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NEW WEST INDIAN CERAMBYCIDÆ (COLEOPTERA). SUBFAMILY LAMIINÆ

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Through the kindness of The American Museum of Natural History, I have been enabled to study the material of the subfamily Lamiinæ of Cerambycidæ in that museum in connection with the material in the United States National Museum. The following new species are all represented in the American Museum collection by types, allotypes,^{*} or paratypes.

Ataxia variegata, new species

MALE.—Elongate, slightly attenuate posteriorly, castaneous, rather densely clothed with recumbent pale brown pubescence, which partially conceals the punctures, especially on the head and pronotum, where the pubescence is slightly more yellowish brown; on the elytra are also numerous small spots of white pubescence irregularly placed, and with a few longer semi-erect hairs arising from the punctures; antennæ sparsely pubescent, the joints narrowly annulate at base, and feebly ciliate beneath; underside more sparsely clothed, the pubescence paler than above, and with numerous long, slender, erect whitish hairs arising from the punctures.

Head finely and densely punctate, with a few very coarse punctures intermixed, the front slightly wider than long, feebly convex, with an obsolete longitudinal groove at the middle, and slightly concave between the antennal tubercles. Antennæ about as long as the entire body; first joint robust, oblong, truncate at apex, with a distinct cicatrix, and shorter than the third joint; third and fourth joints subequal, and the following joints gradually decreasing in length. Pronotum only slightly wider than long, and the base and apex about equal in width; sides nearly parallel, with a very feeble obtuse tooth at middle, and a more or less distinct obtuse nodule between it and the apical angle, but not forming a distinct tooth like in the genus *Proecha*; surface uneven, sparsely, very coarsely and irregularly punctate. Scutellum triangular, and rounded behind. Elytra not quite four times as long as pronotum, and distinctly wider than it at base; humeral angles broadly rounded; sides feebly obliquely attenuate from base to apical sixth, then more strongly attenuate to the tips, which are conjointly broadly, but very feebly emarginate; surface regularly convex, feebly longitudinally sulcate, and sparsely, coarsely and irregularly punctate. Prosternum feebly declivous in front, narrow between the anterior coxæ, behind which it is nearly vertical, and broadly triangularly expanded. Mesosternum vertical in front, and triangular between the middle coxæ. Metasternum with a rather broad, feebly impressed longitudinal groove at the middle. Abdomen beneath sparsely, finely and

¹Bureau of Entomology, United States Department of Agriculture.

irregularly punctate, the punctures more distinct on the first segment; last segment broadly, but only feebly arcuately emarginate at apex. Femora moderately robust, the anterior pair slightly more swollen than the middle and posterior ones, the latter extending to the anterior margin of the third abdominal segment. Anterior and middle tibiae rather slender, straight, and subcylindrical, the former with a distinct sinus; posterior pair rather broad, feebly arcuate, and with the sides parallel. Tarsi narrow and not broadly expanded. Length, 11.5 mm.; width, 3 mm.

TYPE-LOCALITY.—Guantanamo, Cuba.

TYPE.—Coll. Amer. Mus. Nat. Hist.

Described from a unique male received from The American Museum of Natural History, which was collected at the type-locality, May 22, 1914, by C. T. Ramsden.

This species resembles *spinicauda* Schæffer in many respects, but can be separated from that species by the pronotum being uneven above, without a glabrous spot on each side near the base, and the elytra not deeply emarginate at apex.

***Leptostylus gundlachi*, new species**

FEMALE.—Form similar to *scurra* Chevrolat, reddish brown, not very densely clothed with a brownish-white pubescence, with an obsolete opalescent tinge and a few dark brown areas; mandibles black; palpi reddish brown, and slightly paler at apex.

Head quadrate between the eyes in front of the antennal tubercles, and nearly flat, angularly depressed between the antennal tubercles, which are rather strongly developed and widely separated, the surface densely clothed with short recumbent yellowish-white pubescence, which conceals the surface, and with a distinct narrow longitudinal groove extending from the epistoma to occiput; eyes small, not very coarsely granulated, deeply emarginate, and separated from each other on the top by about the width of the emargination of the eyes in front, the lower lobes rounded, and the upper lobes smaller and more narrow. Antennae about one and one-fourth times as long as the body, the first four joints feebly mottled with brown and cinereous pubescence, the following joints cinereous, and all the joints feebly annulated with brown at the apex; first joint rather slender, subcylindrical, gradually expanded toward apex, extending to basal fourth of pronotum, and subequal in length to the fourth joint, which is only slightly shorter than the third. Pronotum nearly three-fourths wider than long, and the base and apex about equal in width; sides feebly rounded, only slightly more so medially, without any distinct prominence or tubercle; surface feebly transversely constricted near the base and anterior margin, with a few more or less distinct tubercles on the disk, of which the two antero-median ones are more strongly developed, coarsely and rather densely punctate, irregularly but not very densely clothed with recumbent yellowish-white pubescence, which has a more or less opalescent tinge in certain lights, and not ornated with distinct darker areas. Scutellum triangular, rather acutely rounded behind, and the surface flat and rather densely pubescent. Elytra five-sevenths longer than wide, and two-sevenths wider than the pronotum; humeri not very prominent; sides nearly parallel to middle, then arcuately attenuate to the tips, which are obsoletely obliquely truncate internally; surface nearly even, with a feeble oblique depression, extending from near the humeri

to the suture, finely and irregularly punctate, the punctures rather dense on the basal region, but becoming sparser toward the apex, densely clothed with brownish-white pubescence, which has a slight opalescent tinge in certain lights, with a few obsolete tubercles which are usually clothed with a brownish-black pubescence, and ornated with a narrow transverse zigzag fascia of cinereous pubescence just behind the middle, and behind which there are a few larger, irregular shaped spots of brownish-black pubescence. Beneath finely, densely punctate, and sparsely clothed with cinereous pubescence; tips of tibiae, tarsi and tarsal claws dark brown; prosternal process three-fourths as wide as the coxal cavity; femora not very strongly clavate. Length, 6 mm.; width, 2.75 mm.

