

**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**

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**Abstract**

Five new species of longhorned beetles (Coleoptera: Cerambycidae) from the Dominican Republic are diagnosed, described, and illustrated: *Ataxia hovorei*, *Atimiola rickstanleyi*, *Drycothaea indistincta*, *Eburia pseudostigma*, and *Hormathus giesberti*. In addition, *Hormathus* Gahan 1890 is transferred from Tillomorphini Lacordaire into Ibdionini Thomson, Division V; *Trimoplon* Zayas 1975 is a new synonym of *Hormathus*; and *Hormathus bicolor* (Zayas 1975) is a new combination. A key to the three species of *Hormathus* is provided.

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This study joins Lingafelter and Woodley (2007) as the second in a series of papers that will document and describe the diverse longhorned beetle fauna of the Dominican Republic. These papers will serve as a foundation for a proposed Field Guide of Longhorned Beetles of the Dominican Republic. In this paper we describe five species of Cerambycidae collected there during our expeditions from 2004–2006.

The Dominican Republic, with its varied habitats including both the highest and lowest points in the Caribbean, contains a high diversity of insects as revealed through many recent collecting expeditions. Jim Wappes and Edmund Giesbert made intensive expeditions there in the mid-1980s. Paul Skelley, Bob Woodruff, and Fred Skillman collected intensively around the Filipinas Larimar mine on the Barahona Peninsula in the early 1990s. Teams of students and researchers from Carnegie Museum (led by J. Rawlins and R. Davidson), Harvard University (led by B. Farrell), Florida State Collection of Arthropods (led by M. Thomas), and United States Department of Agriculture (USDA) - Smithsonian (led by S. Lingafelter) have collected thousands of specimens of phytophagous beetles recently. Together with these groups, graduate students from University of New Mexico (E. Nearns), University of Minnesota (L. Chamorro-Lacayo), and University of Maryland (C. Micheli) have made important collections. Add to

this the important collections made over the last decade by M. Ivie (WIBF), and the result is a remarkable amount of material that represents an invaluable resource for studies of West Indian Cerambycidae.

Over the last three years the USDA-Smithsonian team has organized intensive collecting expeditions throughout Dominican Republic. In the course of those trips many new species have been collected and other older species have been rediscovered (*e.g.*, Lingafelter and Nearn 2006; Lingafelter and Woodley 2007; Micheli and Nearn 2005). Participating in our last two expeditions was Rick Stanley, an award winning natural history photographer. With his expertise and patience, Rick has documented over 50 species by live photographs—almost all of which have never been photographed before. Some of these photos are included in this paper, and many more will be part of a field guide to the longhorned beetles of the Dominican Republic that is in preparation. This paper is, in part, a tribute to the work of Frank Hovore, but we are pleased to also recognize the contributions of Edmund Giesbert, and species are named for each of them herein. We are also pleased to name a species after Rick for his enthusiasm and dedication to preserving and documenting natural history.

### Materials and Methods

The following collections were examined in the course of this and other research on Cerambycidae of Hispaniola (curators and/or contact persons listed for most). The acronyms are used in the Type Material sections following each species description. Some material from USNM and CMNH, representing the included species, will ultimately be deposited in the DRMC:

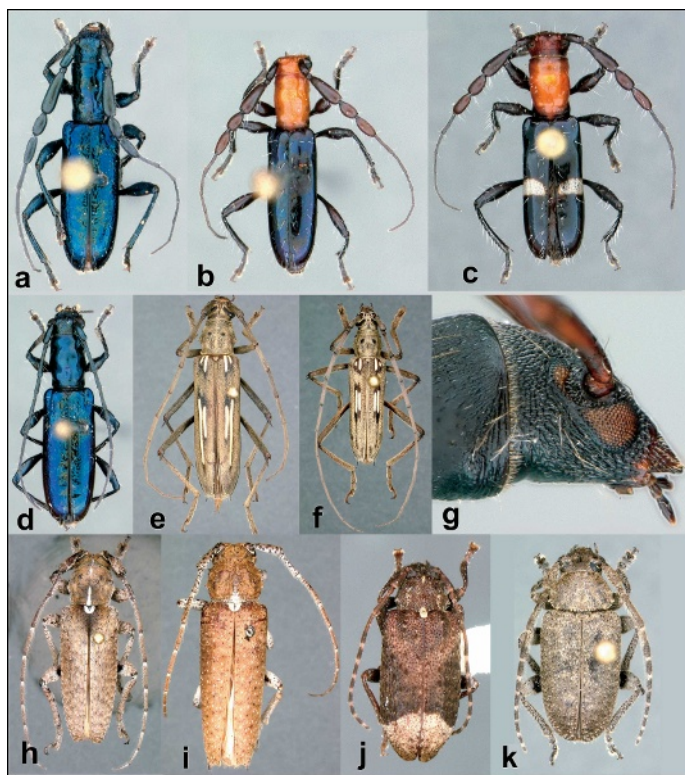
CMNH	Carnegie Museum of Natural History, Pittsburgh, PA, U.S.A. (J. Rawlins, R. Davidson, R. Androw)
DRMC	Museo Nacional de Historia Natural, Santo Domingo, Dominican Republic
EFGC	Edmund F. Giesbert Collection, Gainesville (at FSCA), FL, U.S.A. (M. Thomas)
EMEC	Essig Museum of Entomology Collection, Berkeley, CA, U.S.A. (Cheryl Barr, John Chemsak)
ENPC	Eugenio Nearn Private Collection, Albuquerque, NM, U.S.A.
FDZC	Fernando de Zayas Collection, Havana, Cuba
FSCA	Florida State Collection of Arthropods, Gainesville, FL, U.S.A. (M. Thomas)
JCPC	Julio and Charyn Micheli Private Collection, Ponce, Puerto Rico, U.S.A.
JEWC	James E. Wappes Private Collection, San Antonio, TX, U.S.A.
MCZC	Museum of Comparative Zoology, Harvard University, Cambridge, MA, U.S.A. (B. Farrell)
RHTC	Robert H. Turnbow, Jr. Private Collection, Ft. Rucker, AL, U.S.A.
USNM	National Museum of Natural History, Smithsonian Institution, Washington, DC, U.S.A. (S. Lingafelter)
WIBF	West Indian Beetle Fauna Project, Bozeman, MT, U.S.A. (M. Ivie)

Label redundancy among paratypes is minimized by not repeating identical localities within a species treatment in Material Examined sections. Holotype label data are verbatim, and placed in quotes.

