of head between antennal tubercles. Mostly obscured, narrow, median-frontal line present, extending from fronto-clypeal margin to between lower eye lobes (variably developed); short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible, to ventral edge of lower eye lobe in most specimens. Antenna: covered with dense, appressed, mottled off-white and pale ochraceous pubescence; annulate at apex and base of most antennomeres. Last antennomere uniformly dark, without annulae, of similar coloration to apex of penultimate antennomere. Antennae longer than body in males, extending beyond apices by about 4 antennomeres. In females, antennae shorter, but still extending beyond elytral apices by about 3 antennomeres. In both sexes, last antennomere slightly shorter than penultimate. Antennal scape extending to posterior 1/3 of pronotum. *Eye*: relatively small, lower eye lobe  $0.7 \times$  as tall as gena below it; less than  $2 \times$  height of upper eye lobe; lobes connected by 4-5 rows of ommatidia in most specimens. Upper eye lobes separated by little less than greatest width of scape. Mouthparts: frontoclypeal margin with inconspicuous fringe of short pubescence extending about halfway to base of labrum; clypeus without pubescence except at extreme base. Labrum with inconspicuous, appressed, off-white or pale ochraceous pubescence with 8-10 long, suberect, translucent setae.

Thorax: Pronotum with moderately protuberant, broadly rounded lateral tubercles with greatest projection slightly behind middle; with moderately raised dorsal tubercles of following arrangement: oval prominence at middle, partially denuded of pubescence, surrounded by four tubercles (two anterolateral and two smaller posterolateral). Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in appressed, ochraceous and iridescent green pubescence. Black pubescence forming small maculae at middle, opposite base of scutellum, at posterior margin between middle and posterolateral calli, at anterior margin to lateral edge of anterolateral tubercles, and at sides, opposite humeral base. Pronotum with slight constriction before anterior and posterior margins, each (particularly posteriorly) lined with row of separate, large punctures and often with concentration of iridescent, green setae. Additional smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, white or tawny pubescence. Prosternal process broad between procoxae, about 2/3 width of procoxa. Scutellum moderately to densely ochraceous and iridescent green pubescent; broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed pubescence, but less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae moderately broad, about as wide as mesocoxa. Metasternum covered with appressed, off-white pubescence (sometimes with slight iridescent green hue), becoming mottled at sides and on lateral thoracic



Figures 23-28. Simplified drawings of major elytral pubescence features of Hispaniolan Leptostylopsis.
23 Leptostylopsis milleri (Fisher) 24 Leptostylopsis perfasciatus Lingafelter & Micheli 25 Leptostylopsis poeyi
(Fisher) 26 Leptostylopsis puntacanaensis Lingafelter & Micheli 27 Leptostylopsis thomasi Lingafelter & Micheli 28 Leptostylopsis viridicomus (Fisher).

sclerites. *Elytra*: covered with combination of mostly appressed, off-white, ochraceous, black, and iridescent green pubescence. Ochraceous pubescence forming two vague, angled maculae near suture at middle and posterior 1/4. Posterior pale macula bordered anteriorly by angled black macula continuing partially toward median pale macula and laterad toward outer elytral margin. Variably developed small, black maculae also present posterior to basal elytral crests. Rows of small, setose tubercles generally following costae. Tubercles at base of elytra most prominent, forming weak crests. Humeri slightly projecting, marked at anterior margin with black macula that corresponds to small black macula on prothorax. Epipleuron with iridescent green pubescence and variably developed elongate, black macula. Elytral apex subtruncate, with outer apical angle more produced posteriorly than sutural angle. *Legs*: mostly pubescent with mottled, appressed, off-white and pale ochraceous pubescence; apex and basal 1/3 of tibiae vaguely annulate due to less dense and more translucent pubescence exposing darker integument. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora of moderate length, extending to about base or middle of ventrite 5. Tarsi generally coated with short, appressed pubescence of similar color to apex of tibiae, appearing very dark.

*Abdomen*: Ventrites covered with appressed, off-white to pale ochraceous pubescence, becoming splotchy at sides. Fifth ventrite about  $2 \times as$  broad as long in females, narrowed and extended at middle, with glabrous midline at base, typically extending toward apex for 1/3 or more of overall length.

**Distribution**. Endemic to Hispaniola, this species occurs throughout the Dominican Republic; it is most abundant in the Barahona Peninsula region (Map 4).

**Remarks**. This species has been collected from May through July at tree falls, at mercury vapor and blacklights, by beating during day and night, and by flight intercept traps.

**Type material examined: Holotype: DOMINICAN REPUBLIC:** Río San Juan, March 1928, G.S. Miller, Jr. (USNM).

Other material examined: DOMINICAN REPUBLIC: Barahona Prov., 3300 ft, near Filipinas, Larimar Mine, 3-11 July 1993, blacklight trap, R.E. Woodruff (RWPC, 1); 4.5 km S Barahona, 5 km W Hwy 2, 17 May 1992, M.C. Thomas (FSCA, 1); road west of La Ciénaga, 18°03.830'N, 71°07.458'W, 425 m, 14 July 2006, S.W. Lingafelter, beating (USNM, 2); El Cachote, 18°03.295'N, 71°09.778'W, 970 m, 14 July 2006, S.W. Lingafelter, beating (USNM, 1); road to Filipinas, 5-6 May 1985, J.E. Wappes (JEWC, 2); La Altagracia Prov., El Verón, road to Hoyo Azul, 25-40 m, day coll., 18°33.610'N, 68°26.881'W, 22 July 2004, day collecting, C.J. Micheli (JCPC, 1); La Vega Prov., SE of Jarabacoa, Salto de Jimenoa, 550-650 m, July 26, 1987, A.L. Norrbom (USNM, 1); 9 km NE Jarabacoa, 2000 ft, May 8-12, 1985, E.F. Giesbert (EFGC, 2); Pedernales Prov., Parque Nacional Sierra de Baoruco, Las Abejas, 1150 m, 18°09.011'N, 71°37.342'W, ex. dead log w/ white fungus, 11 July 2004, S.W. Lingafelter (USNM, 4); same data but blacklight/ night beating (USNM, 8); same data but day collecting, 18 June 2005 (USNM, 1); same data but night collecting, 17 July 2006 (USNM, 2); 25 km N of Cabo Rojo, 18°06.769'N, 71°37.245'W, 679 m, 15-16 July, 2006, S.W. Lingafelter, beating (USNM, 2); same data but 10 July 2004, day collecting (USNM, 1); 25 km N Cabo Rojo, 700 m, 12 July 1996, M.C. Thomas, mercury vapor/ultraviolet light (FSCA, 1); 8 km NE Los Arroyos, 18°16'N, 71°44'W, 1940 m, 14 July 1990, J. Rawlins, C.W. Young, S.A. Thompson (CMNH, 1); 23.5 km N Cabo Rojo, 18°06'N, 71°38'W, 540 m, 13-19 July 1990, L. Masner, J. Rawlins, C. Young, deciduous forest, intercept trap (CMNH, 1); 26 km N Cabo Rojo, 18°06'N, 71°38'W, 730 m, 13-25 July 1990, L. Masner, J. Rawlins, C. Young, wet deciduous forest, sweep sample (CMNH, 1); Parque Nacional Sierra de Baoruco, Las Abejas, 1150 m, 18°09.011'N,

71°37.342'W, ex. treefall, 18 June 2005, E.H. Nearns and S.W. Lingafelter, SpecID 6904, 6905 (ENPC, 2); 1 km N of Banano, 290 m, 18°09.258'N, 71°45.384'W, 12 July 2004, day beating, C.J. Micheli (JCPC, 1); **San Pedro de Macorís Prov.**, 12 km W San Pedro de Macorís, 1700 ft, 5-19 May 1985, E.F. Giesbert (EFGC, 2); near Juan Dolio, 13 and 18 May 1985, J.E. Wappes (JEWC, 1).

## Leptostylopsis poeyi (Fisher, 1925), comb. n.

Map 5, Figs 12, 25, 40, 55, 70, 85, 99, 114

## Leptostylus poeyi Fisher, 1925:4

**Diagnosis**. The unusually short antennae, particularly in females, with antennomeres 6-11 very short and successively decreasing in length, combined with the distinctive pronotal and elytral maculae comprised of a combination of off-white, pale ochraceous, and black pubescence readily distinguishes this species from its congeners. The rather acute lateral pronotal tubercles, narrow intercoxal processes between the procoxae and mesocoxae, very dark tarsi, and short ventrite 5 in females also are distinctive.

Redescription. Length: 6.0-9.0 mm; width: 2.7-4.0 mm.

Head: Covered in dense, appressed, off-white and tawny pubescence. Mostly obscured narrow, median-frontal line extending from fronto-clypeal margin to between lower eye lobes, continuing in some specimens on vertex; short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, mottled off-white and tawny pubescence; dark annulate at apex and base of most antennomeres. Last antennomere uniformly dark, without annulae, of similar coloration to apex of penultimate antennomere. Antennae relatively short, longer than body in males, typically extending beyond elytral apices by 3 antennomeres. In females, antennae shorter, extending beyond elytral apices by about 2-3 antennomeres. In both sexes, last antennomere shorter than penultimate. Antennomeres 6-11 very short in females, successively decreasing in length. Antennal scape cylindrical, slightly more expanded apically; relatively short, extending to about middle of pronotum. Eve: lower eye lobe slightly shorter than gena below it; about 2 × height of upper eye lobe; lobes connected by 3-5 rows of ommatidia in most specimens. Upper eye lobes separated by little less than greatest width of scape. *Mouthparts*: frontoclypeal margin with fringe of short, ochraceous pubescence extending to about base of labrum; clypeus without pubescence except at extreme base. Labrum coated with dense, mostly appressed, pale ochraceous pubescence with 8-10 longer, suberect, translucent setae.