TYPE-LOCALITY.—Aibonito, Porto Rico.

TYPE.—Coll. Amer. Mus. Nat. Hist.

PARATYPE.—Coll. U. S. Nat. Mus.

Described from two females received from The American Museum of Natural History and collected by Messrs. H. G. Barber and F. E. Watson at the type-locality, between July 14 and 17, 1914, in connection with the N. Y. Academy of Sciences' Survey of Porto Rico.

This species resembles *scurra* Chevrolat, but it is more convex, the tubercles on disk of pronotum more distinct, the sides more regularly arcuate, and the elytra with the punctures coarser, the pubescence slightly opalescent, and the markings different in their arrangement.

***Leptostylus bahamicus*, new species**

Similar in form to *scurra* Chevrolat, reddish brown, densely clothed with cinereous pubescence, and ornated with a few blackish areas; mandibles black; palpi brown, with the last joint yellow.

Head between the eyes in front of the antennal tubercles about as long as wide, and nearly flat, moderately concave between the antennal tubercles, which are rather strongly developed and widely separated, the surface densely clothed with short, recumbent, cinereous and brownish-white pubescence, which conceals the surface, and with an obsolete longitudinal groove extending from the epistoma to occiput; eyes small, not very coarsely granulated, deeply emarginate, and separated from each other on the top by about the width of the emargination of the eyes in front, the lower lobes as wide as long, and the upper lobes distinctly smaller and narrow. Antennæ one and one-half times as long as the body, the first four joints cinereous and feebly mottled with brown, the following joints cinereous, except the last joint, which is black, the third, and fifth to eleventh joints annulated with dark brown or black; first joint rather robust, subcylindrical, feebly expanded toward apex, extending to middle of pronotum, and about four-fifths as long as the third joint, which is subequal in length to the fourth. Pronotum nearly two times as wide as long, and the base and apex about equal in width; sides rather strongly obliquely expanded from apical angles to basal third, then abruptly arcuately narrowed to near the base, where they are parallel, and without any distinct tubercle or prominence; surface with a feeble transverse apical and basal constriction, nearly even, without any distinct tubercles on disk, the punctuation concealed by the dense, evenly placed white pubescence, and ornated with a few obsolete longitudinal streaks of brown on the disk. Scutellum triangular, rather

acutely rounded behind, and the surface flat and densely pubescent. Elytra three-fourths longer than wide, and only one-fifth wider than the pronotum; humeri rather prominent, and feebly produced forward; sides nearly parallel to apical fourth, then strongly arcuately attenuate to the tips, which are feebly obliquely truncate internally with the exterior angles obtuse but not produced outward; surface rather even, finely, rather densely and irregularly punctate over entire surface, densely clothed with recumbent cinereous pubescence, with a few obsolete brownish streaks toward the apex, with numerous small tubercles covered with cinereous pubescence, and ornated with a narrow, somewhat irregular V-shaped mark of brownish-black pubescence just behind the middle, common to both elytron, with the apex pointed forward, and with a narrow sinuate dark brown vitta along the lateral margin, extending from the middle of the elytron to the humeral angle and then continuing along the side of the pronotum. Beneath finely, densely punctate, and rather densely and irregularly clothed with cinereous pubescence, which gives the surface a mottled appearance; apex of tibiae, tarsi and tarsal claws black; prosternal process about one-half as wide as the costal cavity; femora strongly clavate. Length, 6–8 mm.; width, 2.2–3.2 mm.

TYPE-LOCALITY.—Mangrove Cay, Andros Islands.

OTHER LOCALITIES.—Fresh Creek, Andros Islands; and Bahamas.

TYPE AND PARATYPES.—Coll. Amer. Mus. Nat. Hist.

PARATYPES.—Coll. U. S. Nat. Mus.

Described from seven specimens, three males and four females, received from The American Museum of Natural History. The type (male) and two paratypes were collected at the type-locality during May and June, 1917, by William M. Mann; one paratype was collected at Fresh Creek during May and June, 1917, by the same collector, and three paratypes are simply labeled "Bahamas."

This species resembles *biustus* LeConte, but is more elongate and flattened above, the pubescence more cinereous, and with only a more or less distinct V-shaped brown fascia just behind the middle. In some specimens this brown fascia is scarcely noticeable, and will probably be entirely absent in some examples when a larger series is available for study.

***Leptostylus poeyi*, new species**

Form moderately robust and rather strongly convex, similar to *tuberculatus* Fröl. (*aculifer* Say), dark brown, densely clothed with brownish pubescence, and mottled with darker and paler areas; mandibles black; palpi brownish black, with the tips paler.

Head between the eyes in front of the antennal tubercles about as long as wide and feebly convex, deeply angularly depressed between the antennal tubercles, which are rather strongly elevated and not very widely separated at their base, the surface densely clothed with short recumbent brownish pubescence, concealing the punctuation, and with a narrow longitudinal groove extending from the epistoma to occiput; eyes small, not very coarsely granulated, deeply emarginate, and separated from each other on the top by about two-thirds the width of the emargination of the eyes in front, the lower lobes round, and the upper lobes slightly smaller and more narrow. Antennae slightly longer than the body, the joints to the fifth mottled dark brown and