### *Hormathus* Gahan, 1890

(Figs. 1a–d)

Transferred to Ibidiionini, Division V, from Tillomorhini (revised tribal placement)



**Fig. 1.** a–f. New species of Cerambycidae from Dominican Republic, along with similar taxa: **a)** *Hormathus giesberti* Lingafelter & Nearn, male; **b)** *Hormathus bicolor* (Zayas), male; **c)** *Hormathus cincitellus* Gahan, male; **d)** *H. giesberti* Lingafelter & Nearn, female; **e)** *Eburia pseudostigma* Lingafelter & Nearn, female; **f)** *Eburia stigma* (Olivier), male; **g)** *Tillomorpha lineoligera* Blanchard, lateral view of head showing coarsely faceted eye; **h)** *Ataxia hovorei* Lingafelter & Nearn, female; **i)** *Ataxia alboscuteolata* Fisher, female; **j)** *Atimiola rickstanleyi* Lingafelter & Nearn, female; **k)** *Drycothaea indistincta* Lingafelter & Nearn, female.

*Trinoplion* Zayas 1975:116. **New synonym.**

*Hormathus bicolor* (Zayas 1975:116). **New combination.**

**Discussion.** Martins (1967) transferred *Hormathus* Gahan into Tillomorphini on the basis of the finely faceted eyes. He also stated that the basal antennomeres that are swollen in males are similar to those of *Pentanodes* Schaeffer, *Tetranodus* Linell, and *Diphyrama* Bates of the Tillomorphini. Examination of specimens of *Hormathus cincitellus* Gahan 1890 (Fig. 1c), the type species (and only current member of that genus [Monné 2005a]), reveals that this genus belongs to Ibidiionini, not Tillomorphini. The elongate, cylindrical prothorax without micropunctuation on the venter or conspicuous dorsal punctures/rugae demonstrate proper affinities to Ibidiionini. Furthermore, the type species of *Tillomorpha* Bates, *T. lineoligera* Blanchard 1851 (Fig. 1g), has very coarsely faceted eyes

(unlike many other tillomorphines), so this character can be used neither as a tribal-defining feature nor as a basis to transfer *Hormathus* to that tribe. The posteriorly closed procoxal cavities, the modified swollen basal antennomeres in males (with the fourth antennomere much shorter than the third and fifth), and the eyes without distinct upper eye lobes demonstrate affinities to Ibidionini, Division V of Martins (1970). Into this division Martins (1967) placed a species, *Hadroibidion pullum* (Martins 1962), that he originally had placed in *Hormathus*. A color habitus photograph of the holotype was provided by Monné *et al.* (2006). *Hormathus pullum* differs from *H. cinctellus* in having upper eye lobes and having nearly fused antennomeres 10 and 11. It shares with *H. cinctellus* closed procoxal cavities, and absence of punctation on the pronotum. Martins and Napp (1986) described *Hadroibidion vulgare* Martins & Napp 1986, however it has unfused antennomeres 10 and 11. They recognized that their decision altered the generic diagnosis. *Hadroibidion* species should be examined carefully to assess the potential need to synonymize that genus with *Hormathus*, but that is beyond the scope of this research.

Using the key in Martins (1970:881), *H. cinctellus* fits the couplet containing *Xalitla* Lane and *Opsibidion* Martins (couplet 3). It differs from *Xalitla* in not having punctation throughout the body (an atypical feature of Ibidionini), and it differs from *Opsibidion* in having rounded elytral apices (an outer spine is present in *Opsibidion*).

Zayas (1975) erected the genus *Trinoplon* for a new species, *T. bicolor* (Fig. 1b), in Cuba. This genus was characterized by the smooth, subcylindrical and impunctate pronotum, closed procoxal cavities posteriorly, and swollen scape and antennomeres 3–5. These are characters that are consistent with *Hormathus*, with which we synonymize *Trinoplon*. *Hormathus bicolor* (Zayas 1975) has uniformly metallic blue elytra (sometimes slightly orange at base). *Hormathus cinctellus* has mostly black elytra with a red and blue hue, not metallic as in *H. bicolor*, and has a post-medial transverse ivory macula extending from the outer margin to near the suture. In the course of our research in the Dominican Republic, a third species of *Hormathus* was found and is described below. This is followed by a key to the three species of *Hormathus*.

### ***Hormathus giesberti* Lingafelter & Nearn, new species**

(Figs. 1a, d)

**Description.** Small size, 4.5–8.5 mm long; 1.0–1.5 mm wide at humeri; integument dark metallic blue with legs and antennae less metallic, and darker. Head with shallow interantennal tubercle region, evenly concave between; tubercles only weakly elevated. Head (including antennal tubercles) coarsely punctate dorsally (contiguous and forming transverse rows on occiput of females), mostly impunctate ventrally. Head glabrous except for few scattered long hairs (one on frons above base of mandible on each side; one behind antennal tubercle on each side; and two on each side of gula). Eye without distinct upper lobe; with a small postero-dorsal notch near insertion of scape. Eye coarsely faceted (about 14 facets at greatest height). Antenna without spines, with inconspicuous vestiture of short, opaque hairs with longer hairs at apex of most antennomeres. Antennae of males extending about 1–2 antennomeres beyond elytra; antennae of females extending to posterior fourth of elytra at most. Antennomeres 3–5 of males greatly swollen, fourth antennomere shortest, remaining antennomeres unmodified. Antennomeres of females not swollen,

fourth shortest. Pronotum cylindrical, mostly glabrous and impunctate (just a few scattered punctures on disk), without distinct calli or tubercles, arched at anterior end, length about 1.5 times width. Prosternal process very narrow between procoxae, strongly expanded at apex, closing procoxal cavities posteriorly. Elytra mostly glabrous, with scattered long, erect hairs and moderately dense, broad, shallow punctures throughout. Elytral apices rounded to subtruncate, vaguely dentiform at suture in some specimens. Scutellum rounded posteriorly, mostly glabrous, without conspicuous punctures. Legs of moderate length, femora clavate, variably pedunculate. Venter mostly glabrous, but with short, white vestiture on episternites. Mesosternum with broad mesocoxal process with lateral extensions into mesocoxae. Fifth sternite of both sexes broadly rounded, without modification.