*Thorax*: Pronotum with moderately acute and protuberant lateral tubercles with greatest projection at middle; with weakly raised dorsal tubercles of following arrangement: oval tubercle at middle, partially denuded of pubescence, surrounded by four tubercles (two anterolateral and two posterolateral). Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in appressed, ochra-



Figures 29-43. Anterior view of head showing fronto-medial and genal sutures, pubescence patterns on head and mouthparts, and size of lower eye lobes (all male specimens). 29 Leptostylus transversus Gyllenhal 30 Leptostylopsis terraecolor Horn 31 Leptostylopsis annulipes (Fisher) 32 Leptostylopsis argentatus (Jacquelin du Val) 33 Leptostylopsis basifulvus Lingafelter & Micheli 34 Leptostylopsis caliginosus Lingafelter & Micheli 35 Leptostylopsis chlorescens Lingafelter & Micheli 36 Leptostylopsis cristatus (Fisher) 37 Leptostylopsis humerofulvus Lingafelter & Micheli 38 Leptostylopsis milleri (Fisher) 39 Leptostylopsis perfasciatus Lingafelter & Micheli 40 Leptostylopsis poeyi (Fisher) 41 Leptostylopsis puntacanaensis Lingafelter & Micheli 42 Leptostylopsis thomasi Lingafelter & Micheli 43 Leptostylopsis viridicomus (Fisher).

ceous pubescence with black pubescence forming small maculae at posterior margin (behind posterolateral tubercles), at posterior margin at middle opposite scutellum base, at posterior margin adjacent to base of elytral humeri, at middle of anterior margin, and along inside and anterior margins of anterolateral tubercles. Pronotum with slight constriction before anterior and strong constriction before posterior margins, constrictions (particularly posteriorly) each lined with row of separate, large punctures. Additional smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, white or tawny pubescence. Prosternal process relatively narrow between procoxae, little over 1/2 width of procoxa in most specimens. Scutellum moderately to densely ochraceous pubescent (darker than pronotum and adjacent elytra); broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, pale ochraceous pubescence, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae relatively narrow, separating mesocoxae by little less than width of mesocoxa. Metasternum with appressed, pale ochraceous pubescence, mottled and not obscuring integument. Elytra: covered with combination of mostly appressed, off-white, pale ochraceous, and black pubescence forming variable patterns, generally with broad pale fascia at middle 1/3 angling posteriorly to outer elytral edge, bordered posteriorly with thin black margin. U-shaped band of ochraceous pubescence bordered anteriorly by black macula lies behind pale fascia, at apical 1/3 of elytron. Basal 2/3 of elytra with sparse, scattered tubercles of black setae forming vague rows along costae and suture. Tubercles at base of elytra most prominent, forming weak crests. Humeri projecting slightly, marked at anterior margin with black macula corresponding to small black macula on prothorax. Epipleuron with dark setae at basal 2/3 and pale ochraceous or off-white setae at apical 1/3. Elytral apex narrowly subtruncate. Legs: mostly uniformly pubescent with combination of appressed, off-white and pale ochraceous setae, somewhat mottled; apex of tibiae distinctly annulate due to less dense pubescence exposing darker integument, basal 1/3 with incomplete dark annulae in most specimens. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to about abdominal apex. Tarsi very dark, similar in color to apex of tibiae.

*Abdomen*: Ventrites partially covered with appressed, off-white or tawny pubescence. Fifth ventrite of females over  $2.6 \times$  broader than long; with glabrous midline at base, extending toward apex for 1/3 or more of overall length.

**Distribution**. Endemic to Hispaniola, this species is known from southeastern Haiti and throughout the Dominican Republic (Map 5).

**Remarks**. This species has been collected from March through October in lowland and mid-elevation forests by beating and general collecting during the day.

**Type material examined: Holotype: DOMINICAN REPUBLIC:** San Francisco Mountains, September 1905, August Busck (USNM). **Paratype: HAITI**: Port-au-Prince (USNM).

Other type material (not examined): Two paratypes: DOMINICAN REPUB-LIC: La Romana Prov., Higüeral (AMNH). **Other material examined: DOMINICAN REPUBLIC: Azua Prov.**, 8 km NE Padre Las Casas, Río Las Cuevas, 580 m, 18°46'N, 70°53'W, 3-4 October 1991, C. Young, S. Thompson, R. Davidson, J. Rawlins, riparian growth in arid thornscrub (CMNH, 1); **Barahona Prov.**, road west of La Ciénaga, 18°03.830'N, 71°07.458'W, 425 m, 14 July 2006, S.W. Lingafelter, beating (USNM, 2); Punta Prieta, SE Barahona, 13 July 1996, M.C. Thomas (FSCA, 1); **Hato Mayor Prov.**, Parque Los Haitises, 3 km W Cueva de Arena, 19°04'N, 69°29'W, 20 m, beating, 7-9 July 1992, R. Davidson, J. Rawlins, S. Thompson, C. Young, mesic lowland forest (CMNH, 1); **La Altagracia Prov.**, Parque Nacional del Este, Boca de Yuma, 18°21.508'N, 68°36.956'W, 20 m, day coll., 19 July 2004, S.W. Lingafelter (USNM, 1); El Verón, road to Hoyo Azul, 25-40 m, day coll., 18°33.610'N, 68°26.881'W, 22 July 2004, day collecting, S.W. Lingafelter (USNM, 5); same data but 2-7 July 2006 (USNM, 2); Punta Cana, near Ecological Reserve, 0-5 m, 18°30.477'N, 68°22.499'W, 2-5 July 2006, beating,



**Maps 5-6.** Locality records for *Leptostylopsis poeyi* (Fisher) and *Leptostylopsis viridicomus* (Fisher) in Hispaniola.

S.W. Lingafelter (USNM, 3); same data but 21 July (USNM, 1); same data but 22 July, N.E. Woodley (USNM, 1); Parque Nacional del Este, Guaraguao, 18°19.568'N, 68°48.500'W, 0-5 m, blacklight, 21 July 2004, C.J. Micheli (JCPC, 1); El Verón, road to Hoyo Azul, 25-40 m, day coll., 18°33.805'N, 68°26.543'W, 22 July 2004, C.J. Micheli (JCPC, 2); same data but 1 July 2005 (JCPC, 1); Punta Cana, near Ecological Reserve, 0-5 m, 18°30.477'N, 68°22.499'W, UV lights, 12 and 29 June 2005, E.H. Nearns & S.W. Lingafelter, SpecID 6819, 7478 (ENPC, 2); La Vega Prov., vicinity of Manabao, 15 July 1996, M.C. Thomas (FSCA, 1); Puerto Plata Prov., 14 km W Puerto Plata, 11 May 1985, J. E. Wappes (JEWC, 1); San Pedro de Macorís Prov., 12 km W San Pedro de Macorís, 1700 ft, 5-19 May, E.F. Giesbert (EFGC, 1); HAITI: Mon Repos, Nord-Est, 8-9 March 1925, G.S. Miller (USNM, 1).

## Leptostylopsis viridicomus (Fisher, 1942), comb. n.

Map 6, Figs 15, 28, 43, 58, 73, 87, 102, 117

Leptostylus viridicomus Fisher, 1942:29

**Diagnosis**. This species is similar to *L. milleri* and *L. chlorescens* of Hispaniola due to the abundance of iridescent green pubescence. *Leptostylopsis viridicomus* is distinguished from *L. chlorescens* by the presence of a lateral black macula on the prothorax adjacent to the elytral humeral base. *Leptostylopsis viridicomus* lacks the subhumeral black macula on the elytra present in *L. milleri*.

Redescription. Length: 8.0-13.0 mm; width: 3.5-4.5 mm.

Head: Covered in dense, appressed, mottled, vaguely green and pale ochraceous pubescence (with slight iridescent green sheen between antennal tubercles in some specimens). Narrow median-frontal line extending from frontoclypeal margin between antennal tubercles and on vertex to at least between upper eye lobes, sometimes further toward occiput. Short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, mottled off-white and translucent pubescence; annulate at apex and base of most antennomeres. Last antennomere uniformly dark, without annulae, similar in color to apex of penultimate antennomere. Antennae longer than body in males, typically extending beyond apices by 4-5 antennomeres. In females, antennae shorter, extending beyond elytral apices by about 3-4 antennomeres. In both sexes, last antennomere shorter than penultimate. Antennal scape extending to posterior 1/3 or 1/4 of pronotum. Eye: lower eye lobe about 1.2 × taller than gena below it; over 2 × height of upper eye lobe; lobes connected by 5-7 rows of ommatidia in most specimens. Upper eye lobes separated by little more than greatest width of scape. *Mouthparts*: frontoclypeal margin with fringe of pubescence extending about 1/2 distance to base of labrum; clypeus without pubescence except at extreme base. Labrum with mostly appressed, off-white pubescence with 8-10 long, suberect, translucent setae.



Figures 44-58. Oblique lateral view of pronotum showing anterolateral, posterolateral, median, and lateral tubercles. 44 Leptostylus transversus Gyllenhal 45 Leptostylopsis terraecolor Horn 46 Leptostylopsis annulipes (Fisher) 47 Leptostylopsis argentatus (Jacquelin du Val) 48 Leptostylopsis basifulvus Lingafelter & Micheli 49 Leptostylopsis caliginosus Lingafelter & Micheli 50 Leptostylopsis chlorescens Lingafelter & Micheli 51 Leptostylopsis cristatus (Fisher) 52 Leptostylopsis humerofulvus Lingafelter & Micheli 53 Leptostylopsis perfaciatus Lingafelter & Micheli 55 Leptostylopsis poeyi (Fisher) 56 Leptostylopsis puntacanaensis Lingafelter & Micheli 57 Leptostylopsis thomasi Lingafelter & Micheli 58 Leptostylopsis puntacanaensis Lingafelter & Micheli 57 Leptostylopsis thomasi Lingafelter & Micheli 58 Leptostylopsis poeyi (Fisher)

Thorax: Pronotum with protuberant, weakly acute or narrowly rounded lateral tubercles with greatest projection slightly behind middle; with pronounced, raised dorsal tubercles of following arrangement: oval tubercle at middle, partially denuded of pubescence, surrounded by four tubercles (two anterolateral, raised higher than all others, and two less elevated posterolateral). Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in appressed pubescence of several colors (off-white, iridescent green, black, and ochre). In some specimens, ochraceous pubescence forming two indistinct anterolateral patches. Small black maculae at anteromedial margin, extending from anterolateral edge of anterolateral tubercles to anterior margin of pronotum, extending from posterior edge of posterolateral tubercles to posterior pronotal margin, and at sides of prothorax, adjacent to humeral base. Pronotum with slight constriction before anterior and moderate constriction before posterior margins; constrictions (particularly posteriorly) lined with row of separate, large punctures. Additional smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, off-white or greenish pubescence. Prosternal process narrow between procoxae, about 1/2 width of procoxa. Scutellum with mottled off-white or greenish pubescence; rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, off-white or greenish pubescence, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae relatively narrow, separating mesocoxae by about width of mesocoxa. Metasternum covered with appressed, white, offwhite, to slightly pale green pubescence, becoming mottled at sides and on the lateral thoracic sclerites. Elytra: covered with combination of mostly appressed, white, off-white, ochraceous, black, and iridescent green pubescence. Elytral pubescence forming pattern as follows: translucent patch around basal crest giving appearance of vaguely delimited dark brown macula; anterior to this, extending to base of elytra in many specimens, a vaguely defined patch of ochraceous pubescence; narrow, transverse, angled, white macula bordered posteriorly by narrow black macula originating at suture, just behind middle; most of remainder of anterior 2/3 of elytra with iridescent green pubescence interrupted by small, dark pubescent tubercles; at apical 1/4 lies indistinct narrow, angled, transverse, black macula with patch of off-white or pale ochraceous pubescence behind. Rows of small tubercles generally along costae and suture. Tubercles at base of elytra most prominent, forming weak crests. Humeri projecting moderately, without black macula at base. Epipleuron with vague iridescent green pubescence and elongate dark macula, partially visible from above. Elytral apex subtruncate, with outer apical angle more produced posteriorly than sutural angle. Legs: mottled off-white, white, or pale green pubescent with mostly appressed setae; apex of tibiae annulate due to less dense and semi-translucent pubescence exposing darker integument. Incomplete annula at basal 1/3 of tibiae. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to base of ventrite 5. Tarsi generally coated at base of each tarsomere with short, appressed, off-white or pale green pubescence; apex of tarsomeres darker.