yellowish white, those beyond yellowish white, and all the joints annulated with dark brown at the apex; first joint rather slender, subcylindrical, extending to middle of pronotum, and slightly shorter than the third joint, which is nearly a half longer than the fourth. Pronotum three-fourths wider than long, and the apex and base about equal in width; sides obliquely expanded from anterior angles to a distinct broad obtuse tubercle at the middle, and parallel at basal fourth; surface with a distinct transverse apical and basal constriction, and five moderately elevated tubercles on the disk, with a few widely scattered punctures and a more distinct row in the basal and apical constrictions, the surface rather densely clothed with yellowish-white pubescence, and ornated with blackish areas as follows: a large spot along lateral margin behind the median tubercle, three small round spots along the base, three small spots along the anterior margin, the exterior ones being strongly elongate, and a similar elongate spot on the three median tubercles. Scutellum triangular, broadly rounded behind, and the surface feebly concave and sparsely pubescent. Elytra three-fifths longer than wide, and one-third wider than pronotum; sides parallel to middle, then arcuately attenuate to the tips, which are narrowly obliquely truncate internally, with the exterior angles rounded; humeri moderately developed, and feebly elevated; surface slightly uneven, feebly obliquely depressed at basal third, rather densely, coarsely and irregularly punctate over entire surface, densely clothed with recumbent brownish-yellow pubescence, which is darker in the post-humeral area, and abruptly, obliquely divided at the elytral declivity by a few irregularly placed black spots, behind which the vestiture is a darker brown, enclosing on each elytron an oblong ring of ochraceous pubescence, the ring very acute posteriorly, and a small, similar colored spot along suture near the apex. Beneath densely, obsoletely punctate, and rather densely clothed with yellowish-white and brownish pubescence, giving the surface a mottled appearance; tibiæ feebly annulated near middle with brown, and the apex, tarsi, and tarsal claws brownish black; prosternal process one-half as wide as the coxal cavity; femora rather strongly clavate. Length, 8-9.5 mm.; width, 3.5-4 mm.

TYPE-LOCALITY.—San Francisco Mountains, Santo Domingo.

OTHER LOCALITIES.—Port-au-Prince, Haiti, and Higueral, Santo Domingo.

TYPE AND PARATYPES.—Coll. U. S. Nat. Mus.

PARATYPES.—Coll. Amer. Mus. Nat. Hist.

Described from four specimens, two males and two females. The type (female) was collected at the type-locality during September, 1905, by August Busck; one male paratype is from Port-au-Prince and a male and female paratype, collected at Higueral, were received from The American Museum of Natural History.

This species is closely allied to *dealbatus* Jacquelin Duval, but the pronotum is more strongly tuberculate on the disk and at the sides, and the elytra more uneven, more densely pubescent, the small tubercles more numerous and distinct, and the markings entirely different.

***Leptostylus antillarum*, new species**

Form similar to *duwali* Fisher, strongly robust and moderately convex above, uniformly reddish brown to brownish black, rather densely clothed with pale brownish pubescence, and ornated with a few darker and paler areas; mandibles black; palpi yellowish brown.

Head quadrate in front of antennal tubercles, and nearly flat, deeply angularly depressed between the antennal tubercles, which are strongly developed and not very widely separated, the surface densely clothed with short recumbent yellowish-white pubescence concealing the surface, and with an obsolete narrow longitudinal groove extending from the epistoma to occiput; eyes small, not very coarsely granulated, deeply emarginate, and separated from each other on the top by about three-fourths the width of the emargination of the eyes in front, the lower lobes rounded, and the upper lobes smaller and narrow. Antennæ about one and one-half times as long as the body, and maculate with brown and cinereous pubescence; first joint rather slender, subcylindrical, gradually expanding toward the apex, extending to basal fourth of pronotum, and subequal in length to the fourth joint, which is slightly shorter than the third. Pronotum four-fifths wider than long, and the base and apex about equal in width; sides moderately constricted near apical angles, strongly arcuately tumid at middle, and parallel at basal fourth; surface with the basal and apical constrictions scarcely indicated, with seven tubercles arranged in two rows on the disk, of which the four exterior ones are feebly developed, and the three median ones strongly elevated with their apex rather acute and glabrous, with a few widely scattered coarse punctures, and a more distinct row along the base and anterior margin; the surface is also rather densely clothed with recumbent yellowish pubescence, which has a more or less greenish tinge, and ornated with two small dark brown spots along the anterior margin, and two similar spots along the base, but the latter are more widely separated. Scutellum triangular, broadly rounded behind, the surface slightly concave and sparsely pubescent. Elytra three-fourths longer than wide, and one-third wider than the pronotum; humeri rather prominent and feebly elevated; sides arcuately rounded, more so apically to the tips, which are arcuately truncate internally, with the exterior angles obtuse and feebly produced; surface somewhat uneven, with an oblique impression extending from near the humeri to suture, and an elongate one along suture at apical third, coarsely, irregularly and rather densely punctate, the punctures becoming sparser and finer toward the apex, rather densely clothed with brownish-yellow pubescence, with irregular rows of small, rather acute tubercles, those in the basal region more strongly developed, and forming a more or less distinct crest near the base, the tubercles covered with longer hairs of about the same color as the surrounding surface, and each elytron ornated with a dark brown spot behind the basal crest, and a narrow transverse arcuate cinereous fascia at apical third, extending to middle of disk and common to both elytron. Beneath nearly smooth, and sparsely, irregularly clothed with yellowish-white pubescence, which gives the surface a more or less mottled appearance; tibiae feebly annulated with brown, and the tarsi and tarsal claws brownish; prosternal process three-fourths as wide as the coxal cavity; femora strongly clavate. Length, 11-12 mm.; width, 5-5.2 mm.

TYPE-LOCALITY.—Culebra Island, Porto Rico.

OTHER LOCALITIES.—Mayaguez, Porto Rico.

TYPE AND PARATYPES.—Coll. U. S. Nat. Mus.

PARATYPE.—Coll. Amer. Mus. Nat. Hist.

Described from five specimens, three males and two females. The type and three paratypes were collected by August Busck at the type-locality during February, 1899; and a male paratype received from The American Museum of Natural History was collected at Mayaguez, Porto Rico, July 21, 1912, by C. W. Hooker on cacao.