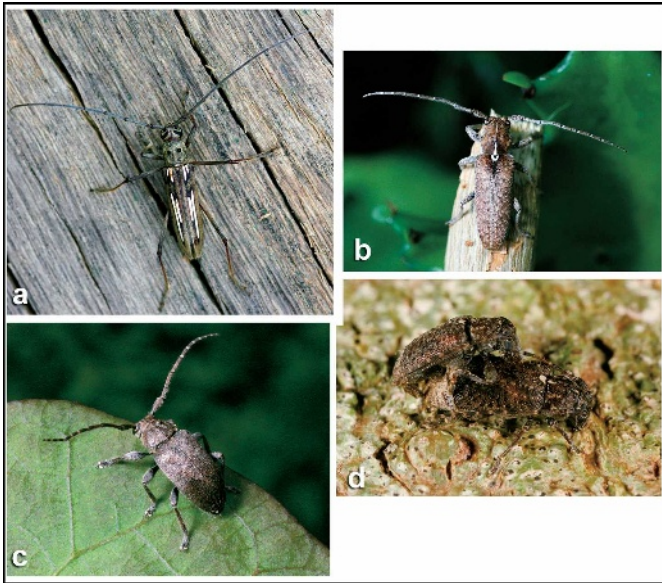
**Etymology.** This attractive species of *Hormathus* is named after Edmund Giesbert (1931–1999) to acknowledge his recognition of this new species and with our appreciation for his prolific contributions to the study of Cerambycidae. Edmund passionately collected and studied Cerambycidae for many decades. His publications, graced with his beautiful artwork, were always eagerly awaited by our community. The epithet is a noun in apposition.

**Discussion.** The uniform metallic blue coloration of this small longhorned beetle makes it readily identifiable. The only other species with which it could be confused is an undescribed species of metallic blue *Psyrassa* Pascoe 1866 from the Dominican Republic, but the latter is readily distinguished by having mesal spines on some basal antennomeres. The eye shape and facets are very similar among *Hormathus giesberti*, *H. bicolor*, and *H. cincellus* and would be more appropriately classified as coarsely faceted, not finely faceted. Cerambycids with finely faceted eyes have over 30 facets in a row along the greatest dorsal-ventral thickness of an average-sized eye. All *Hormathus* specimens examined for each species have 16 or less, a general indicator of large (coarse) ommatidia for average-sized eyes.

At the time this paper was going to press, five additional specimens from the Giesbert collection were found in the Frank Hovore collection by Ian Swift. Ian also located a draft of a Giesbert manuscript describing this species on Frank's computer. Since we had already completed the description independently and without knowledge of Giesbert's draft manuscript (or other specimens), we elected to proceed with our description.

**Type Material.** Holotype, male: "Dominican Republic, La Altagracia, Punta Cana near Eco. Reserve, 0–5 m, at light, SpecID: 7310, Nearn & Lingafelter 25-VI-2005" (USNM). Paratypes, 19 (all Dominican Republic): same data as holotype except sweeping, June 25, 2005, A. Konstantinov (1 male, USNM); San Pedro Province, near Juan Dolio, 13–18 May 1985, J. E. Wappes (1 female, JEW); same data except 4 May 1985, J. E. Wappes (1 male, 1 female, JEW); same data except 5–19 May, 1985, E. Giesbert, coll. (3 males, 2 females, EFGC); 12 km W San Pedro de Macoris, 5–19 May 1985, E. Giesbert (1 male, 1 female, EMEC); La Altagracia Province, Parque Nacional del Este, Guaraguao, 0–5 m, 18°19.568'N, 68°48.500'W, 8 July 2006, N. E. Woodley, sweeping mangrove flowers (1 female, ENPC); same data except 3 July 2006 (1 female, USNM); La Altagracia Province, Parque del Este, 2.9 km southwest of Boca de Yuma, 11 m, 28 May 2004, C. Young, J. Rawlins, J. Fetzner, C. Nunez, semihumid forest near sea, limestone, hand collected, 52144, CMNH 325,152 (1 female, CMNH); La Altagracia Province, Parque del Este, Caseta Guaraguao, 4.4 km southeast Bayahibe, 18°19.59'N, 68°48.42'W, 3 m, 26–27 May 2004, C. Young, J. Rawlins,





**Fig. 2** a–d. Photographs of live specimens of new species from Dominican Republic (all photos by Rick Stanley): a, *Eburia pseudostigma* Lingafelter & Nearn; b, *Ataxia hovorei* Lingafelter & Nearn; c, *Drycothaea indistincta* Lingafelter & Nearn; d, Mating pair of *Atimiola rickstanleyi* Lingafelter & Nearn.

J. Fetzner, C. Nunez, semihumid forest near sea, limestone, canopy trap, sample 51194, CMNH 326,408 (1 female, CMNH); same data, CMNH 330,421 (1 female, CMNH); same data except malaise (not canopy), sample 51184, CMNH 328,619 (1 male, CMNH); La Altagracia Province, Parque Nacional del Este, Guaraguao, 30 May 1992, K. A. Guerrero, F. DelMonte, sweeping (1 female, WIBF); San Cristobal Province, San Cristobal, 4 June 1980, D. Guez., coll. (1 female, WIBF).