*Abdomen*: Ventrites covered with appressed, white, off-white, or pale green pubescence, becoming splotchy at sides. Fifth ventrite of females  $1.8 \times$  broader than long, narrowed and extended at middle, with a glabrous midline at base, extending toward apex for 1/3 or more of overall length.

**Distribution**. Endemic to Hispaniola, this species is known from southeastern Haiti and the Sierra Neiba and Cordillera Central regions of central and western Dominican Republic (Map 6).

**Remarks**. This species has been collected at high elevations in cloud forests and mixed pine forests, above 900 m, from May through October by beating, hand-collecting, canopy traps, and in Malaise traps.

**Type material examined: Holotype: DOMINICAN REPUBLIC:** Valle Nuevo, cloud forest, 6000 ft, August 1938, P.J. Darlington, Jr. (MCZC). **Paratype:** same data (USNM).

**Other type material (not examined):** One paratype: **HAITI**: Kenskoff (near Port-au-Prince), 4000-6000 ft, 2 September 1934, P.J. Darlington, Jr. (MCZC).

Other material examined: DOMINICAN REPUBLIC: Elías Piña Prov., 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. Nuñez, P. Acevedo, M. de la Cruz, montane forest with Podocarpus, canopy trap, sample 31192 (CMNH, 1); Sierra de Neiba at crest, 5.5 km NNW Angel Felix, 1800 m, 18°41'N, 71°47'W, 15 October 1991, R. Davidson, C. Young, S. Thompson, J. Rawlins, cloud forest (CMNH, 1); same data but 13-15 October [label incorrectly says "Independencia Prov."] (CMNH, 2); same data but 1-2 April 2004, 1825 m, sample 34243 (CMNH, 1); La Vega Prov., 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. Nuñez, P. Acevedo, evergreen cloud forest, east slope, hand collected, sample 21242 (CMNH, 1); same data but 4.1 km SW El Convento, 31 May 2003, montane forest with pines near pasture, sample 22182 (CMNH, 1); Parque National Armando Bermúdez, 1-3 km along trail W of La Ciénaga, 900-1100 m, beating, SpecID 7352, 7353, 7 June 2005, E.H. Nearns (ENPC, 2); same data but 6 June 2005, SpecID 7326 (USNM, 1); 3 km E Jima, 4100 ft, 7 May 1985, E.F. Giesbert (EFGC, 1); Monseñor Nouel Prov., Loma El Casabito, summit, 1390 m, 19°03'N, 70°31'W, 19-23 November 1992, J. Rawlins, M. Klingler, R. Davidson, S. Thompson, cloud forest (CMNH, 1); San Juán Prov., Sierra de Neiba, Sabana del Silencio, 10.1 km SSW El Cercado, 18°39'07"N, 71°33'26"W, 2017 m, 20 June 2003, J. Rawlins, C. Young, R. Davidson, C. Nuñez, P. Acevedo, M. de la Cruz, cloud forest with Danthonia, Juniper, Malaise trap, sample 33182 (CMNH, 1); HAITI: Dept. Sud-Ouest, Parc National La Visite, Morne La Visite, 2100 m, 12 May 1984, M.C. Thomas (FSCA, 2); same data but vicinity of park headquarters, 1880 m (FSCA, 2).

## New Species of Leptostylopsis from Hispaniola

# Leptostylopsis basifulvus Lingafelter & Micheli, sp. n.

urn:lsid:zoobank.org:act:4271CD5B-79EB-456D-B925-7EE58FD1CD74 Map 7, Figs 5, 18, 33, 48, 63, 78, 92, 107

**Diagnosis**. The narrow, angled white fasciae of pubescence near the scutellum are unique to this species and readily identify it. Other distinctive characters include the dense vestiture of golden hairs on the front of the head, indistinct patches of ochraceous pubescence at the base of the pronotum, and the pattern of pubescence on the elytra.

# Description. Length: 8.0-9.0 mm; width: 3.5-4.0 mm.

Head: Covered in fine vestiture of dense golden or pale brown appressed hairs, more coarsely pubescent with off-white to ochraceous hairs on genae and inner eye margins. Narrow median-frontal line mostly obscured; short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, mottled off-white and dark, semitranslucent pubescence; dark annulate at apex and base of most antennomeres. Last antennomere mostly dark (with paler pubescence at middle in some specimens), without distinct annulae; similar in color to apex of penultimate antennomere. Antennae longer than body in males, typically extending beyond apices by 4-5 antennomeres. In females, antennae shorter, extending beyond elytral apices by about 4 antennomeres. In both sexes, last antennomere shorter than penultimate. Antennal scape extending to posterior 1/3 or 1/4 of pronotum. *Eye*: lower eye lobe about as tall as gena below it; over 2 × height of upper eye lobe; lobes connected by 4-6 rows of ommatidia in most specimens. Upper eye lobes separated by little more than greatest width of scape. Mouthparts: frontoclypeal margin with fringe of short pubescence extending to about base of labrum (setae on lateral margins much longer); clypeus without pubescence except at extreme base. Labrum coated with dense, mostly appressed, off-white pubescence with 8-10 long, suberect, translucent setae.

*Thorax*: Pronotum with slightly protuberant, broadly rounded lateral tubercles with greatest projection just behind middle; dorsal tubercles of following arrangement: oval callus at middle, surrounded by four tubercles (two highly projecting anterolateral and two weakly elevated posterolateral). Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in dense, appressed, golden brown, ochraceous, and black pubescence. Ochraceous pubescence forming two indistinct posteromedial maculae coalesced at middle. Small black macula present in front of anterolateral tubercles, at middle adjacent to pronotal margin, bordering posterior ochraceous macula on lateral margin, and at sides, opposite humeral base. Pronotum with slight constriction before anterior and posterior margins, constrictions (particularly posteriorly) each lined with row of separate, large punctures. Smaller punctures scattered over pronotal disk, mostly obscured by dense pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, golden or tawny pubescence. Prosternal process somewhat

broad between procoxae, about 3/4 width of procoxa. Scutellum golden pubescent, broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, ochraceous or tawny pubescence, but less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae broad, separating mesocoxae by about 1.2 × width of mesocoxa. Metasternum covered with appressed, offwhite or ochraceous pubescence, becoming mottled at sides and on the lateral thoracic sclerites. *Elytra*: covered with combination of mostly appressed, golden, ochraceous, greenish, black, and white pubescence with following arrangement: small dark macula at suture, post-medially, bordered anteriorly by ochraceous macula, the outside edge of which has border of indistinct white pubescence (maculae sometimes extending laterally beyond middle of elytra); apical and basal 1/3 with small, narrow, ochraceous patch; narrow band of white pubescence at base of elytra on each side of scutellum; elsewhere, dense vestiture of golden and greenish pubescence. Rows of small setose



**Maps 7-8.** Locality records for *Leptostylopsis basifulvus* Lingafelter & Micheli and *Leptostylopsis caliginosus* Lingafelter & Micheli in Hispaniola.

tubercles generally following along costae and suture. Tubercles at base of elytra most prominent, forming weak crests. Setae atop crests and tubercles black, suberect, not appressed. Punctures on elytron pronounced (although partially obscured by pubescence). Humeri slightly projecting, usually without black macula at base corresponding to lateral black macula on prothorax (but small black macula or bare region on some specimens). Epipleuron with golden, partially translucent pubescence only partially obscuring rows of large, separate punctures. Elytral apex subtruncate, with outer apical angle more produced posteriorly than sutural angle. *Legs*: mostly uniformly pubescent with off-white or ochraceous setae, with indistinct annula of dense ochraceous pubescence at middle of tibiae. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to about abdominal apex. Tarsi generally coated with short, appressed, off-white pubescence at base, less dense and darker at apices.

*Abdomen*: Ventrites covered with appressed, off-white or ochraceous pubescence, becoming splotchy at sides. Fifth ventrite in females about 2.2 × broader than long, narrowed and extended at middle; apparently without glabrous midline at base.

**Distribution.** Endemic to Hispaniola, this species is known only from extreme western and eastern Dominican Republic, with no specimens known from the Cordillera Central (Map 7).

**Remarks**. This species has been collected June through August at lights and by beating vegetation at night.

**Etymology**. The name is a compound Latin noun referring to the tawny base of the pronotum.

**Type material: Holotype** (male): **DOMINICAN REPUBLIC: La Altagracia Prov.**, Punta Cana, near Ecological Reserve, 0-5 m, 18°30.477'N, 68°22.499'W, attracted to lights, 14 June 2005, N.E. Woodley (USNM); **Paratypes: DOMINICAN REPUBLIC: Independencia Prov.**, ESE Jimaní, La Florida, 18°24'N, 71°44'W, 20 m, at UV light, 14 April 1993, M.A. Ivie, D. Sikes, W. Lanier (WIBF, 1 female); 4 km S Los Pinos, Loma de Vientos, 18°35'N, 71°46'W, 455 m, 23 July 1992, R. Davidson, J. Rawlins, S. Thompson, C. Young, semiarid deciduous forest with pastures (CMNH, 1 female); **La Altagracia Prov.**, Nisibon, "Papagallo", 23 June 1998, R.E. Woodruff, blacklight (RWPC, 1 female); Boca de Yuma, entrance Parque Nacional del Este, 5 August 1999, 18°21.904'N, 68°37.087'W, beating at night, M.A. Ivie (WIBF, 1 male); same data as holotype (USNM, 1 female).