Superficially this species resembles *præmorsus* Gahan, but in the latter species the pronotum is not as strongly tuberculate on the disk and has a blackish spot along the lateral margin, the elytra is more even, the dorsal tubercles not as strongly developed, and the transverse cinereous fascia at apical third more angular and margined posteriorly by a distinct brown area.

***Leptostylus cristatus*, new species**

MALE.—Similar in form to *antillarum* Fisher, strongly robust, and moderately convex above, uniformly brownish black above and more reddish beneath, not very densely clothed with a greenish-white pubescence, and feebly mottled with darker and paler areas; mandibles black; palpi dark brown, with the tips paler.

Head quadrate in front of the antennal tubercles, slightly narrower above, and feebly convex, deeply angularly depressed between the antennal tubercles, which are rather strongly developed and not very widely separated, the surface not very densely, but irregularly clothed with short recumbent luteous pubescence, giving it a mottled appearance, and with a deeply depressed narrow longitudinal groove extending from the epistoma to occiput; eyes small, not very coarsely granulate, deeply emarginate, and separated from each other on the top by about two-thirds the width of the emargination of the eyes in front, the lower lobes rounded and the upper lobes smaller and narrow. Antennæ slightly longer than the body, the first four joints mottled brown and yellowish white, the following joints cinereous, and more or less annulated with brown; first joint rather slender, subcylindrical, gradually expanded toward the apex, extending to middle of pronotum, and slightly shorter than the third joint, which is nearly one-half longer than the fourth. Pronotum three-fifths wider than long, and the base and apex about equal in width; sides nearly parallel, feebly constricted near posterior and anterior angles, and with an obtusely rounded prominence at the middle; surface with a distinct transverse basal and apical constriction, and with seven tubercles on the disk arranged in two lines, the five median ones strongly elevated, and rather acute and glabrous at apex, with a few widely scattered coarse punctures, and a more distinct row in the basal and apical constrictions, the surface also irregularly, but not very densely clothed with recumbent yellowish-white pubescence, and with three more or less interrupted brown vittæ extending from the anterior margin to base, one median and one on each side. Scutellum triangular, broadly rounded behind, and the surface feebly concave and sparsely pubescent. Elytra three-fourths longer than wide, and one-third wider than the pronotum; humeri strongly developed and moderately elevated; sides nearly parallel to apical third, then strongly arcuately attenuate to the tips, which are separately narrowly rounded; surface slightly uneven, with a feeble oblique depression extending from near the humeri to the suture, coarsely, irregularly and rather densely punctate, the punctures becoming finer toward the apex, rather sparsely clothed with recumbent greenish-white pubescence, which does not conceal the punctuation, and with numerous irregularly placed tubercles, those on the basal region strongly developed and forming a basal crest, the tubercles rather densely clothed with dark brown and ochraceous pubescence, and each elytron ornated with a dark brown spot on the basal crest, and a few obsolete cinereous streaks on the apical half. Beneath densely,

obsoletely punctate, and rather densely, but irregularly clothed with yellowish-white pubescence, which gives the surface a densely mottled appearance; tibiae strongly annulated with brown near middle and at apex, and the tarsi and tarsal claws more or less brownish; prosternal process two-thirds as wide as the coxal cavity; femora strongly clavate. Length, 10.5 mm.; width, 4.75 mm.

TYPE-LOCALITY.—San Lorenzo, Dominican Republic.

TYPE.—Coll. Amer. Mus. Nat. Hist.

Described from a single male received from The American Museum of Natural History and collected at the type-locality, July 2, 1915, by Mr. F. E. Watson.

This species is distinguished from all other known species of this genus found in the West Indies by its greenish tinge, the elytra with the tips rounded and the surface with a distinct crest near base.

***Trypanidius insularis*, new species**

MALE.—Form broadly elongate and moderately convex; above densely clothed with cinereous, ochraceous and blackish-brown pubescence, and each elytron ornated with a narrow transverse zigzag fascia of cinereous pubescence near apex, in front of which is a narrow arcuate velvety black spot near the suture; beneath rather densely clothed with long recumbent cinereous pubescence, with numerous small spots of more densely placed hairs of the same color.

Head longer than wide, and flat in front, rather broadly concave between the antennal tubercles, which are widely separated and feebly elevated, the surface finely, densely punctate, densely clothed with recumbent brownish-white pubescence, and with a distinct longitudinal groove extending from the epistoma to the occiput; eyes large, not coarsely granulated, deeply emarginate, and separated from each other on the top by about one-half the width of the emargination of the eyes in front, the lower lobes subquadrate, and the upper lobes narrow. Antennae about as long as the body, pale reddish-brown, densely clothed with short recumbent cinereous pubescence, slightly darker apically, and not ciliate beneath; first joint slender, subcylindrical, gradually expanded to apex, extending nearly to base of pronotum, and nearly one-fourth longer than the third joint, which is slightly longer than the fourth. Pronotum five-sevenths wider than long, and slightly narrower at base than apex; sides obliquely expanded from apical angles to a short, acute tubercle just behind the middle, then obliquely narrowed to basal fourth, from where they are parallel to the base; surface moderately convex, with a deep depression on the median line at apical third, behind which the surface is feebly longitudinally elevated, with a narrow transverse apical depression, and a broader one along the base, with a series of coarse deep punctures in the apical and basal depressions, densely clothed with white and yellowish-white pubescence, and ornated with two distinct black pubescent spots along anterior margin, and three more obsolete ones along the base. Scutellum elongate-triangular, feebly concave, and clothed with cinereous pubescence on the antero-median part and black pubescence at the sides. Elytra one and three-fourths times as long as wide, and distinctly wider than pronotum; humeri feebly developed; sides gradually obliquely attenuate, more strongly so posteriorly, the tips feebly obliquely truncate internally, with the exterior angles obtuse, but not produced; surface regularly convex and nearly even, irregularly punctate, the punctures dense and coarse on basal region, but becoming finer and more widely separated toward the apex, densely clothed with recumbent cinereous, ochra-

