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WEST INDIAN CARABIDÆ II.: ITINERARY OF 1934; FORESTS OF HAITI; NEW SPECIES; AND A NEW KEY TO COLPODES*

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In this, my second paper on West Indian Carabidæ,¹ are presented the results of a collecting trip to Cuba, Jamaica, and Haiti made between July 28 and November 28, 1934, through a grant from the Milton Fund of Harvard University. I hope to continue this series of papers from time to time as additional material becomes available, and eventually to end it with a complete revision of the Carabidæ of the West Indies, with discussions of their distribution and relationships, of the origin of the faunæ of the isolated mountain ranges, and of other problems.

ITINERARY: From August 2 to 12 aided by a small additional grant from the Atkins Fund, I was at the Harvard station at Soledad, near Cienfuegos, Cuba, collecting especially the smaller, more inconspicuous ground insects. On August 13 I arrived in Kingston, Jamaica, and went at once to Whitfield Hall (Miss. G. L. Stedman, office in Kingston) at about 4,500 ft. elevation on the south slope of the main range of the Blue Mts. From here it was easy to climb to fine collecting in the damp cloud forest of Blue Mt. Forest Reserve, and to reach Blue Mt. Peak, 7,388 ft., the highest summit on the island. On August 20 I returned to Kingston and motored across the island to Ocho Rios, on the north coast. Swamp and pond collecting

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¹The first, "New West Indian Carabidæ, with a List of the Cuban Species," appeared in *PSYCHE*, Vol. 41, 1934, pp. 66-131.

proved to be good, especially at Bogue, a large coconut plantation. Castle Daly (August 24-25, as the guest of Mr. Robert W. Bell) and Moneague Lake (August 25-26) proved, entomologically, rather disappointing. On the 26th I returned to Kingston, staying at Mona Great House, near Hope Gardens, and spent the next three days working the Liguanea Plain and nearby country. Ground beetles were unexpectedly numerous. A trip (afternoon of August 29) to the Rio Cobre at a point about 5 miles above Spanishtown, and to the swamps beside the main road from Kingston to Spanishtown, resulted in an especially fine collection.

On August 30 I reached Haiti, meeting Dr. Marston Bates at Port-au-Prince, where we made our headquarters at the Sans Souci Hotel. After several days of delay, spent partly in collecting in the Cul de Sac region, we drove in a 1927 Buick roadster into northern Haiti. From September 5 to 11 we were at Ennery, about 1,000 ft. altitude, working especially along the fine little river near the town. On September 9 we made a rather hasty side trip to Mt. Basil, probably the highest mountain in northern Haiti, and found several fine, new mountain Carabidæ in patches of very wet, low cloud forest on the summit plateau, about 4,700 ft. Engine trouble forced us to return to Port-au-Prince on September 11. We broke the drive south long enough for me to spend a very profitable four hours along the edge of the extensive swamps north of Dessalines.

While our car was garaged, we persuaded Mr. André Audant, government entomologist of Haiti, to join us in a miniature "safari" to the neighborhood of La Visite, on the western end of the main range of La Selle, south of Port-au-Prince. Our schedule was arranged to the last detail through the good offices of Captain Frederick Baker, whose knowledge of the country and country people is unsurpassed. We were away from September 16 to 23, making our base camp in tall pine forest at over 6,000 ft., beside the small river called by the local Negroes the Rivière Blanche, but referred to by Wetmore² as the Rivière

²Birds of Haiti and the Dominican Republic, by Alexander Wetmore and Bradshaw H. Swales, Bulletin 155, United States National Museum, 1931.

Chotard. This stream flows south, and cannot be the north-flowing Rivière Blanche of the map.³ We used Wetmore's actual camp site (*l. c.*, Plate 9). Ground collecting in the wet cloud forest was exceedingly good, but the pine forest, under which the ground cover had been burned, was barren.

Back at Port-au-Prince, we found ourselves unable to afford further auto travel, and Dr. Bates was forced to leave for Panamá. After several days of delay, during which, through the great kindness of Dr. H. D. Barker, I was able to make auto trips to about 2,000 ft. in the foothills of the La Selle massif above Port-au-Prince (October 2), to the Rivière Froide about 6 miles south of the city (October 3), and to Poste Terre Rouge, 2,000 ft., in the mountains just north of the Cul de Sac (October 5), I left by public bus for Aux Cayes, on the southwestern peninsula of Haiti. From Aux Cayes I hired a car inland to Camp Perrin, which I reached October 8. Two days sufficed to pacify the local authorities and hire porters, and the next 16 days were spent on foot in the maze of wet ranges which constitute the Massif de la Hotte. Our route lay first north from Camp Perrin along the narrow, new road, impassable for cars in rainy weather, which crosses the foothills toward Jérémie, then west by vile foot trails, and finally north to Desbarrière (about 4,000 ft.), on a spur which curves down first north and then west from the northern slope of La Hotte itself. From Desbarrière, October 13, with a local man as guide, I ascended the ridge to above Roche Croix (a prominent rock marked with a rude natural cross), to about 5,000 ft., and found, beside new beetles, a new genus of snake and a new lizard of a genus previously known only from Jamaica. Further advance by way of the long ridge proved impracticable—the ground was covered with treacherous limestone formations hidden under deep moss and bracken—so we packed and moved from Desbarrière down a thousand feet or so to Tardieu (pronounced more like "Targi" by the inhabitants) in the valley of the turbulent Rivière Tardieu, be-

³We used the *Carte de la République d'Haiti*, issued by the *Direction Generale des Travaux Publics*, Port-au-Prince, 1928.