## Leptostylopsis caliginosus Lingafelter & Micheli, sp. n.

urn:lsid:zoobank.org:act:6056198B-BF29-4CD6-9AE3-6028EAC217A1 Map 8, Figs 6, 19, 34, 49, 64, 79, 93, 108

**Diagnosis**. This species is recognized by its very dark reddish-brown integument covered by reddish-brown setae. Additionally, there is a distinctive small, oval, black macula on the epipleuron above the metepisternum. Furthermore, most specimens have



Figures 59-73. Ventral view of thorax showing relative widths of pro- and mesocoxal processes relative to coxae, along with ventral pubescence patterns. 59 Leptostylus transversus Gyllenhal 60 Leptostylopsis terraecolor Horn 61 Leptostylopsis annulipes (Fisher) 62 Leptostylopsis argentatus (Jacquelin du Val) 63 Leptostylopsis basifulvus Lingafelter & Micheli 64 Leptostylopsis caliginosus Lingafelter & Micheli 65 Leptostylopsis cristatus (Fisher) 67 Leptostylopsis humerofulvus Lingafelter & Micheli 68 Leptostylopsis milleri (Fisher) 69 Leptostylopsis perfasciatus Lingafelter & Micheli 70 Leptostylopsis poeyi (Fisher) 71 Leptostylopsis puntacanaensis Lingafelter & Micheli 72 Leptostylopsis tornasi Lingafelter & Micheli 73 Leptostylopsis viridicomus (Fisher).

two transverse, black, postmedial elytral maculae, the anterior of which is bordered by white or off-white pubescence.

Description. Length: 7.5-12.0 mm; width: 3.0-4.5 mm.

Head: Integument very dark reddish-brown, covered throughout in dense, reddishbrown to tawny pubescence. Mostly obscured narrow, median-frontal line present, extending from fronto-clypeal margin, between antennal tubercles, to occiput (occasionally mostly visible). Short, glabrous frontal-genal line present, extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, mottled white and dark-brown pubescence; dark annulate at apex and base of most antennomeres. Last antennomere uniformly dark, without annulae, similar in color to apex of penultimate antennomere. Antennae longer than body in males, typically extending beyond elytral apices by 3-4 antennomeres. In females, antennae shorter, extending beyond elytral apices by about 2 antennomeres. In both sexes, last antennomere slightly shorter than penultimate. Antennal scape extending to posterior 1/3 or 1/4 of pronotum. Eye: lower eye lobe about as tall as gena below it; over 2 × height of upper eye lobe; lobes connected by 4-6 rows of ommatidia. Upper eye lobes separated by about greatest width of scape. Mouthparts: frontoclypeal margin with fringe of short pubescence extending to about base of labrum (with longer setae at sides); clypeus without pubescence except at extreme base. Labrum coated with dense, mostly appressed, white or off-white pubescence with 8-10 long, suberect, translucent setae.

Thorax: Integument very dark reddish-brown. Pronotum with moderately protuberant, rounded lateral tubercles with greatest projection at middle; with moderately raised dorsal tubercles of following arrangement: large, partially denuded oval prominence at middle, surrounded by four tubercles (two strongly projecting anterolateral and two weakly projecting posterolateral). Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in appressed, reddish-brown or tawny pubescence (some specimens with ochraceous and white pubescence also), with indistinct patches of dark brown to black pubescence anteriorly at margin in front of anterolateral tubercles, posterior to posterolateral tubercles, laterally, opposite of humeral base, and at posterolateral margins on each side of pronotal disk. Pronotum with slight constriction before anterior and posterior margins, constrictions (particularly posteriorly) lined with row of separate, large punctures. Many additional smaller punctures scattered over pronotal disk, mostly free of pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, white or very pale ochraceous pubescence. Prosternal process broad between procoxae, about 3/4 width of procoxa. Scutellum very dark, moderately to densely reddish-brown pubescent; broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, white or off-white pubescence, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae broad, separating mesocoxae by about 1.2 × width of mesocoxa. Metasternum covered with appressed, white or off-white pubescence, becoming mottled at sides and on the lateral thoracic sclerites. Elytra: Integument very dark reddish-brown, covered with combination of mostly appressed, reddish-brown pubescence, but with numerous white, ochraceous, and black setae. Pattern typically with two incomplete transverse black maculae at posterior 1/2: one postmedially (bordered anteriorly by white pubescence), the other at apical 1/4 (not present in all specimens). Rows of small tubercles with tufts of black semi-erect setae present along costae and suture. Tubercles at base of elytra most prominent, forming weak crests. Humeri strongly projecting, partially denuded dorsally, marked at anterior margin with black macula corresponding to lateral black macula on prothorax. Epipleuron covered with reddish-brown pubescence and small, oval, black macula above metepisternum. Elytral apex subtruncate, with outer apical angle slightly produced posteriorly. *Legs*: mostly uniformly pubescent with appressed, tawny hairs, somewhat mottled; basal 1/3 and postmedial part of tibiae with partial annula of mottled white pubescence. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to beyond base of ventrite 5. Tarsi generally coated with short, appressed, white or off-white pubescence; apices of tarsomeres with less pubescence, darker.

*Abdomen*: Ventrites very dark reddish-brown, covered with appressed, white or off-white pubescence, becoming more splotchy at sides. Fifth ventrite of females  $1.3 \times$  broader than long, narrowed and greatly extended at middle, with inconspicuous glabrous midline at base, extending toward apex for about 1/5 of overall length.

**Distribution**. Endemic to Hispaniola, this species is known from the Cordillera Central, Sierra de Neiba, and Sierra de Baoruco in the Dominican Republic, and extreme southeast Haiti (Map 8).

**Remarks**. This species has been collected from May through September by blacklighting, beating, and hand collecting from the endemic Hispaniolan pine, *Pinus occidentalis*.

**Etymology**. The name is a Latin adjective referring to the overall dark color of the body.

Type material: Holotype (male): DOMINICAN REPUBLIC: La Vega Prov., Pico Duarte Trail, 3300 ft, Los Tablones, 19°08.222'N, 70°27.736'W, day collecting, 29 June 2004, S.W. Lingafelter (USNM); Paratypes: DOMINICAN REPUBLIC: La Vega Prov., same data as holotype but blacklighting, 17 July 2004 (USNM, 1 female); same data but La Ciénaga to Los Tablones, 17 July 2004 (USNM, 1 female); 12 km NE Jarabacoa, 550 m, 2 September 1988, pine forest, M.A. Ivie, T.K. Philips, and K.A. Johnson (WIBF, 1 female); same data but 7 September (WIBF, 1 male); vicinity of La Ciénaga, 18 July 1996, mercury vapor/ultraviolet light, M.C. Thomas (FSCA, 2 males, 1 female); 1.4-2.6 km E of Manabao, 5 June 1994, M.C. Thomas (FSCA, 1 male, 1 female); same data but 4 June 1994 (FSCA, 1 male); 9 km NE Jarabacoa, 2000 ft, 8-12 May 1985, E.F. Giesbert (EFGC, 1 male, 1 female); 10 km NE Jarabacoa, 8 and 12 May 1985, J.E. Wappes (JEWC, 1 male, 1 female); Pico Duarte Trail, Ciénaga to Los Tablones, beating, 19°08.222'N, 70°27.736'W, 29 June 2004, C.J. Micheli (JCPC, 1 male, 1 female); Parque National Armando Bermúdez, 1-3 km along trail W of La Ciénaga, 900-1100 m, beating, SpecID 7325, 6 June 2005, E.H. Nearns (ENPC, 1 male); Pedernales Prov., Sierra de Baoruco, Aceitil-
lar, 25.2 km ENE Pedernales 18°05'29"N, 71°31'16"W, 1272 m, 14 June 2003, C. Young, J. Rawlins, C. Nuñez, R. Davison, P. Acevedo, M. de la Cruz, dense broadleaf forest, pine, UV light, sample 42212 (CMNH, 3 males); **Peravia Prov.**, 5 km W of road to El Río, S of Pedregal, 19°05.092'N, 70°35.864'W, 52 m, 23 June 2005, S.W. Lingafelter (USNM, 1 male); **San Juán Prov.**, Sierra de Neiba, trail to Sabana del Silencio, 10 km SSW of El Cercado, 1650-1700 m, 18°39.935'N, 71°31.964'W, 10-11 July 2006, on *Pinus*, S.W. Lingafelter (USNM, 1 female); **HAITI**: 22 km SE Fonds Verrettes, refuge, 5500 ft, 8 August 1956, B. and B. Valentine, on lumber of *Pinus occidentalis* (WIBF, 1 male, 1 female).

#### Leptostylopsis chlorescens Lingafelter & Micheli, sp. n.

urn:lsid:zoobank.org:act:D7361043-7DC9-4851-9FFD-9D296032E68C Map 9, Figs 7, 20, 35, 50, 65, 80, 94, 109

**Diagnosis**. This species can be confused only with *L. viridicomus*, but *L. chlorescens* has even more pronounced iridescent green pubescence over most of the integument. The dorsal tubercles (in particular the median and anterolaterals) are more highly elevated in *L. chlorescens* than in *L. viridicomus*. The apex of the elytron in *L. chlorescens* has a distinctive white macula that has anteriorly directed, fingerlike extensions.

Description. Length: 8.0-12.5 mm; width: 3.0-5.0 mm.

Head: Covered throughout in dense, appressed, iridescent green pubescence with some ochraceous setae along frontoclypeal and eye margins. Partially obscured, narrow, median-frontal line, continuing on vertex; short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with mottled white to off-white and dark, translucent pubescence; dark annulate at apex and base of most antennomeres. Last antennomere mostly dark, with paler hairs at middle in some specimens. Antennae longer than body in both males and females, typically extending beyond elytral apices by 4-5 antennomeres. In both sexes, last antennomere slightly shorter than penultimate. Antennal scape extending to posterior 1/4 of pronotum. Eye: lower eye lobe subequal in height to gena below it; over 2 × height of upper eye lobe; lobes connected by 5-7 rows of ommatidia in most specimens. Upper eye lobes separated by about greatest width of scape. Mouthparts: frontoclypeal margin with sparse fringe of short pubescence extending to about base of labrum; clypeus without pubescence except at extreme base. Labrum with sparse white or off-white pubescence with 8-10 longer, suberect, translucent setae.