ceous and blackish-brown pubescence, and each elytron ornated with a black spot along suture behind the scutellum, and a narrow arcuate one behind the middle, and also ornated with cinereous pubescence as follows: a narrow longitudinal arcuate vitta at base, a broad obsolete fascia extending from the humerus obliquely backward to the suture, and a distinct narrow transverse zigzag fascia near the apex, which is farther advanced forward along the suture, and connected posteriorly to a narrow band extending along the suture to apex. Beneath densely, obsoletely punctate, the last abdominal segment strongly acuminate posteriorly, the apex of ventral surface deeply arcuately emarginate, and the dorsal surface with a small deep angular emargination at the middle, with the lobes narrowly rounded at tips; prosternal process nearly one-half as wide as the coxal cavities, nearly flat at middle, with the sides strongly elevated; mesosternum as wide as coxal cavities, broadly triangular, sides elevated, obliquely declivous in front, and feebly emarginate posteriorly; femora rather strongly, but not abruptly clavate apically. Length, 15 mm.; width, 6.2 mm.

TYPE-LOCALITY.—Nagua, Oriente, Cuba.

OTHER LOCALITIES.—Guantanamo, Cuba.

TYPE.—Coll. U. S. Nat. Mus.

PARATYPE.—Coll. Amer. Mus. Nat. Hist.

Described from two specimens, male and probably a female. The type (male) was collected at the type-locality, July 7, 1922, by S. C. Bruner and C. H. Ballou, and the paratype (female?) at light at Guantanamo, Cuba, June 1, 1917, by C. T. Ramsden.

The paratype differs from the type in having the antennæ slightly shorter, pubescence above more yellowish brown, black spots on pronotum more distinct, brown pubescence on antennæ predominating, black spot on elytra behind middle more sinuate, and the zigzag fascia near apex more confluent and forming a large triangular spot, pubescence beneath sparser and more brownish, with a few white spots toward the sides, and the last abdominal segment longer, narrower at apex, and the dorsal surface only feebly emarginate.

This species is very closely allied to *Trypanidius melancholicus* Serville and may prove to be only a local color variety of that species, which is more uniformly brown above, with scarcely any cinereous pubescence intermixed, elytra more strongly punctured, with a more or less distinct basal crest, and the transverse cinereous fascia near apex not strongly angulated externally, but nearly transverse, with the internal part of the fascia bent obliquely forward to the suture; beneath nearly glabrous, with numerous irregularly placed spots of bright ochraceous pubescence toward the sides, and the mesosternum slightly gibbous between the coxæ.

***Leiopus atrovittatus*, new species**

MALE.—Form elongate, subparallel and slightly depressed; above reddish brown, rather densely clothed with cinereous and brownish-yellow scale-like hairs

intermixed, and the elytra ornated with more or less distinct, irregularly placed longitudinal streaks of a dark brown or blackish color; beneath yellowish brown, the legs dark brown except the base of tibiae and femora, which are rufous.

Head slightly transverse and feebly convex in front, rather deeply concave between the antennal tubercles, which are feebly elevated and widely separated, the surface densely clothed with recumbent cinereous and brownish-white pubescence intermixed, which conceals the surface, and with a distinct narrow longitudinal groove extending from the epistoma to occiput; eyes rather coarsely granulated, deeply emarginate, and separated from each other on the top by about the width of the emargination of the eyes in front, the lower lobes rounded, and the upper lobes small and narrow. Antennae about one and one-half times as long as the body, pale rufous, more or less mottled with cinereous pubescence, and the apex of the joints annulated with brown. Pronotum nearly two times as wide as long, and slightly narrower at base than apex; sides obliquely expanded from apical angles to near the base, where they are obtusely rounded and abruptly constricted; surface even, with a transverse, broadly concave depression along base, sparsely, irregularly punctate, densely clothed with cinereous and brownish-yellow pubescence intermixed, and ornated with a small black spot on each side of the median line near the anterior margin. Elytra nearly four-fifths longer than wide, and slightly wider than the pronotum; sides nearly parallel to apical fifth, then arcuately attenuate to the tips, which are obliquely truncate internally, with the exterior angles obtuse; surface slightly uneven, strongly declivous at the sides, but the carina not distinctly marked, the discal lines distinct but not elevated, densely and irregularly punctate, with a few small irregularly placed black spots, rather densely clothed with cinereous and brownish-yellow pubescence, and ornated with a large elongate black spot along the lateral margin behind humeri, and with a number of more or less distinct, irregularly placed black streaks over the surface. Beneath finely, densely punctate, and sparsely clothed with cinereous pubescence; last abdominal segment slightly longer than the fourth and subtruncate at apex; middle coxae separated by about their own width; femora strongly clavate toward apex; basal joint of hind tarsi shorter than the following joints united.

FEMALE.—Differs from the male in having the antennae slightly shorter, femora not as strongly clavate, and the last abdominal segment arcuately emarginate at apex. Length, 4.2–6 mm.; width, 1.75–2.75 mm.

TYPE-LOCALITY.—Yara, Cuba.

OTHER LOCALITIES.—El Gato, Peninsula de Guanahacabibes, Cuba; Sanchez, Dominican Republic.

TYPE AND PARATYPE.—Coll. U. S. Nat. Mus.

ALLOTYPE.—Coll. Amer. Mus. Nat. Hist.

PARATYPE.—Coll. Estacion Exp. Agronomica, Cuba.

Described from four specimens, two males and two females. The type was collected at the type-locality on July 5, 1922, by S. C. Bruner and C. H. Ballou; one male paratype was collected at El Gato, Cuba, on April 10, 1924, by S. C. Bruner; and the allotype and one female paratype, received from The American Museum of Natural History, were collected at Sanchez, Dominican Republic, during June and July, 1915, by Mr. F. E. Watson.