**Key to *Hormathus* species**

- 1. Pronotum pale orange or red, contrasting sharply with main color of elytron ..... 2
- 1'. Pronotum dark metallic blue, not contrasting with elytral color (Figs. 1a, d)..... *Hormathus giesberti* Lingafelter & Nearn, new species
- 2(1). Elytron dark metallic blue or purple with post-medial transverse ivory macula (Fig. 1c)..... *Hormathus cincellus* Gahan
- 2'. Elytron dark metallic blue or purple without post-medial macula (Fig. 1b)..... *Hormathus bicolor* (Zayas)

***Eburia pseudostigma* Lingafelter & Nearn, new species**  
(Figs. 1e, 2a)

**Description.** Moderate size, 18–22 mm long; 4–5 mm wide at humeri; integument dark brown, but mostly covered with tawny brown pubescence.

Head with shallow, evenly concave interantennal tubercle region; tubercles only weakly elevated. Head (including antennal tubercles) not conspicuously punctate, mostly covered with tawny brown pubescence above; ventrally glabrous except anterior region of gula, punctate or rugose posterior of lower eye lobes. Pubescence of head short, appressed, except for few scattered long hairs at anterior margin of frons and throughout anterior half of gula. Eyes large, coarsely faceted (about 26 facets at greatest height of lower lobe; 7 facets across width of upper lobe), deeply emarginate at insertion of antenna, lower lobe occupying most of head thickness. Antenna without spines, with vestiture of short, tawny brown pubescence, with longer hairs at apex of most antennomeres and a ventral, mesal fringe of longer hairs throughout. Antennomeres not darkened at apices. Antennae of males surpassing elytra by about 4 antennomeres; antenna of females by about 2 antennomeres. Pronotum length slightly more than width with one acute lateral tubercle on each side behind middle, and one on anterior of disk on each side of middle. Pronotum with large, alveolate punctures, mostly concealed by dense, appressed tawny brown pubescence. Discal tubercles with little pubescence and appearing as black spots from above. Prothorax sides without anterolateral glabrous calli. Prosternum of males with dense, large punctures, mostly concealed by dense tawny pubescence; females densely pubescent, but with small scattered punctures. Prosternal process moderately wide between procoxae, moderately expanded at apex; procoxal cavities open posteriorly. Elytra with dense vestiture of tawny pubescence, densely punctate except for sparsely punctate apical third; with 4 elongate ivory calli: two at base and two at middle. Middle outer callus elongate, about half length of elytron or longer, twice as long as inner callus at middle. Basal calli much shorter, inner callus at base nearly twice as long as outer callus at base. Each pair of calli adjacent to but not touching one another. Pubescence around calli sparse, exposing darker brown integument. Elytral apices strongly bispinose, outer spine approximately twice as long as sutural spine. Scutellum rounded posteriorly, densely tawny pubescent, without conspicuous punctures. Legs elongate, femora narrow, not expanded. Mesal meso- and metafemoral apices very strongly spinose, lateral apices weakly spinose. Profemoral apices rounded. Venter densely tawny pubescent throughout. Mesosternum with broad mesocoxal process with vague lateral extensions into mesocoxae. Fifth sternite of both sexes very broadly rounded, without modification.

**Etymology.** The specific epithet is a noun in apposition referring to the similarity to and possible confusion with the more common and widespread *Eburia stigma* (Olivier 1795).

**Discussion.** The only species with which this can be confused is *Eburia stigma* (Olivier 1795) (Fig. 1f), which differs in having the lateral (outer) middle ivory callus of the elytron much shorter, about one fourth the length of the elytron or shorter; femoral spines shorter (the lateral [outer] meso- and metafemoral spines about twice as long as the mesal spines in *E. stigma*, but often over 3 times longer than the mesal spines in *E. pseudostigma*); the punctuation of the pronotum (especially females) not strongly alveolate; the pronotum about as wide as long; the prothorax with a distinct anterolateral glabrous callus on each side; and the antennomeres distinctly darkened at the apices.

**Type Material.** Holotype, male: "Dominican Republic, La Altagracia Province, Punta Cana near Ecological Reserve, 0–5 m, UV light, SpecID: 6822, 29-VI-2005, Nearn & Lingafelter" (USNM). Paratypes (6, all Dominican Republic, La Altagracia Province, unless otherwise specified): same data as holotype except 1

July 2006, Nearns & Lingafelter (1 female, ENPC); El Veron, road to Hoyo Azul 25–40 m, 18°33.805'N, 68°26.543'W, 7 July 2006, S. Lingafelter (1 female, USNM); same data except beating, Nearns & Lingafelter, 26 June 2005 (1 female, ENPC); Parque del Este, 2.9 km southwest Boca de Yuma, 18°21.51'N 68°37.05'W, 11 m, 28 May 2004, J. Rawlins, C. Young, C. Nunez, J. Fetzner, semihumid dry forest, limestone, UV light, sample 52114, specimen number CMNH-397,262 (1 male, CMNH); Parque del Este, Caseta Guaraguao, 4.4 km southeast Bayahibe, 18°19.59'N, 68°48.42'W, 3 m, 26–27 May 2004, J. Rawlins, C. Young, C. Nunez, J. Fetzner, semihumid forest near sea, limestone, UV light, sample 51114, specimen number CMNH-404,450 (1 female, CMNH); Barahona Province, 5 km northwest Barahona Ag. Fl. Stn. 29–30 June 1978, R. E. Woodruff, G. B. Fairchild, at blacklight trap (1 female, WIBF).