*Thorax*: Pronotum with prominent, narrowly rounded to subacute lateral tubercles with greatest projection slightly behind middle; mostly prominently raised dorsal tubercles with following arrangement: very large, partially denuded, highly projecting oval tubercle at middle, two smaller but as highly elevated anterolateral tubercles (sometimes partially denuded), and two weakly elevated posterolateral tubercles. Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in appressed, iridescent green pubescence but with very small, indistinct patches of dark brown to black pubescence in following arrangement: at basal margin, on each side between antero- and posterolateral tubercles, and at anterior margin on each side in front of anterolateral tubercles. Pronotum with slight constriction before anterior and posterior margins, constrictions (particularly posteriorly) lined with row of separate, large punctures. Smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, off-white or pale ochraceous pubescence. Prosternal process moderately broad between procoxae, slightly less than 2/3 width of procoxa. Scutellum moderately pubescent with iridescent green setae at middle and dark brown to black setae on lateral margins (and adjacent elytra); subtriangular, narrowly rounded to subacute posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, off-white or pale ochraceous pubescence, unlike most species, equally dense



**Maps 9-10.** Locality records for *Leptostylopsis chlorescens* Lingafelter & Micheli, *Leptostylopsis puntacanaensis* Lingafelter & Micheli, and *Leptostylopsis humerofulvus* Lingafelter & Micheli in Hispaniola.

on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae broad, separating mesocoxae by about width of mesocoxa. Metasternum and lateral thoracic sclerites covered with appressed, mottled off-white or pale ochraceous and iridescent green pubescence. *Elytra*: covered with appressed, mostly iridescent green pubescence with very small, scattered white and ochraceous pubescent patches particularly along suture, apical margin, and atop costal tubercles. Black pubescence on some elytral tubercles, along margins near scutellum, and in small apicolateral macula. White pubescence forming small apical macula with three elongate fingerlike projections directed anteriorly along costae. Tubercles at base of elytra most prominent, forming moderate crests. Humeri moderately projecting, anterior margin lacking black macula. Epipleuron with pronounced iridescent green pubescence. Elytral apex subtruncate, with outer apical angle more produced posteriorly than sutural angle. Legs: mostly uniformly pubescent with combination of appressed, iridescent green and white pubescence, somewhat mottled; middle and base of tibiae with incomplete annulae of white pubescence. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to about abdominal apex. Tarsi sparsely coated with short, appressed, white or pale green pubescence; apices not appreciably darker than bases.

*Abdomen*: Ventrites covered with mottled, appressed, off-white or pale ochraceous and iridescent green pubescence. Fifth ventrite of females about  $2.4 \times$  broader than long, narrowed and extended at middle, with a glabrous midline at base extending toward apex for 1/3 or more of overall length.

**Distribution**. This very rare species is known only from the Sierra de Baoruco region in southwestern Dominican Republic (Map 9).

Remarks. All three known specimens were collected by beating at a tree fall in July.

**Etymology**. The name is a modified Latin adjective referring to the greenish color of the pubescence over most of the integument.

**Type material: Holotype** (male): **DOMINICAN REPUBLIC: Pedernales Prov.**, Parque Nacional Sierra de Baoruco, Las Abejas, 1150 m, 18°09.011'N, 71°37.342'W, beating, 11 July 2004, S.W. Lingafelter (USNM); **Paratypes**: same data (USNM, 1 female); same data but C.J. Micheli (donated to USNM by JCPC, 1 female).

# *Leptostylopsis humerofulvus* Lingafelter & Micheli, sp. n. urn:lsid:zoobank.org:act:70EA3DE1-AAA2-4CA8-8515-0564C843D0B0 Map 10, Figs 9, 22, 37, 52, 67, 82, 96, 111

**Diagnosis**. This species is easily recognized by the mostly uniform, ochraceous pubescence on the pronotum and basal 1/5 of the elytra, the small, postmedial black macula near the elytral suture, the transversely truncate elytral apices, and the pronotum with very weak, rounded lateral tubercles. Other unique features of this species are the antennal scape that lacks a distinct apical, dark annula, and upper eye lobes which are very close together.



Figures 74-87. Ventral view of ventrite 5 of female showing proportions and pubescence patterns. Females are unknown for *Leptostylopsis puntacanaensis*. 74 *Leptostylus transversus* Gyllenhal 75 *Leptostylopsis terraecolor* Horn 76 *Leptostylopsis annulipes* (Fisher) 77 *Leptostylopsis argentatus* (Jacquelin du Val) 78 *Leptostylopsis basifulvus* Lingafelter & Micheli 81 *Leptostylopsis caliginosus* Lingafelter & Micheli 81 *Leptostylopsis cristatus* (Fisher) 82 *Leptostylopsis humerofulvus* Lingafelter & Micheli 83 *Leptostylopsis milleri* (Fisher) 84 *Leptostylopsis perfasciatus* Lingafelter & Micheli 85 *Leptostylopsis poeyi* (Fisher) 86 *Leptostylopsis thomasi* Lingafelter & Micheli 87 *Leptostylopsis viridicomus* (Fisher).

Leptostylopsis annulipes is similar in having distinct castaneous pubescence on the pronotum and elytral base, but this pubescence is less extensive than in *L. humerof-ulvus*. Furthermore, *L. annulipes* has a darker scutellum with dark patches on either side whereas in *L. humerofulvus* the scutellum is more similarly colored to the adjacent elytra. Also, *L. humerofulvus* usually lacks a dark subhumeral basal black spot which is present in *L. annulipes* and *L. milleri*.

## Description. Length: 7.5-12.0 mm; width: 3.0-4.5 mm.

Head: Covered throughout in dense, appressed, mottled tawny, white, and ochraceous pubescence, with exception of narrow, median-frontal line extending from fronto-clypeal margin to between lower eye lobes and short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae, to base of mandible. Pubescence on frons and vertex much finer than that on genae. Antenna: covered with dense, appressed, mottled white, tawny, and dark brown pubescence; annulate at apex and base of most antennomeres with exception of scape and usually antennomeres 2 and 3. Last antennomere uniformly dark in females, without annulae, similar in color to apex of penultimate antennomere; in males, antennae uniformly light or slightly paler at base than apex. Antennae long; typically extending beyond apices by 5-6 antennomeres in males and 4-5 in females. In both sexes, last antennomere shorter than penultimate. Antennal scape extending to posterior 1/3 of pronotum. Eye: lower eye lobe slightly less than height of gena below it; over 2 × height of upper eye lobe; lobes connected by 5-6 rows of ommatidia in most specimens. Upper eye lobes very close together, separated by much less than greatest width of scape. Mouthparts: frontoclypeal margin with fringe of short pubescence extending about halfway to base of labrum; clypeus without pubescence except at extreme base. Labrum covered with short, mostly appressed, white or ochraceous pubescence with 8-10 long, suberect, translucent setae.

Thorax: Pronotum with very slightly protuberant, broadly rounded lateral margins with greatest projection at middle; weakly raised dorsal tubercles with following arrangement: oval, partially denuded prominence at middle, surrounded by four weakly elevated tubercles (two anterolateral and two posterolateral). Pronotum without significant anteromedial elevation at margins. Pronotum mostly covered in appressed, ochraceous pubescence (and to a lesser extent, white pubescence), median region darker due to combination of translucent and less dense pubescence revealing dark brown integument. In some specimens, darker central region with some iridescent green pubescence. Pronotum with moderate constriction before anterior and posterior margins, constrictions (particularly posteriorly) lined with row of separate, large punctures. Smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, ochraceous or tawny pubescence. Prosternal process very broad between procoxae, about equal to width of procoxa in most specimens. Scutellum moderately to densely tawny or ochraceous pubescent (occasionally with white pubescence at apex); broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed pubescence, nearly as dense on anterior 1/3 which is deeply constricted.

Mesosternal process between mesocoxae broad, separating mesocoxae by about  $1.2 \times$ width of mesocoxa. Metasternum and lateral thoracic sclerites covered with mottled, appressed, white and ochraceous pubescence. *Elytra*: covered with combination of mostly appressed, ochraceous, white, tawny, iridescent green, and black pubescence. Ochraceous pubescence of same color as pronotum forms distinct band on basal 1/5 of elytra. Darker, often triangular region of sparser, more translucent setae behind band. Small black macula near suture postmedially. Elytral margin dark along scutellum. Rows of small, ochraceous pubescent tubercles generally along costae, absent along suture. Tubercles at base of elytra most prominent. Humeri projecting very slightly, with dark basal margin, without distinct macula. Epipleuron dark brown at anterior 1/2, with ochraceous pubescence at apical 1/2. Elytral apex transversely truncate, with outer apical angle equally or less produced posteriorly than sutural angle. Legs: mostly uniformly pubescent with appressed hairs (white, tawny, and ochraceous), somewhat mottled; apex and basal 1/3 of tibiae annulate due to less dense pubescence exposing darker integument. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to about middle of ventrite 5. Base of tarsomeres generally covered with short, appressed pubescence similar in color to remainder of legs; apex of fifth tarsomere (and sometimes 1 and 2) sparsely pubescent, dark.

*Abdomen*: Ventrites covered with mottled, appressed, off-white and ochraceous pubescence. Fifth ventrite of females about  $2 \times$  as broad as long; weakly narrowed or extended at middle, with glabrous midline at base, extending toward apex for 1/3 or more of overall length.

**Distribution**. Endemic to Hispaniola, this species is known only from the Cordillera Central and Barahona Peninsula of the Dominican Republic (Map 10).

**Remarks**. This species has been collected from June through August by blacklighting, beating at a tree fall, and sampling from dead tree trunks and large branches.

**Etymology**. The name is a compound Latin noun that refers to the fulvous elytral base.

**Type material: Holotype** (male): **DOMINICAN REPUBLIC: Pedernales Prov.**, Parque Nacional Sierra de Baoruco, Las Abejas, 1150 m, 18°09.011'N, 71°37.342'W, ex. dead log w/ white fungus, 11 July 2004, S.W. Lingafelter (USNM); **Paratypes: DOMINICAN REPUBLIC: Barahona Prov.**, Filipinas, 18°07.339'N, 71°07.152'W, 625 m, blacklight/night beating, 7 July 2004, S.W. Lingafelter (USNM, 1 female); same data but 6 July 2004, C.J. Micheli (JCPC, 1 male); **La Vega Prov.**, Pico Duarte Trail, 3300 ft, Los Tablones, 19°08.222'N, 70°27.736'W, blacklighting, 17 July 2004, S.W. Lingafelter (USNM, 1 male, 1 female); **Pedernales Prov.**, Parque Nacional Sierra de Baoruco, Las Abejas, 1150 m, 18°09.011'N, 71°37.342'W, at tree fall, 18 June 2005, E.H. Nearns and S.W. Lingafelter, SpecID 6906, 6907 (ENPC, 2 females); N of Pedernales, border rd Río Banano, S of Arroyos, 18°09.291'N, 71°45.540'W, 21 July 1999, M.A. Ivie and K.A. Guerrero (WIBF, 1 female); 24 km N Cabo Rojo, 610 m, 19 August 1988, wet forest, M.A. Ivie, Philips and Johnson (WIBF, 1 female); same data as holotype (USNM, 1 male).