This species is quite variable in coloration. The male paratype from El Gato is quite small, and the dark markings are more distinct than on

any of the other specimens. In the allotype the dark markings on the pronotum are more numerous and distinct than in the type, and the black spots on the elytra behind the humeri are scarcely indicated.

***Leiopus variabilis*, new species**

MALE.—Similar to *atrovittatus* Fisher in form; above uniformly reddish brown, densely clothed with recumbent cinereous and brownish-white pubescence, and the elytra with an oblong dark spot along lateral margin, and sometimes the disk of elytra and pronotum ornated with more or less distinct blackish markings; beneath reddish brown, with apex of tibiæ, tarsi, and median parts of femora more or less brownish black.

Head slightly transverse and nearly flat in front, rather deeply concave between the antennal tubercles, which are feebly elevated and widely separated, the surface densely clothed with recumbent cinereous and brownish-white pubescence intermixed, which conceals the surface, and with a narrow longitudinal groove extending from the epistoma to occiput; eyes rather coarsely granulated, deeply emarginate, and separated from each other on the top by about the width of the emargination of the eyes in front, the lower lobes slightly longer than wide, and the upper lobes small and narrow. Antennæ about one and one-third times as long as the body, pale rufous or luteous, more or less mottled with cinereous pubescence, and the joints annulate with brown. Pronotum two-thirds wider than long, and slightly narrower at base than apex; sides obsoletely rounded from the apical angles to a rather prominent obtusely rounded denticle near the base, behind which they are strongly and abruptly constricted; surface slightly uneven, with a narrow transverse depression along anterior margin, and a broadly concave one along the base, sparsely, irregularly punctate, densely clothed with cinereous and brownish-white pubescence, and with a small black spot on each side of the median line near the anterior margin. Elytra two times as long as wide, and slightly wider than pronotum; sides parallel to apical third, then arcuately attenuate to the tips, which are distinctly obliquely truncate internally, with the exterior angles rather acute; surface rather uneven, strongly declivous at the sides, and the carina moderately developed, the discal lines rather prominent, strongly interrupted, and slightly elevated, coarsely, irregularly and rather densely punctate over entire surface, densely clothed with cinereous and brownish-yellow pubescence, with a few irregularly placed black fasciculi, and ornated with an elongate black spot along anterior margin behind the humeri, and an obsolete V-shaped fascia of cinereous pubescence near the middle. Beneath densely, obsoletely punctate, and rather densely mottled with long cinereous pubescence; last abdominal segment slightly longer than the fourth and truncate at the apex; middle coxæ separated by about their own width; femora strongly clavate toward apex, and the anterior pair distinctly shorter than the middle and posterior pairs; basal joint of hind tarsi shorter than the following joints united.

FEMALE.—Differs from the male in having the eyes more distinctly longer than wide, the denticle on side of pronotum more acute, with the pubescence on disk more brownish and a black median line which is strongly interrupted at middle, the pubescence on elytra more uniformly cinereous, femora not as strongly clavate, and the last abdominal segment considerably longer than the fourth, strongly acuminate, and arcuately emarginate at apex. Length, 4-6.5 mm.; width, 2-3.25 mm.

TYPE-LOCALITY.—Male, Cayamas, Cuba; female, 12½ kilometers south of Pinar del Rio, Cuba.

OTHER LOCALITIES.—Santiago de las Vegas, Cuba.

TYPE AND PARATYPES.—Coll. U. S. Nat. Mus.

ALLOTYPE AND PARATYPE.—Coll. Amer. Mus. Nat. Hist.

Described from eight specimens, seven males and one female. The type and five paratypes collected at the type-locality by E. A. Schwarz between May 6 and June 11; the allotype, received from The American Museum of Natural History, was collected 12½ kilometers south of Pinar del Rio, Cuba, between September 12 and 23, 1913, by Messrs. C. W. Leng and F. E. Lutz; and a paratype from Santiago de las Vegas, Cuba, was collected by P. Cardin, who reports it as "a borer of Cassava plants."

This species shows considerable variation in color and markings. Paratypes, *a*, *b*, and *c* are similar to the type, but in paratypes *d*, *e*, and *f* the coloration is darker, the elytra with the suture brownish anteriorly, while in paratype *f* this dark marking is extended irregularly over the apical half of the elytra. Among the material received from The American Museum of Natural History are two small specimens collected near the same locality as the allotype. These I had at first separated out as a distinct species but, after a more careful study of the variation in the other examples, have placed them temporarily under this species until more material is available for study. The pubescence on these specimens is of a more uniform brownish-white color, with scarcely any cinereous hairs intermixed, except in one of the specimens, where the V-shaped cinereous fascia is obsoletely indicated, with numerous small black fasciculi, and with a slightly darker V-shaped fascia just behind the usual cinereous fascia, which is entirely absent in one of these examples.

***Leiopos laticollis*, new species**

MALE.—Similar to *atrovittatus* Fisher in form; above uniformly reddish brown, rather densely clothed with recumbent brownish-white pubescence, and the elytra ornated with an oblong black spot along lateral margin behind the humeri and an obsoletely marked cinereous V-shaped fascia just behind the middle, with the apex toward the base, and in the apex of which is a small black spot common to both elytron; beneath reddish brown, with the apex of tibiae, tarsi, and median parts of femora more or less brownish black.