*Ataxia hovorei* Lingafelter & Nearns, new species

(Figs. 1h, 2b)

**Description.** Moderate size, 16–19 mm long; 5 mm wide at humeri; integument dark brown, mostly obscured by mixture of tawny and white pubescence. Head with broad interantennal tubercle region, flat between moderately projecting antennal tubercles. Head (including antennal tubercles) sparsely punctate, mostly covered with appressed tawny pubescence and sparse, erect black hairs on frons and eye margins. Head with narrow, longitudinal line of dense, white pubescence at middle of occiput, sometimes extending between upper eye lobes. Eyes of moderate size, coarsely faceted (about 14 facets at greatest height of lower lobe; 5 facets across greatest width of upper lobe), deeply emarginate at insertion of antenna, lower lobe occupying about one-half of head thickness. Antenna without spines, with vestiture mixture of short, tawny brown and white pubescence, with fringe of longer hairs along mesal and ventral margins, and scattered more sparsely throughout and at apices of antennomeres. Basal one-fourth of most antennomeres annulate with white pubescence. Scape with sparse, glabrous punctures and a weak cicatrix. Antennae of both sexes similar in length and form, extending 1–3 antennomeres beyond elytral apices. Pronotum slightly broader than long with three small, blunt tubercles on each side (one at middle, one above and slightly anterior to middle of side, one just behind anterior margin at side) and two small, mostly glabrous, tubercles on disk, one on each side of and anterior to middle. Pronotum with sparse punctures, mostly obscured by vestiture of tawny pubescence. Pronotum with a broken, median longitudinal line of dense, bright white pubescence. This line extending from scutellum almost to center of disk, continuing into line on occiput of head. Prosternum densely covered with tawny and white pubescence. Prosternal process broad between procoxae, strongly expanded at apex, closing procoxal cavities posteriorly. Elytra with dense vestiture of appressed tawny and white pubescence, mostly in narrow, alternating longitudinal rows. Elytral margins and suture with scattered suberect, stiff, black hairs. Punctures sparse, widely separated, mostly in longitudinal rows, more conspicuous at basal half of elytra. Elytral apices strongly truncate, weakly oblique. Scutellum rounded posteriorly, broadly margined with dense, white pubescence, but glabrous at middle and anterior margin. Legs moderate in length, densely covered in tawny and white pubescence; femora clavate. Metatibia of males arcuate along dorsal margin and thickened, approximately as thick as base of metafemur; metatibia of females unmodified, nearly straight, much narrower than base of metafemur. Dorsolateral margin of mesofemur with row of tawny,



stiff hairs. Venter densely pubescent throughout, with greater proportion of white hairs than tawny. Mesosternum with broad mesocoxal process without lateral projections into mesocoxae. Fifth sternite of both sexes truncate, broadly impressed at middle of apical third in females.

**Etymology.** This beautiful species of *Ataxia* is named after Frank Hovore (1945–2006) with appreciation for his contributions to the study of Cerambycidae. Frank was a tireless colleague with a profound enthusiasm for longhorned beetles. The cerambycid community will miss Frank greatly. The epithet is a noun in apposition.

**Discussion.** The only species with which this can be confused are *Ataxia alboscuteolata* Fisher 1926 (Fig. 1i) and *Ataxia spinipennis* (Chevrolat 1862). We have examined the types or type photographs of both species and they are similarly robust and share with *A. hovorei* the laterally multituberculate pronotum, dorsal color, and scutellum and postmedial pronotum with bright white pubescence. *Ataxia alboscuteolata* and *A. spinipennis* differ in having bright white pubescence with numerous glabrous spots on the femora and venter (only few, if any glabrous spots are present in *A. hovorei*, and the pubescence is mottled, not bright white); in having the scape and basal antennomeres with numerous, large, glabrous spots; in lacking a thin, longitudinal line of white pubescence at anterior middle of the pronotum and middle of the occiput (present in *A. hovorei*); in having on the elytra, uniformly orange pubescence, interrupted by speckled small white patches instead of vague and narrow alternating longitudinal orange and white lines of pubescence as in *A. hovorei*; and in having the outer elytral apices with a spine (truncate in *A. hovorei*). *Ataxia haitiensis* Fisher 1932, to which this species is only marginally similar, is much smaller and narrower, has a complete median longitudinal line of white pubescence on the pronotum, has the pronotum without lateral tubercles, and has strongly, obliquely truncate elytral apices. Color habitus photographs of the holotypes of *A. alboscuteolata* and *A. haitiensis* were provided by Lingafelter and Nearn (2004).

**Type Material.** Holotype, male: "Dominican Republic, La Altagracia Province, Punta Cana near Ecological Reserve, 0–5 m, 18°30.477'N, 68°22.499'W, 2–7 July 2005, S. Lingafelter" (USNM). Paratypes (9): (same data as holotype unless otherwise specified): (1 female, USNM); 5 July 2005, beating (1 female, WIBF); Barahona Province, 11 km south Barahona, May 6–17, 1985, E. Giesbert, Coll. (2 females, 1 male, EFGC); same data except 15–17 May 1985, J. E. Wappes (1 female, JEW); La Altagracia Province, Boca de Yuma, 3–20 m, beating, Nearn & Lingafelter 27 June 2005 (1 female, 1 male, ENPC); Peravia, 12 km southeast Rio Ocoa, 9 July 1996, Coll. M. C. Thomas (1 female, FSCA).