## Leptostylopsis perfasciatus Lingafelter & Micheli, sp. n.

urn:lsid:zoobank.org:act:3DF7B88E-53B8-4E9E-BCF3-EF1F6287E5C9 Map 11, Figs 11, 24, 39, 54, 69, 84, 98, 113

**Diagnosis**. This species is easily recognized among Hispaniolan *Leptostylopsis* by the very long antennae and the presence of white or ochraceous pubescence over most of body, combined with a dark middle macula on the pronotum and a series of black maculae on the epipleuron and postmedially on the elytra. Other characters that distinguish it from similar species include the weak tubercles on the pronotum, the dark, unicolorous tarsi, and the angulate elytral apex.

*Leptostylopsis longicornis* (Fisher), known only from Puerto Rico, is very similar to *L. perfasciatus*, however, the former has much longer antennae, lacks the epipleural black macula extending onto the elytral disk, and has a small, transverse black macula near the suture, just postmedially, which is absent in *L. perfasciatus*.



**Maps 11-12.** Locality records for *Leptostylopsis perfasciatus* Lingafelter & Micheli and *Leptostylopsis thomasi* Lingafelter & Micheli in Hispaniola.



Figures 88-102. Lateral view of elytron showing basal tubercles, epipleuron, and form of appressed or semierect pubescence. 88 Leptostylus transversus Gyllenhal 89 Leptostylopsis terraecolor Horn 90 Leptostylopsis annulipes (Fisher) 91 Leptostylopsis argentatus (Jacquelin du Val) 92 Leptostylopsis basifulvus Lingafelter & Micheli 93 Leptostylopsis caliginosus Lingafelter & Micheli 94 Leptostylopsis chlorescens Lingafelter & Micheli 95 Leptostylopsis cristatus (Fisher) 96 Leptostylopsis humerofulvus Lingafelter & Micheli 97 Leptostylopsis perfasciatus Lingafelter & Micheli 99 Leptostylopsis perfasciatus Lingafelter & Micheli 99 Leptostylopsis poeyi (Fisher) 100 Leptostylopsis puntacanaensis Lingafelter & Micheli 101 Leptostylopsis thomasi Lingafelter & Micheli 102 Leptostylopsis viridicomus (Fisher).

#### Description. Length: 7.0-11.0 mm; width: 3.0-4.5 mm.

Head: Covered in dense, appressed, mostly white, pubescence throughout, yellow or ochraceous pubescence also present in some specimens. Narrow, median-frontal line from fronto-clypeal margin to between lower eye lobes, extending onto vertex. Short, glabrous frontal-genal line, extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, mottled, mostly white, off-white, pale ochraceous, and black pubescence; dark annulate at apex and base of most antennomeres. Last antennomere variably colored: either all dark, with apical 1/2 dark, or with dark annulae at base and apex. Antennae very long, typically extending beyond elytral apices by 5-6 antennomeres in males; extending beyond elytral apices by about 4-5 antennomeres in females. In both sexes, last antennomere shorter than penultimate. Antennal scape extending to posterior 1/4 of pronotum. Eye: lower eye lobe about as tall as gena below it; over 2 × height of upper eye lobe; lobes connected by 5-6 rows of ommatidia in most specimens. Upper eye lobes separated by little more than greatest width of scape. Mouthparts: frontoclypeal margin with fringe of mostly short, ochraceous or white pubescence extending about halfway to base of labrum (but longer at sides); clypeus without pubescence except at extreme base. Labrum covered at base with dense, mostly appressed, white or ochraceous pubescence with 8-10 long, suberect, translucent setae.

Thorax: Pronotum with slightly protuberant, broadly or narrowly rounded lateral tubercles with greatest projection slightly behind middle; with weakly raised dorsal tubercles of following arrangement: oval prominence at middle, partially denuded, surrounded by four smaller tubercles (two anterolateral and two posterolateral). Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in appressed, white, off-white, or ochraceous pubescence (or some combination), with dark, broad central region with less dense and translucent pubescence revealing reddish-brown integument. Small, dark macula present on anterior margin on each side, opposite upper eye lobe, and at middle of anterior margin (occasionally indistinct and not separate from large middle dark region). Pronotum with slight constriction before anterior and posterior margins, constrictions (particularly posteriorly) lined with row of separate, large punctures. Smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, white or off-white pubescence. Prosternal process broad between procoxae, about 0.8 × width of procoxa in most specimens. Scutellum moderately white or ochraceous pubescent (with sparse pubescence at sides); broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, white or off-white pubescence, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae very broad, separating mesocoxae by about  $1.3 \times$  width of mesocoxa. Metasternum and lateral thoracic sclerites with appressed, white or off-white pubescence. *Elytra*: boldly covered with white, off-white, and ochraceous pubescence with less dense regions of translucent and black setae forming dark maculae at middle of epipleuron, extending to elytral disk, postmedially, extending from near suture to edge of disk, and less distinctively at apical 1/4. Small patches of black pubescence present on many tubercles mostly along costae and suture. Tubercles at base of elytra most prominent, forming weak crests. Humeri projecting moderately, without black macula at anterior margin. Epipleuron poorly defined; with white or ochraceous pubescence throughout except for dark macula at middle extending onto disk. Elytral apex angulate, with outer apical angle much more produced posteriorly than sutural angle. *Legs*: mostly uniformly pubescent with white or off-white appressed hairs; apex and basal 1/3 of tibiae annulate due to less dense, translucent, and black pubescence exposing darker integument. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to about middle of ventrite 5. Tarsi dark and unicolorous, coated with short, sparse, appressed, mostly translucent pubescence.

*Abdomen*: Ventrites covered with appressed, white or off-white pubescence. Fifth ventrite of females only  $1.5 \times$  broader than long, narrowed and extended at middle, with a glabrous midline at base, extending toward apex for 1/3 or more of overall length.

**Distribution**. This widespread, endemic Hispaniolan species occurs throughout the Dominican Republic (Map 11).

**Remarks**. This species has been documented in January and April through August by blacklighting, day and night beating, collecting from dead logs, and trapping using Malaise traps.

**Etymology**. The name is a modified Latin adjective referring to the striking bands on the elytra.

Type material: Holotype (male): DOMINICAN REPUBLIC: Barahona Prov., Filipinas, 18°07.339'N, 71°07.152'W, 625 m, blacklight/night beating, 7 July 2004, S.W. Lingafelter (USNM); Paratypes: DOMINICAN REPUBLIC: Barahona Prov., same data as holotype (USNM, 1 male, 1 female); 32 km S Barahona, near coast, 29 August 1988, on dead logs, M.A. Ivie, T.K. Philips and K.A. Johnson (WIBF, 1 female); 11 km S Barahona, 6-17 May 1985, E.F. Giesbert (EFGC, 3 males, 2 females); road to Polo, S slope, 860 m, 14 July 1996, M.C. Thomas (FSCA, 1 male); 11 km S Barahona, 15 and 17 May 1985, J. E. Wappes (JEWC, 3 males); Duarte Prov., Reserva Loma Quita Espuela, El Cadillar, 6.7 km NE San Francisco de Macorís, 19°20'12"N, 70°08'59"W, 280 m, 5 April 2004, R. Davidson, J. Rawlins, C. Young, weedy regrowth with coffee, cacao, UV light, sample 50313 (CMNH, 1 female); La Altagracia Prov., Punta Cana, near Ecological Reserve, 0-5 m, 18°30.477'N, 68°22.499'W, 2-7 July 2005, attracted to lights, N.E. Woodley (USNM, 2 males, 1 female); same data but S.W. Lingafelter (USNM, 2 males); same data but 7 July 2005 (USNM, 1 male); same data but 5 July 2006, cut wood at night (USNM, 1 female); El Verón, road to Hoyo Azul, 25-40 m, day coll., 18°33.610'N, 68°26.881'W, 4 July 2005, N.E. Woodley (USNM, 1 male); same data but 4 July 2006, beating, S.W. Lingafelter (USNM, 1 male, 1 female); Boca de Yuma, entra. Parque Nacional del Este, 6 August 1999, 18°21.904'N, 68°37.094'W, M. A. Ivie, beating vegetation (WIBF, 1 female); Nisibon, 5 June 1978, Malaise trap, R.E. Woodruff and G.B. Fairchild (WIBF, 1 female); Nisibon, Finca Papagallo,

blacklight, R.E. Woodruff and R.M. Baranowski, 16-19 June 1999 (RWPC, 1 male); 2 km N Bayahibe, 18°23'N, 68°51'W, 10 m, 3 July 1992, C. Young, R. Davidson, S. Thompson, J. Rawlins, dry seasonal forest on limestone (CMNH, 1 female); La Vega Prov., 9 km NE Jarabacoa, 8-12 May 1985, E.F. Giesbert (EFGC, 3 males, 6 females); Jarabacoa, beating trees along river, January 26, 1954, E.L. Mockford (FSCA, 1 female); ca. 5 km S Constanza, 1250 m, 31 August 1988, at light, pineguava forest, M.A. Ivie, T.K. Philips, and K.A. Johnson (WIBF, 1 male); 10 km NE Jarabacoa, 8 and 12 May 1985, J.E. Wappes (WIBF, 2 males, 1 female); same data (JEWC, 12 males, 5 females); Pedernales Prov., Parque Nacional Jaragua, trail to Carlitos, ca. 6 km S of Highway 44, 106 m, 17°48.932'N, 71°28.271'W, 16 June 2006, N.E. Woodley (USNM, 1 male); Parque Nacional Jaragua, 99 m, on fallen tree, 3 km S Los Tres Charcos, SpecID 6989 and 6993, E.H. Nearns and S.W. Lingafelter, 16 June 2005 (ENPC, 2 males); 9.5 km N Cabo Rojo, 33 m, 18°00.042'N, 71°38.793'W, 8 August 1999, lights & beating, M.A. Ivie and K.A. Guerrero (WIBF, 1 female); San Pedro de Macorís Prov., 2 km E Boca Chica, 30 May 1978, C.W. and L.B. O'Brien and Marshall (JCPC, 1 male).