Head slightly transverse and feebly convex in front, rather deeply concave between the antennal tubercles, which are feebly elevated and widely separated, surface densely clothed with recumbent brownish-white pubescence, which conceals the punctuation, and with a narrow longitudinal groove extending from the epistoma to occiput; eyes rather coarsely granulated, deeply emarginate, and separated from each other on the top by about the width of the emargination of the eyes in front, the lower lobes nearly rounded, and the upper lobes small and rather narrow. Antennae about two-thirds longer than the body, pale rufous to luteous, mottled with cinereous and brown pubescence, and the joints more or less annulated dark brown. Pronotum

two-thirds wider than long, and slightly narrower at base than apex; sides feebly arcuately rounded from the apical angles to a rather prominent obtusely rounded denticle near the base, behind which they are strongly and abruptly constricted; surface rather even, with a narrow transverse depression along the anterior margin, and a broadly concave one along the base, sparsely, irregularly punctate, and densely clothed with brownish-white pubescence, without any distinct dark markings. Elytra five-sevenths longer than wide, and distinctly wider than the pronotum; sides parallel to apical third, then arcuately attenuate to the tips, which are distinctly obliquely truncate internally, with the exterior angles obtuse; surface slightly uneven, strongly declivous at the sides, but the carina not distinctly marked, the discal lines interrupted and nearly obsolete, coarsely, irregularly and rather densely punctate over entire surface, densely clothed with rather uniformly colored brownish-white pubescence, with a few irregularly placed black fasciculi, and ornated as noted above. Beneath densely, obsoletely punctate, and sparsely clothed with cinereous pubescence; last abdominal segment not longer than the fourth, and subtruncate at apex; middle coxæ separated by about their own width; femora strongly clavate toward apex, and the anterior pair distinctly shorter than the middle and posterior pairs; basal joint of hind tarsi shorter than the following joints united.

FEMALE.—Differs from the male in having the antennæ only slightly shorter, pronotum a little wider in proportion to its length and the denticle on the sides near the base slightly more acute, femora not quite as strongly clavate, and the last abdominal segment longer than the fourth, more acuminate, and arcuately emarginate at the apex. Length, 5-7 mm.; width, 2.4-3.25 mm.

TYPE-LOCALITY.—Sanchez, Dominican Republic.

OTHER LOCALITIES.—San Lorenzo, Dominican Republic.

TYPE, ALLOTYPE AND PARATYPE.—Coll. Amer. Mus. Nat. Hist.

PARATYPE.—Coll. U. S. Nat. Mus.

Described from four specimens, two males and two females, received from The American Museum of Natural History. The type and allotype were collected at the type-locality between June 7 and 12, 1915; and a male and female paratype were collected at San Lorenzo, the female on June 27, 1915, and the male July 15, 1915; Mr. F. E. Watson, collector.

This species is rather uniform in coloration and markings, although in the two examples from San Lorenzo, the black spot on middle of elytra is smaller.

Calocosmus fulvicollis, new species

FEMALE.—Form elongate, subparallel, and rather narrow; head dull black, with the epistoma and anterior margin fulvous; pronotum and scutellum fulvous; elytra purplish black, with the suture and anterior two-thirds of lateral margin narrowly margined fulvous; beneath fulvous with a more or less brownish tinge, and the legs black or dark brown.

Head strongly transverse and flat in front, flat between the antennal tubercles, which are very widely separated and feebly elevated, the surface subopaque, coarsely, sparsely and irregularly punctate, rather densely clothed with fine, inconspicuous cinereous pubescence, with a few longer, erect hairs intermixed, and with a feebly impressed narrow longitudinal groove on the front; eyes rather large, finely granu-

lated, nearly divided, and separated from each other on the top by two times the width of the emargination of the eyes in front, the lower lobes round and moderately convex, the upper lobes small and narrow. Antennæ about as long as the body, entirely dull black, and rather densely clothed with short, dark pubescence, with a few longer hairs on the under side of the joints. Pronotum slightly wider than long, the apex and base equal in width, and the sides nearly parallel; surface strongly, regularly convex, with a very feeble, broadly concave transverse depression along the base, coarsely, rather densely, and very irregularly punctate, and sparsely clothed with fine, inconspicuous, erect pubescence, with a few longer hairs intermixed. Scutellum triangular, as wide as long, and broadly rounded behind. Elytra a little more than two times as long as wide, and distinctly wider than pronotum, the sides parallel at basal fourth, feebly broadly expanded to apical fifth, then strongly arcuately attenuate to the tips, which are separately rounded; surface regularly convex, coarsely, densely punctate, rather densely clothed with short, fine, inconspicuous pubescence, and with a row of densely placed long, recumbent, cinereous pubescence on the fulvous area along the suture. Beneath densely, obsoletely punctate, and rather densely clothed with moderately long, recumbent, cinereous pubescence; last abdominal segment as long as the third and fourth segments united, broadly rounded at apex, and clothed with numerous long, erect black hairs posteriorly. Length, 7 mm.; width, 2.25 mm.

TYPE-LOCALITY.—Guantanamo, Cuba.

TYPE.—Coll. Amer. Mus. Nat. Hist.

Described from a unique female received from The American Museum of Natural History and collected at the type-locality, May 1, 1907, by C. T. Ramsden.

This is very closely allied to *Calocosmus semimarginatus* Bates and, when more material is available for study, may prove to be only a color variety of that species. It differs from that species in having the head entirely black, except the epistoma and anterior margin, which are fulvous, antennæ entirely black, elytra not fulvous at base, and in the original description nothing is mentioned of the distinct row of cinereous pubescence along the elytral suture.

***Calocosmus chevrolati*, new species**

MALE.—Form elongate, subparallel, and rather narrow; above fulvous, with the tips of the mandibles, and the elytra with the apical third and a large humeral spot dull black; beneath fulvous, with the last two abdominal segments, tibiae and tarsi dark brown.