#### *Atimiola rickstanleyi* Lingafelter & Nearn, new species

(Figs. 1j, 2d)

**Description.** Very small size, 3–5 mm long; 1.4–2.1 mm wide at humeri; integument mottled light and dark brown and black except for uniformly pale brown at apical third of elytra and entire scutellum. Integument covered with moderately dense, tawny appressed pubescence. Head with broad, nearly flat interantennal tubercle region, antennal tubercles only slightly projecting. Head throughout with dense, deep punctures, covered with sparse appressed tawny pubescence (not obscuring surface) and sparse, long, erect, mostly pale hairs on frons and eye margins. Eyes average in size, coarsely faceted (about 12 facets at greatest height of lower lobe; 6 facets across greatest width of upper lobe), deeply

emarginate at insertion of antenna, lower lobe occupying a little less than one-half of head thickness. Antenna 11-segmented, without spines, with vestiture mixture of short, tawny brown and white pubescence, with sparse, stiff, suberect hairs along most antennomeres. Antennomeres 3–11 with basal one-fourth to one-third distinctly annulate with pale pubescence. Scape with small, dense, confluent punctures throughout. Antennae of both sexes similar in length and form, just surpassing elytral apices in male, and about as long as body in female. Third and fourth antennomeres longer than scape, fourth distinctly longer than third, slightly curved mesally, and about two times length of each successive antennomere. Antennomeres 5–11 short and of similar length to one another. Pronotum 1.2 to 1.4 times as broad as long; an acute, post-medial and posteriorly directed lateral spine on each side; distinctly narrowed at base behind tubercle; width of pronotum at base about two-thirds width of elytral base; three vaguely defined dorsal calli, two anteromedially, and one medially. Pronotum densely covered with large, deep punctures, mostly separate from each other; with sparse vestiture of pale or tawny pubescence, not obscuring surface, but with denser pubescent areas around lateral tubercles, adjacent to scutellum, and anteromedially. Prosternum with punctures and pubescence similar to pronotum. Prosternal process moderately broad between procoxae, strongly expanded at apex, closing procoxal cavities posteriorly. Procoxal cavities widely open laterally at proepimeron. Elytra with mottled light and dark brown integument, with apical third very pale and distinctly, arcuately delineated. In some specimens, dark spots form 2–3 rows at basal half; in some specimens a pale, reddish-brown arcuate band extending from humeri to antemedial suture. Elytral surface covered with moderately dense vestiture of appressed tawny and white pubescence, but not concealing surface. Elytral surface with sparse, evenly distributed, longer, semiappressed bicolored hairs, dark at base, white at apex. Punctures dense, deep, coarse, mostly separate; similar in size, shape, and density to those of pronotum. Punctures much more conspicuous on basal two-thirds of elytra. Elytral apices narrowly rounded. Scutellum subtruncate posteriorly, broadly covered with dense off-white pubescence. Legs moderate to short in length, femora only attaining base of fifth ventrite; with sparse pubescence, including longer, appressed bicolored hairs (dark at base, white at apex); femora clavate. Venter moderately pale pubescent throughout, not obscuring surface which has punctures of slightly smaller size, shallower and more densely distributed than those on dorsal surface. Mesosternum with moderately broad mesocoxal process, less than half as wide as mesocoxa, and without lateral projections into mesocoxae. Ventrites one and five very long, each longer than 2–4 combined, which are each short, and similar in length. Fifth ventrite of female with a short, longitudinal groove at middle of base (absent in males). Apex of fifth ventrite sinuate in females, broadly rounded in males. Parameres of males nearly always slightly protruding and visible in ventral aspect.

**Etymology.** This species is named after Rick Stanley, BBC-Shell Young Wildlife Photographer of the Year 2006, who was a great companion and the expedition photographer from 2005–2006. The epithet is a noun in apposition.

**Discussion.** The tribe Desmiphorini is a heterogeneous assemblage of genera in need of phylogenetic analysis. *Atimiola rickstanleyi* could fit well into *Euryestola* Breuning 1940, currently containing seven South American species. However, according to Galileo and Martins (1997), *Euryestola* are characterized as having appendiculate tarsal claws (those of *A. rickstanleyi* are simple), justifying the placement of that genus into Calliini. Despite this fundamental difference, *A.*

*rickstanleyi* is rather similar to *Euryestola morotinga* Galileo and Martins 1997. Differences other than the simple claws include the antennomeres with evenly pale annulations at the basal third to half (antennomeres 5, 7, and 9 without annulae and 8 and 10 completely pale in *E. morotinga*), and the apical third of the elytra uniformly pale (more pronounced in females) (diffusely and incompletely pale in *E. morotinga*). The South American genera *Pseudestola* Breuning 1940 and *Euestola* Breuning 1943 of Desmiphorini also include species similar to *A. rickstanleyi*. These genera were reviewed in Martins and Galileo (1997). However, like *E. morotinga*, the antennomeres of all species in these genera are not uniformly annulate, and no species have the apical third of the elytra abruptly paler than the rest.

*Atimiola* was proposed by Bates (1880). He indicated that the majority of characters resemble those of *Estola* Fairmaire and Germain 1859, but the acutely spined pronotum and third antennomere shorter than fourth, among others, distinguished it from that genus. He further defined *Atimiola* as having the pronotum gradually narrowed anteriorly from the postmedial lateral spine and sinuate posterior to the spine—characters which *A. rickstanleyi* possesses. Our examination of *Atimiola guttulata* Bates 1880, the type species, further shows that both species possess elongate ventrites 1 and 5 whereas 2–4 are much shorter. Females of both species have a postmedial longitudinal impression of sternite 5 that is absent from examined *Estola* species, including the type, *Estola hirsuta* Fairmaire and Germain 1859, and *Estola attenuata* Fisher, 1926. Both species of *Atimiola* have pronota similar in proportions, the presence of vague dorsal calli, and punctuation. This combination of characters justifies placement of *A. rickstanleyi* in that genus. *Atimiola rickstanleyi* differs from *A. guttulata* in having the apical third of the elytra distinctly pale and arcuately delineated from the remainder in most specimens (in *A. guttulata* it is only slightly, more noticeably paler and not distinctly margined); in having mostly dark brown to black integument, especially on the legs and head (reddish brown in *A. guttulata*); and by having only sparse, longer semiappressed bicolored hairs present on the elytra (these longer subdepressed hairs are much more densely distributed and mostly unicolorous in *A. guttulata*). Furthermore, *A. guttulata* is known only from Central America while *A. rickstanleyi* is Hispaniolan.