#### Leptostylopsis puntacanaensis Lingafelter & Micheli, sp. n.

urn:lsid:zoobank.org:act:6669B9CA-4E80-407B-B36A-23A31E74D861 Map 9, Figs 13, 26, 41, 56, 71, 100, 115

**Diagnosis**. This species is easily distinguished by its relatively large size and bold pattern of dense, white and ochraceous pubescence over most of the body. Furthermore, the long antennae, very small lower eye lobes, and widely separated upper eye lobes are characteristic of *L. puntacanaensis*.

Description. Length: 13.0-15.0 mm; width: 5.0-6.0 mm.

Head: Covered throughout in dense, appressed, white and ochraceous pubescence, with small, black macula extending from upper eye lobes to margin of pronotum. Narrow, median-frontal line extending between antennal tubercles onto vertex. Short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible, continuing to lower eye lobe. Antenna: covered with dense, appressed, mottled white and ochraceous pubescence; vaguely dark annulate at apex and base of most antennomeres. Last antennomere uniformly pale or slightly darker at apex. Antennae longer than body in males, typically extending beyond elytral apices by 5-6 antennomeres; last antennomere distinctly shorter than penultimate. Antennal scape extending to posterior 1/4 of pronotum. Eye: lower eye lobe very small, about  $0.8 \times$  height of gena below it; less than  $2 \times$  height of upper eye lobe; lobes connected by 6-8 rows of ommatidia. Upper eye lobes widely separated by much more than greatest width of scape. *Mouthparts*: frontoclypeal margin with fringe of short, white pubescence extending to base of labrum (longer at sides); clypeus without pubescence except at extreme base. Labrum covered with dense, white or off-white pubescence with 8 long, suberect, translucent setae.



Figures 103-117. Dorsal view of protarsus and apex of protibia (all male specimens). 103 Leptostyluss transversus Gyllenhal 104 Leptostylopsis terraecolor Horn 105 Leptostylopsis annulipes (Fisher) 106 Leptostylopsis argentatus (Jacquelin du Val) 107 Leptostylopsis basifulvus Lingafelter & Micheli 108 Leptostylopsis caliginosus Lingafelter & Micheli 109 Leptostylopsis chlorescens Lingafelter & Micheli 110 Leptostylopsis cristatus (Fisher) 111 Leptostylopsis humerofulvus Lingafelter & Micheli 112 Leptostylopsis milleri (Fisher) 113 Leptostylopsis perfasciatus Lingafelter & Micheli 114 Leptostylopsis poeyi (Fisher) 115 Leptostylopsis puntacanaensis Lingafelter & Micheli 116 Leptostylopsis thomasi Lingafelter & Micheli 117 Leptostylopsis viridicomus (Fisher).

Thorax: Pronotum with very protuberant, narrowly rounded to subacute lateral tubercles with greatest projection slightly behind middle; weakly raised dorsal tubercles of following arrangement: large oval prominence at middle, more elevated than others, surrounded by four smaller tubercles (two anterolateral and two posterolateral). Pronotum without anteromedial elevation at margin. Pronotum mostly covered in appressed, white and ochraceous pubescence. Ochraceous pubescence forming undulating band over posterior 1/3 or 1/4 of pronotum. Black maculae in following pattern: on anterior pronotal edge, opposite black maculae of head; on posterior margin at middle; at sides opposite elytral humeral base; halfway between middle and lateral posterior maculae. Pronotum slightly constricted before anterior

and posterior margins; constrictions (particularly posteriorly) lined with row of separate, large punctures. Smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, white or off-white pubescence. Prosternal process relatively narrow between procoxae, about 1/2 width of procoxa. Scutellum moderately to densely white pubescent (with some ochraceous pubescence at apex); broadly rounded posteriorly. Mesosternum smooth, impunctate, covered with uniform, appressed, white or off-white pubescence, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae relatively narrow, separating mesocoxae by about width of mesocoxa. Metasternum and lateral thoracic sclerites covered with appressed, white or off-white pubescence. *Elytra*: covered with mostly white and ochraceous, but also black, appressed pubescence. Pubescence forming patterns as follows: black macula at elytral base, extending longitudinally along 1/2 of epipleuron; indistinct ochraceous band behind scutellum, originating from suture to about midway across elytral disk; vague alternating white and ochraceous longitudinal stripes at about middle 1/3; apical 1/3 of elytron with less white pubescence (mostly ochraceous), bordered anteriorly by narrow, black margin; small black macula (variably developed) above epipleuron at middle. Rows of small tubercles generally along costae and suture. Tubercles at base of elytra most prominent, forming weak crests. Humeri projecting slightly, marked at anterior margin with black macula corresponding to small black macula on prothorax. Epipleuron with elongate, black macula extending from base; with white and ochraceous pubescence elsewhere. Elytral apex subtruncate, with outer apical angle more produced posteriorly than sutural angle. Legs: mostly uniformly white pubescent with appressed hairs, somewhat mottled; apex and basal 1/3 of tibiae annulate due to less dense and translucent pubescence exposing darker integument. Hind legs much longer than forelegs; metafemora extending to about abdominal apex. Tarsomeres 1 and 2 generally covered with short, appressed, white pubescence; remaining tarsomeres sparsely pubescent and dark.

*Abdomen*: Ventrites covered with appressed, white or off-white pubescence. Fifth ventrite much broader than long in males, and slightly notched at middle (females unknown).

**Distribution**. This rare species is known from two specimens collected at Punta Cana in extreme eastern Dominican Republic (Map 9).

**Remarks**. One specimen was obtained by beating in June and the other was attracted to lights in July.

**Etymology**. The name is a latinized adjective referring to the eastern Dominican Republic locality where this species was collected.

**Type material: Holotype** (male): **DOMINICAN REPUBLIC: La Altagracia Prov.**, Punta Cana, near Ecological Reserve, 0-5 m, 18°30.477'N, 68°22.499'W, attracted to lights, 2-7 July 2005, N.E. Woodley (USNM); **Paratype**: same data as holotype, but beating, E.H. Nearns and S.W. Lingafelter, 14 June 2005, SpecID 7459 (donated to USNM by ENPC, 1 male).

#### Leptostylopsis thomasi Lingafelter & Micheli, sp. n.

urn:lsid:zoobank.org:act:0032FC94-2797-4C44-9721-794574141BBA Map 12, Figs 14, 27, 42, 57, 72, 86, 101, 116

**Diagnosis**. This species is most similar to *L. viridicomus*, but is recognized by the bold, undulating, transverse white macula on the apical 1/4 of the elytra. The sparse, white pubescence with a greenish tinge (less iridescent green than in *L. viridicomus*) over much of the head, pronotum, and elytra is also distinctive. Other distinctive characters include the short pronotum with subacute lateral tubercles and the narrowly rounded to subacute scutellum.

Description. Length: 7.0-11.0 mm; width: 3.0-4.0 mm.

Head: Covered throughout in dense, appressed, mottled off-white or pale ochraceous pubescence with slight greenish tinge. Small patch of iridescent green pubescence at middle of head between lower eye lobes in most specimens. Narrow, medianfrontal line from fronto-clypeal margin to between lower eye lobes, continuing along vertex. Short, glabrous frontal-genal line extending from anterior tentorial pits along anterior margin of genae to base of mandible. Antenna: covered with dense, appressed, mottled white, off-white, and dark brown pubescence; dark annulate at apex and base of most antennomeres. Last antennomere uniformly dark in most specimens, without annulae, similar in color to apex of penultimate antennomere. Antennae longer than body in both sexes, typically extending beyond elytral apices by 4-5 antennomeres. Last antennomere slightly shorter than penultimate. Antennal scape extending to near posterior margin of pronotum. Eye: lower eye lobe about  $0.9 \times$  as tall as gena below it; over 2 × height of upper eye lobe; lobes connected by 4-6 rows of ommatidia in most specimens. Upper eye lobes separated by about greatest width of scape. Mouth*parts*: frontoclypeal margin with fringe of short off-white pubescence extending about halfway to base of labrum (but longer at sides); clypeus without pubescence except at extreme base. Labrum covered with dense, short white or off-white pubescence with 8-10 long, suberect, translucent setae.

*Thorax*: Pronotum with very protuberant, subacute lateral tubercles with greatest projection at or slightly behind middle; weakly raised dorsal tubercles of following arrangement: large oval prominence at middle, slightly denuded of pubescence, surrounded by four smaller tubercles (two anterolateral and two posterolateral). Pronotum with slight anteromedial elevation at margin. Pronotum mostly covered in appressed, white or off-white pubescence with a greenish tinge. Black maculae present in following pattern: on anterolateral pronotal edge; on posterior margin at middle; at sides opposite elytral humeral base; halfway between middle and lateral posterior maculae. Pronotum slightly constricted before anterior and posterior margins; constrictions (particularly posteriorly) lined with row of separate, large punctures. Smaller punctures scattered over pronotal disk, some obscured by pubescence. Prosternum smooth, impunctate, covered with uniform, appressed, offwhite pubescence with greenish tinge. Prosternal process relatively narrow between procoxae, slightly less than 2/3 width of procoxa. Scutellum dark reddish-brown with sparse off-white pubescence with greenish tinge in most specimens; narrowly rounded posteriorly to subtriangular. Mesosternum smooth, impunctate, covered with uniform, appressed, off-white pubescence with greenish tinge, less dense on anterior 1/3 which is deeply constricted. Mesosternal process between mesocoxae relatively narrow, separating mesocoxae by slightly less than width of mesocoxa. Metasternum covered with appressed, off-white to slightly iridescent green pubescence, becoming mottled at sides and lateral thoracic sclerites. *Elytra*: mostly sparsely covered with pale white or translucent pubescence with a green tinge; much of reddish-brown integument exposed. Bold, undulating transverse macula of dense, white pubescence at apical 1/3, partially bordered posteriorly by black macula, two indistinct off-white or ochraceous maculae immediately behind. Rows of small tubercles with tufts of semierect, black pubescence present along costae. Tubercles at base of elytra most prominent, forming weak crests. Humeri projecting slightly, marked at anterior margin with black macula that corresponds to small black macula on prothorax. Epipleuron with vague iridescent pale green pubescence anteriorly, white pubescence posteriorly. Elytral apex subtruncate, with outer apical angle more produced than sutural angle. Legs: mostly uniformly pubescent with appressed hairs (some combination of white, off-white, iridescent green), somewhat mottled; apex and basal 1/3 of tibiae annulate due to less dense pubescence exposing darker integument. Tibiae approximately equal in length to femora; hind legs much longer than forelegs; metafemora extending to middle of ventrite 5. Tarsi dark, with sparse pubescence.