Head strongly transverse and nearly flat in front, feebly concave between the antennal tubercles, which are very widely separated and feebly elevated, the surface sparsely and coarsely punctate, the punctures nearly concealed by the dense, erect, fulvous pubescence, with a few long erect hairs intermixed, and with a narrow brown longitudinal groove extending from near the epistoma to the occiput; eyes large, finely granulated, nearly divided, and separated from each other on the top by only a little more than the width of the emargination of the eyes in front, the lower lobes round and strongly convex, the upper lobes small and narrow. Antennæ slightly longer than the body, dull black, except the intermediate joints which are annulated with yellow at

base, rather densely clothed with short black pubescence, and with numerous long erect hairs on the under side of the joints. Pronotum nearly three-fifths wider than long, the apex and base equal in width, and the sides nearly parallel and only feebly tumid at middle; surface regularly convex, with a broadly concave transverse depression along the anterior margin and base, the basal one being slightly deeper, sparsely, coarsely and very irregularly punctate, and sparsely clothed with short, erect, inconspicuous pubescence, with a few longer hairs intermixed. Scutellum somewhat triangular, only slightly wider than long, and broadly rounded behind. Elytra a little more than two times as long as wide, and distinctly wider than the pronotum; sides nearly parallel to apical sixth, then broadly rounded to the tips, which are conjointly broadly rounded; surface subopaque, densely, not very coarsely and irregularly punctate, rather densely clothed with short, semierect pubescence, which is fulvous on the fulvous areas and brownish on the black parts, and each elytron with two or three obsolete longitudinal costæ. Beneath densely obsoletely punctate and rather densely clothed with rather long, recumbent pubescence, with a few longer, erect hairs intermixed; last abdominal segment not quite as long as the third and fourth segments united, broadly subtruncate at apex, and clothed with numerous long, erect black hairs posteriorly.

FEMALE.—Differs from the male in being slightly larger and in having the antennæ about as long as the body, eyes separated from each other on top by about two times the width of the emargination of the eyes in front, and the last abdominal segment as long as the two preceding segments united, entirely fulvous, and broadly rounded at apex. Length, 8–9.2 mm.; width, 2.2–3 mm.

TYPE-LOCALITY.—Guantanamo, Cuba.

TYPE.—Coll. Amer. Mus. Nat. Hist.

ALLOTYPE.—Coll. Mus. Comp. Zoölogy.

Described from two specimens, male and female. The type, received from The American Museum of Natural History, was collected on the San Carlos Estate, Guantanamo, Cuba, on June 1, 1908, by Charles T. Ramsden. The allotype, which is from the Deyrolle Collection, was received from the Museum of Comparative Zoölogy, Cambridge, Mass., and is simply labeled "Cuba."

This species has been confused in collections with *Calocosmus speciosus* Chevrolat, but in that species the dark markings on the elytra are violaceous blue, very coarsely and densely punctate, and without any trace of longitudinal costæ, and the last abdominal segment in the male fulvous, not as strongly attenuate posteriorly, and broadly subtruncate or feebly emarginate at apex, while in *chevrolati* the elytral markings are dull black, not very strongly punctate, and with obsolete longitudinal costæ, and the last abdominal segment in the male dark brown, more attenuate posteriorly, and more narrowly subtruncate at apex.

***Calocosmus hispaniolæ*, new species**

FEMALE.—Form elongate and slightly expanded posteriorly; head fulvous, except the eyes and tips of mandibles, which are black; pronotum, scutellum and elytra fulvous, the latter with the posterior third shining, dark greenish-blue and margined

anteriorly with black; beneath fulvous, with the posterior tibiæ and last abdominal segment dark brown, and the anterior and middle tibiæ only feebly tinged with brown.

Head strongly transverse and feebly convex in front, obsoletely depressed between the antennal tubercles, which are very widely separated and feebly elevated, the surface subopaque, sparsely, very coarsely and irregularly punctate, sparsely clothed with short, inconspicuous pubescence, with a few erect hairs intermixed, and with an obsolete longitudinal groove extending from the epistoma to occiput; eyes large, finely granulated, nearly divided, and separated from each other on the top by about two times the width of the emargination of the eyes in front, the lower lobes round and rather strongly convex, the upper lobes small and narrow. Antennæ about as long as the body, dull black, with joints four to seven annulated with yellow at base, and rather densely clothed with short, black pubescence, with numerous long, erect hairs, on the under side of the joints. Pronotum nearly three-fifths wider than long, the base and apex equal in width, and the sides nearly parallel and only obsoletely rounded at the middle; surface regularly convex, feebly tumid on disk, and only obsoletely transversely depressed along base, sparsely, coarsely and irregularly punctate except on middle of disk, and sparsely clothed with short, inconspicuous pubescence, with a more or less distinct vitta of denser and more whitish pubescence on each side toward the lateral margin. Scutellum somewhat triangular, wider than long, and broadly rounded behind. Elytra about two times as long as wide, and distinctly wider than pronotum; sides parallel at basal fourth, rather strongly obliquely expanded to apical sixth, then strongly arcuately rounded to the tips, which are separately broadly rounded; surface subopaque, rather densely, coarsely and irregularly punctate on the fulvous area, smooth and shining on the greenish-blue part, rather densely clothed with short, erect inconspicuous pubescence, and each elytron with two or three obsolete longitudinal costæ. Beneath densely, obsoletely punctate, and rather densely clothed with very short, inconspicuous pubescence; last abdominal segment as long as the third and fourth segments united, broadly rounded at apex, and clothed with a series of long, erect, black hairs along apical margin. Length, 8 mm.; width, 3 mm.

TYPE-LOCALITY.—San Lorenzo, Santo Domingo.

TYPE.—Coll. Amer. Mus. Nat. Hist.

Described from a unique female received from The American Museum of Natural History and collected at the type-locality, between June 27 and 29, 1915, by Mr. F. E. Watson.

This species resembles *Calocosmus melanurus* Gahan very closely, but in that species the form is strongly cuneiform, pronotum more uneven, and the sides more tumid at middle, elytra with the apical third entirely black and subopaque, the surface more densely punctured, the intervals strongly granulose, and the humeri more strongly developed.