**Type Material.** Holotype, female: “Dominican Republic, Pedernales Prov., PN Sierra de Baoruco, Las Abejas, 1150 m, 18°09.011'N, 71°37.342'W, beating 17 July 2006, Steven W. Lingafelter” (USNM). Paratypes, 111 (all from Dominican Republic, Pedernales Province unless otherwise specified): same data as holotype (3 males, USNM); 25 km N of Cabo Rojo, 18°06.769'N, 71°37.245'W, 679 m, 15 July 2006, Steven W. Lingafelter, beating (1 female, USNM); same data except 10 July 2004, day collecting, Steven W. Lingafelter (1 male, USNM); Parque Nacional Sierra de Baoruco, Las Abejas, 1150 m, 18°09.011'N, 71°37.342'W, blacklight, night beating, 11 July 2004, Steven W. Lingafelter (4 males, 1 female USNM); same except Charyn J. Micheli (3 males, 3 females, JCPC); same except (1 male, 1 female, JEWG); same data except beating tree fall, 18 June 2005, Nearn & Lingafelter (1 male, ENPC); 25 km N. Cabo Rojo, 700 m, 10 July 1996, Coll. M. C. Thomas (1 male, FSCA); 3.3 km northeast Los Arroyos, 18°15'N, 71°45'W, 1450 m, 16–18 July, 1990, L. Masner, J. Rawlins, C. Young, wet montane forest sweep samples, CMNH specimen number 333,216 (1 female, CMNH); 24 km north Cabo Rojo, 610 m, 21 August 1988, wet forest at light & night beating, M. Ivie, Philips & Johnson (1 female, 1 male WIBF); same except 19 August, 1988 (1 female, 1 male, WIBF); same except 26 August 1988, M. Ivie,

Philips, & Johnson (1 female, WIBF); Parque Nacional Sierra de Baoruco, Las Abejas, 1240 m, 18°09.023'N, 71°37.387'W, 9 August 1999, M. A. Ivie (4 females, 2 males, WIBF); same except 8 August 1999, Ivie & Guerrero at light (1 male, WIBF); same except 22 July–9 August 1999, malaise trap, Ivie (1 male, WIBF); Haiti, Morne Guimby, 22 km. SW Fond Verrettes, 19 July 1956, 6500', B. & B. Valentine (38 females; 34 males, WIBF); Haiti, Dept. Sud-Oueste, Parc National la Visite, Morne, la Visite, south slope, 2040–2150 m, 23 May 1984, Coll. M. C. Thomas (2 males, FSCA); same except 2100 m, 12 May, 1984 (2 females, 1 male, FSCA); same except Morne, d'Enfer, Massif de La Salle, 15 May, 1984 (2 females, FSCA); same except *ca.* 1 km south Roche Plat, 22 May, 1984 (1 female, FSCA).

***Dryothaea indistincta* Lingafelter & Nearn, new species**

(Figs. 1k, 2c)

**Description.** Small size, 7–9.5 mm long; 4–5 mm wide at humeri; integument mottled light and dark brown and black (appearing uniformly gray-brown to naked eye) except for uniformly tawny scutellum. Integument covered with moderately dense coating of tawny appressed pubescence. Head with broad, nearly flat interantennal tubercle region, antennal tubercles only slightly raised. Head with a faint, median, shallow groove just beyond vertex. Head throughout with moderately dense, shallow punctures and covered with dense appressed tawny pubescence (in places obscuring surface) and sparse, long, erect, mostly pale hairs on frons, vertex, and eye margins. Eyes average in size, coarsely faceted (about 14 facets at greatest height of lower lobe; about 6 facets across greatest width of upper lobe), deeply emarginate at insertion of antenna, lower lobe comprising about one-half of head thickness. Narrowest point between upper and lower lobes about width of 2 facets. Antenna 11-segmented, without spines, with vestiture mixture of short, tawny brown and white pubescence, with sparse, stiff, suberect hairs along most antennomeres. Antennomeres 4–11 with basal one-fifth to one-fourth distinctly annulate with pale pubescence. Scape with small, dense, confluent punctures throughout. Antennae of both sexes similar in length and form, just surpassing elytral apices in male, and slightly shorter than body in female. Third antennomere about 1.3 times as long as scape, fourth about as long as scape, and nearly twice as long as fifth. Antennomeres 5–11 short and gradually decreasing in length. Pronotum much broader than long (1.3 times as broad as long); an acute, post-medial and posteriorly directed lateral spine on each side; distinctly narrowed at base behind tubercle; width of pronotum at base about three-fourths width of elytra at base. Pronotum densely covered with small, shallow punctures, mostly separate from each other; with moderately dense vestiture of pale or tawny pubescence, in places obscuring surface. Prosternum with punctures and pubescence similar to pronotum. Prosternal process moderately broad between procoxae, strongly expanded at apex, closing procoxal cavities posteriorly. Elytra with mottled light and dark brown integument (appearing mostly uniform gray-brown to naked eye). Elytral surface covered with dense vestiture of appressed tawny and white pubescence, in places concealing surface. Elytral surface with moderately dense, regularly placed, longer, semiappressed bicolored hairs, dark at base, white at apex, arising from deeper punctures. Punctures moderately dense, deep, mostly separate. Elytral apices narrowly rounded. Scutellum subtruncate posteriorly, broadly covered with dense off-white pubescence. Legs moderate to short in length, femora

extending to base of fifth ventrite; with moderately dense pubescence, including longer, appressed bicolored hairs (dark at base, white at apex); femora clavate. Venter moderately pale pubescent throughout, in places obscuring surface which has punctures of slightly smaller size, more shallow and more densely distributed than those of dorsal surface. Mesosternum with moderately broad mesocoxal process, about as wide as mesocoxa, and without lateral projections into mesocoxae. Ventrite 1 as long as 2–4 combined, which are each short, and of similar length. Fifth ventrite about as long as 2–3 combined. Fifth ventrite of female with a short, longitudinal groove at middle of base (lacking in males). Apex of fifth ventrite sinuate in females and subtruncate in males.

**Etymology.** This species epithet is a participle that refers to the uniform, ordinary appearance of the species, without any maculae, bright colors, or striking morphological features.