*Abdomen*: Ventrites covered with appressed, white, tawny, or iridescent green pubescence (or some combination), becoming splotchy at sides. Fifth ventrite of females about  $2.3 \times$  broader than long, narrowed and extended at middle, with a glabrous midline at base, extending toward apex for 1/3 or more of overall length.

**Distribution**. This species is known only from the Sierra de Baoruco range in the Barahona Peninsula of the Dominican Republic and the corresponding range, called the Massif de la Selle, in southeast Haiti (Map 12).

**Remarks.** This rare species has been collected only above 1000 m from May through August by beating and at lights.

**Etymology**. This species is named for Michael Thomas (FSCA) who collected part of the type series.

Type material: Holotype (female): DOMINICAN REPUBLIC: Pedernales Prov., Parque Nacional Sierra de Baoruco, Las Abejas, 1150 m, 18°09.011'N, 71°37.342'W, beating, 17 July 2006, S.W. Lingafelter (USNM); Paratypes: DO-MINICAN REPUBLIC: Pedernales Prov., same data as holotype but night collecting (USNM, 1 male); Parque Nacional de Sierra de Baoruco, 1240 m, 18°09.023'N, 71°37.387'W, Las Abejas, 9 August 1999, light, M.A. Ivie and K.A. Guerrero (WIBF, 1 male); HAITI: Morne Guimby, 22 km SE Fond Verrettes, 17 July 1956, 6500 ft, B. and B. Valentine, Foret des Pins, Hardwood cloud forest beating (WIBF, 1 female); HAITI: Dept. Sud-Ouest, Massif de La Selle, Morne d'Enfer, 1850 m, 15 May 1984, M.C. Thomas (FSCA, 1 male, 1 female).

# Key to the species of *Leptostylopsis* of Hispaniola

1	Dorsal surface of elytra and/or elytral epipleura with some iridescent green pubescence (sometimes only visible from certain viewing angles)2
_	Elytra without iridescent green pubescence
2(1)	Iridescent green pubescence abundant and nearly uniform over most of dor- sal surface
_	Iridescent green pubescence limited to small patches
3(2)	Prothorax with a distinct black macula on each side opposite base of elytral
	humerus; elytral epipleuron with large black macula at middle
_	Prothorax without a black macula on side, opposite base of elytral humerus; elytral epipleuron with very small black macula at most
	<i>L. chlorescens</i> , sp. n.
4(2)	Pronotum with very reduced, broadly rounded lateral tubercles; upper eye lobes much closer together than greatest width of scape; antennal scape without apical, dark, annula
_	Pronotum with moderately to strongly projecting lateral tubercles; upper eye
	lobes as far or farther apart than greatest width of scape; antennal scape dark annulate at apex
r(h)	*
5(4)	Elytra with a distinct, transverse, undulating band of white pubescence at
	posterior 1/3, extending from suture to lateral edge; scutellum narrowly
	rounded posteriorly; pronotum without ochraceous pubescence
_	Elytra without an undulating, transverse band of white pubescence extending
	from suture to lateral edge; scutellum broadly rounded posteriorly; pronotum
	with abundant ochraceous pubescence
((1))	*
6(1)	Tarsomeres uniformly dark, not contrasting with apex of tibiae
_	Most tarsomeres with white, off-white, or ochraceous pubescence at base at least, contrasting with apex of tibiae
7(6)	Antennae very long, extending beyond elytral apices by at least 4 antenno-
	meres; pronotum without distinct black maculae; lateral pronotal tubercles
	very weakly projecting and broadly rounded <i>L. perfasciatus</i> , sp. n.
_	Antennae short, extending beyond elytral apices by less than 3 antennomeres;
	pronotum with numerous distinct, black maculae; lateral pronotal tubercles
0(()	strongly projecting and abruptly rounded to subacute <i>L. poeyi</i>
8(6)	Pubescence on elytral tubercles suberect
-	Pubescence on elytral tubercles appressed9
9(8)	Length greater than 13 mm; lower eye lobe very small, distinctly less than
	height of gena below it; prosternal process between procoxae less than 2/3
	width of procoxa
_	Length less than 13 mm; lower eye lobe at least as tall as gena below it; pros-
	ternal process between procoxae at least $2/3$ width of procoxa10
	ternar process between procosae at least 275 within or procosa

# Summary of Hispaniolan Leptostylopsis and nomenclatural changes

## Leptostylopsis Dillon

Leptostylopsis annulipes (Fisher 1942), comb. n. [from Leptostylus] Leptostylopsis hispaniolae (Fisher 1942), syn. n. Leptostylopsis argentatus (Jacquelin du Val 1857) Leptostylopsis basifulvus Lingafelter and Micheli, sp. n. Leptostylopsis caliginosus Lingafelter and Micheli, sp. n. Leptostylopsis chlorescens Lingafelter and Micheli, sp. n. Leptostylopsis cristatus (Fisher 1925) Leptostylopsis milleri (Fisher 1932) Leptostylopsis perfasciatus Lingafelter and Micheli, sp. n. Leptostylopsis perfasciatus Lingafelter and Micheli, sp. n. Leptostylopsis poeyi (Fisher 1925), comb. n. [from Leptostylus] Leptostylopsis poeyi (Fisher 1925), comb. n. [from Leptostylus] Leptostylopsis thomasi Lingafelter and Micheli, sp. n. Leptostylopsis thomasi Lingafelter and Micheli, sp. n.

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#### References

- AMNH (2009) American Museum of Natural History Online Type Database. http://www. research.amnh.org/invertzoo/types\_db/ [accessed 1.V.2009]
- Dillon LS (1956) The Nearctic components of the tribe Acanthocinini. Part I. Annals of the Entomological Society of America 49(2): 134-167.
- Fisher WS (1925) New West Indian Cerambycidae (Coleoptera). Subfamily Lamiinae. American Museum Novitates 174: 1-16.
- Fisher WS (1932) New West Indian cerambycid beetles. Proceedings of the United States National Museum 80(22): 1-93.
- Fisher WS (1942) New West Indian cerambycid beetles, III. Torreia 10: 1-43.
- Gilmour EF (1963) On the neotropical Acanthocinini (Coleoptera, Cerambycidae, Lamiinae). Some Caribbean genera and species. Studies on the fauna of Curação 17(76): 57-96.
- Gyllenhal L (1817) Appendix ad. In: Schoenherr CJ (Ed) Synonymia Insectorum, Tom. 1, part 3, sistens descriptiones novarum specierum. Scaris. Officina Lewerentziana, 266 pp.
- Horn GH (1880) Notes on some genera of Cerambycidae with descriptions of new species. Transactions of the American Entomological Society 8: 115-138.
- Jacquelin du Val PNC (1857) In: R. de la Sagra, Histoire Physique, Politique et Naturelle de l'Ile de Cuba 7: 1-328.
- LeConte JL (1852) An attempt to classify the longicorn Coleoptera of the part of America, north of Mexico. Journal of the Academy of Natural Sciences of Philadelphia (2)2: 139-178.

- Lingafelter SW (2008) Seven new species of Elaphidiini (Coleoptera: Cerambycidae) from the Dominican Republic with taxonomic notes, new country records, and a key to *Elaphidion* Audinet-Serville from Hispaniola. The Coleopterists Bulletin 62(3): 353-379.
- Lingafelter SW, Nearns EH (2006) Rediscovery and redescription of the remarkable *Phoenicus sanguinipennis* Lacordaire (Coleoptera: Cerambycidae: Trachyderini) from the Dominican Republic. The Coleopterists Bulletin 60(4): 199-206.
- Lingafelter SW, Nearns EH (2007) Five new species of longhorned beetles (Coleoptera: Cerambycidae) from the Dominican Republic in genera *Ataxia* Haldeman, *Atimiola* Bates, *Drycothaea* Thomson, *Eburia* Lepeletier & Audinet-Serville, and *Hormathus* Gahan. The Coleopterists Bulletin 61(2): 177-191.
- Lingafelter SW, Nearns EH (2009) Cerambycidae holotypes of the Smithsonian Institution. Available at http://www.elaphidion.com [last accessed May 1, 2009].
- Lingafelter SW, Woodley NE (2007) A new species of *Derancistrus* Audinet-Serville (Coleoptera: Cerambycidae: Prioninae) from Dominican Republic with notes on other species of Prioninae of Hispaniola. The Coleopterists Bulletin 61(2): 165-175.
- MCZC (2009) Museum of Comparative Zoology, Harvard University, Database of Images of Primary Types. http://insects.oeb.harvard.edu/mcz/index.htm [accessed 1.V.2009]
- Micheli CJ (2006) Studies on the longhorned woodboring beetles (Coleoptera: Cerambycidae) of the West Indies. MS thesis, College Park, Maryland: University of Maryland, 164 pp. Available online at: http://www.lib.umd.edu/drum/handle/1903/3735 [accessed 29.VI.2009]
- Micheli JA, Micheli CJ (2004) Five new Puerto Rican longhorn beetles and other notes on West Indian Acanthocinini (Coleoptera: Cerambycidae: Lamiinae). Journal of the New York Entomological Society 112(1): 18-36.
- Monné MA (2005) Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part II. Subfamily Lamiinae. Zootaxa 1023: 1-759.
- Monné MA, Bezark LG (2009) Checklist of the Cerambycidae, or longhorned beetles (Coleoptera) of the Western Hemisphere. Available online at: http://plant.cdfa.ca.gov/byciddb/ checklists/WestHemiCerambycidae2008-12-31.pdf [accessed 1.V.2009]
- Nearns EH, Branham MA, Bybee SM (2006) Cerambycidae (Coleoptera) types of the Fernando de Zayas Collection, Havana, Cuba. Zootaxa 1270: 1-17.
- Perez-Gelabert DE (2008) Arthropods of Hispaniola (Dominican Republic and Haiti): A checklist and bibliography. Zootaxa 1831: 1-530.
- Say T (1824) Descriptions of coleopterous insects collected in the late expedition to the Rocky Mountains, performed by order of Mr. Calhoun, Secretary of War, under the command of Major Long. Journal of the Academy of Natural Sciences of Philadelphia 3(2): 298-331; 403-462.
- Thomson J (1864) Systema cerambycidarum ou exposé de tous les genres compris dans la famille des cérambycides et familles limitrophes. Mémoires de la Société Royal des Sciences de Liége 19: 1-540.
- Zayas F (1975) Revisión de la familia Cerambycidae (Coleoptera, Phytophagoidea). La Habana, Academia Ciéncias Cuba, 443 pp.