**Discussion.** The tribe Calliini contains many species that greatly resemble those of Desmiphorini, however, the presence of appendiculate tarsal claws in Calliini readily distinguishes them. Like Desmiphorini, the generic limits in Calliini are somewhat diffuse, and this tribe could benefit from a phylogenetic analysis that would also serve to better define (and perhaps synonymize) some genera.

Martins and Galileo (1990) reviewed the South American species of *Drycothaea* and provided a diagnosis for the genus. Based on their study, we place this new species in that genus. Characters supporting our decision include: presence of appendiculate tarsi; pronotum with an acute, post-medial and posteriorly directed lateral spine on each side; antennal scape without an apical cicatrix; third antennomere longer than the scape; elytra convex, without a longitudinal carina; and rounded elytral apices. The only other species of *Drycothaea* known from the Caribbean is *Drycothaea guadeloupensis* Fleutiaux and Sallé 1889, recorded from Guadeloupe and Dominica, Lesser Antilles (Chalumeau and Touroult 2005; Monné 2005b; Monné and Hovore 2005). *Drycothaea guadeloupensis* differs from *D. indistincta* by having more sparse pubescence dorsally exposing most punctures, especially on the pronotum (dense and mostly uniform gray-tawny pubescence in *D. indistincta*); by having the pronotum only slightly broader than long (much broader than long in *D. indistincta*); and by having the antennae more broadly annulate at the base of most antennomeres (narrowly annulate in *D. indistincta*).

**Type Material.** Holotype, male: “Dominican Republic, La Altagracia Province, Punta Cana near Ecological Reserve, 0–5 m, 18°30.477'N, 68°22.499'W, 5 July 2006, S. Lingafelter, cut wood at night” (USNM). Paratypes, 62 (all from exact locality as holotype unless otherwise specified): 5 July 2006, on cut wood at night, S. Lingafelter (4 males, 3 females, USNM); 7 July 2005, S. Lingafelter, attracted to lights (3 males, 5 females USNM); 6 July 2006, S. Lingafelter, at light (2 males, 1 females, USNM); 3 July, 2006, at light (1 female, USNM); 1 July 2006, N. E. Woodley, at light (1 male, USNM); 21 July 2006, S. Lingafelter, beating (1 male, USNM); 30 June 2005, S. Lingafelter, attracted to lights (1 male, USNM); 19–20 July 2006, S. Lingafelter, at light (1 male, 2 females, USNM); 12–13 June 2005, N. Woodley, day collecting (1 male, USNM); 12–14 June 2005, S. Lingafelter (1 male, USNM); 14 June 2005, S. Lingafelter (1 male, USNM); 30 June 2005, at light (2 females, USNM); 22 July 2006, N. E. Woodley, at light (1 male, USNM); 2–7 July, 2005, attracted to lights, S. Lingafelter (8 males, 2 females, USNM); same data (1 male, 1 female, WIBF); same data (1 male, 1 female, FSCA); same data (1 male, 1 female, JEWG); same data except N. Woodley (4 males, 3 females, USNM); UV light, 30 June 2005, Nearn & Lingafelter (1 female, ENPC); 12 June



2005 (1 male, ENPC); 29 June 2005 (1 male, ENPC); La Altagracia Province, El Veron, Hoyo Azul, 18°33.610'N, 68°26.881'W, 25–40 m., dead logs, 22 July 2004, S.W. Lingafelter (1 female, USNM); same data except beating, Nearn & Lingafelter 26 June 2005 (1 female, ENPC); same data except 30 June 2005 (1 male, ENPC); Azua, 24 August, 1992, D. S. Sikes & J. Brodzinsky (1 male, WIBF); La Altagracia Province, Parque del Este, Caseta Guaraguao 4.4 km southeast Bayahibe, 18°19.59'N, 68°48.42'W, 3 m, 26–27 May 2004, C. Young, J. Rawlins, J. Fetzner, C. Nunez, semihumid forest near sea, limestone, UV light, sample 51114, CMNH 401,088 (1 female, CMNH); Monte Cristi, 5 km NNE Botoncillo, 50 m, 19°46'N, 71°24'W, 29–30 November 1992, R. Davidson, M. Klingler, S. Thompson, J. Rawlins, arid thornscrub, CMNH number 331,209 (1 male, CMNH).

### Acknowledgments

We thank the Kheel/Stamley Family (Theodore Kheel, Jane Kheel Stamley, Rick Stamley, and Jake Kheel) for their generosity in providing accommodations at Casa de Sueños, adjacent to the Punta Cana Ecological Reserve, Dominican Republic, where some specimens were collected. We also thank Norman Woodley, Alexander Konstantinov, Charyn Micheli, and Lourdes Chamorro-Lacayo for their participation on the expeditions and collecting some of the type series. Rick Stamley joined us on two expeditions and provided excellent live photographs of most of the included species. We thank all the curators and collection managers listed in the Materials and Methods, but especially the following: Michael Thomas and Paul Skelley (FSCA, EFGC), Robert Davidson and Bob Androw (CMNH), James Wappes (JEWG), Michael Ivie (WIBF), Roy Morris (RFMC), and Charyn Micheli (JCPC). Kelvin Guerrero and Daniel Perez-Gelabert provided consultation and logistical support during our expeditions. Thanks to the Department of Investigaciones de la Subsecretaria de Areas Protégidas y Biodiversidad for permits to conduct our research. We thank James Wappes, Kelly Miller (University of New Mexico), Miguel Monné (Museu Nacional, Universidade Federal do Rio de Janeiro), John Brown (USDA), and Allen Norrbom (USDA) for reviewing this manuscript. Finally, we thank Ian Swift (Placerita Canyon Natural Area, Newhall, CA) for locating the Giesbert specimens of *Hormathus* in Frank Hovore's collection.

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(Received 30 April 2007; accepted 30 May 2007. Publication date 26 July 2007.)