tween the ridge of Desbarrière and the north slope of La Hotte. From Tardieu I ascended the main peak (Pic de Macaya on the map, but called merely "La Hotte" locally; 7,800 ft. or a little less), taking four days (October 15-18) for the climb and descent. I spent an exceedingly cold night on top, with no cover except a leather jacket, and encountered various difficulties of no particular scientific interest. The climax of the ascent was partly spoiled by the discovery that surveyors had been up two or three years before, cutting a temporary trail from the other side, and had felled an acre or two of the big pines on the highest point to make room for surveying targets, but my catch of ground insects was more than satisfactory. From October 19 to 22 our departure from Tardieu was blocked by the river, flooded by heavy rains; then two days of steady walking took us back to Camp Perrin. On October 26 and again on the 27th I collected along the shores of Etang Lachaux, a fine, small lake an hour's walk over a ridge east of Camp Perrin. This was perhaps the best single locality I found below 1,000 ft. for ground collecting. Miragoane (October 30 to November 2), on the other hand, proved to be about the worst, in spite of the extensive swamps along the lake shore. On November 2 I reached Port-au-Prince again. Four days later an attack of malaria forced me to go up to Kenskoff, above the city, on one of the outer ridges of the Massif de la Selle, at about 4,500 ft., to rest and recuperate in the cool climate. I did a little collecting in the neighborhood, from about 4,000 ft. to Morne Tranchant, about 6,000, directly above Kenskoff. From November 15 to 20, after returning to Port-au-Prince, I made a very unprofitable trip to Manneville, at the western end of Etang Saumâtre, and to swampy Trou Caïman nearby, and an equally unprofitable ascent of Mt. Trou d'Eau (about 5,200 ft.). This is the highest Haitian peak just north of the Cul de Sac, near Thomazeau. On November 22 I sailed from Port-au-Prince for New York.

PRESENT FORESTS OF HAITI: Four centuries of occupation by a large population of Negro peasants (according to the *World Almanac* there are about 2,550,000 people in the country to-day, or about 250 per square mile) have left no

real forest at low altitude in Haiti, nothing better than cactus and acacia scrub and dry, open woodland, and even these exist only where fresh water is not available for humans. A single exception should perhaps be made of the tip of the southwestern (Tiberon) peninsula, near Dame Marie. Here, according to Dr. Barker, who has seen the region from the air, good forest seems to be continuous from the westernmost ranges of the Massif de la Hotte down almost to sea level. The vegetation indicates a local rainfall of nearly 200 inches a year. With this exception, all the wet forest of Haiti (I am speaking of the country, not the island, for I do not know Santo Domingo) is now confined to the mountains.

The mountains of the country of Haiti form three natural geographical divisions. Each division has its own distinctive ground fauna, found as a rule only in the remnants of cloud forest at high altitudes. Almost all of the true mountain species and even some of the genera are restricted to a single one of these divisions. This is true not only of the insects but of the lizards, frogs, mollusks, *Peripatus*, etc. as well. The mountains of the northern part of Haiti, north of the Cul de Sac, may probably be considered faunistically as a single division (*Division I.*). They are relatively low and accessible, and what little forest is left on them is confined to the summits of a very few ranges. The sooner these mountains are thoroughly explored zoologically, the better, for some forest species have probably already become extinct, and others will follow. On the plateau of Mt. Basil (4,700 ft.), to which we climbed from the road between Ennery and St. Michel de l'Atalaye, there is still a good deal of low, dense, wet cloud forest. The plateau is rough and there is no permanent drinking water, and the Negroes do not like the cold at that altitude, but even so they climb up daily and are gradually clearing the best growth to plant vegetables. In 1928 there were some patches of much better cloud forest on Haut Piton (about 3,900 ft.), near Port-de-Paix, according to Mr. James Bond, who climbed the mountain on an ornithological reconnaissance, but they were rapidly being destroyed at that time. There is also a small area of forest on Puilboreau, just north of Ennery, but it is said to be

on a slope, and much drier than the plateau forests. I have not been able to learn definitely of any other good forest in the North, although a little may still exist on other isolated ranges. The summit of Morne Salnave (NW. Haiti) is said to be covered with low, scrubby second growth (Bond). The conditions I found on Mt. Trou d'Eau (5,200 ft.) are probably typical of most of the more accessible peaks: very dry, rather open woods on the lower slopes; pastures and gardens above, where the soil is better, right up to the summit, which was crowned by a corn field.

South of the Cul de Sac, which forms a perfect barrier to mountain animals, the mountains are higher and wetter, and there are still large areas of forest. This is the case on the Massif de la Selle (*Division II.*), or at least on the plateau of the main range, where there are extensive pine woods as well as long strips of dense, low cloud forest. The cloud forest, under which the soil is black and rich, is being attacked by Negro farmers, who have pushed their gardens in places up to 7,000 ft., but it will probably be many years before it is all destroyed. The pine woods will probably last even longer, for the soil is poor, but unfortunately, at least on the western end of the range, which was all we saw, they have been marred by repeated burning of the ground vegetation under the trees. Some of the outlying ridges, too, of this massif, have evidently supported both pine and cloud forest in the past, but for the most part, as on Morne Tranchant above Kenskoff, the trees have all been cut and the mountain fauna persists, if at all, only in damp thickets and gullies. There is, however, some good cloud forest left in the Crête à Piquant (western) section of the La Selle massif (Bond).

West of the higher ranges of the Massif de la Selle, for perhaps 60 miles along the narrow middle part of the peninsula, lie a series of lower ridges without notable peaks. These, as can be seen from the road, are mostly either stripped or so dry as never to have been heavily forested. The latter is probably the case, for the ground life of the La Hotte mountain complex (*Division III.*) at the outer end of the peninsula has evidently long been isolated from that of La Selle. First of the important western mountains is Bonnet Carré, between Aquin and L'Asile, a broad

dome a little over 4,000 ft. high. Seen from La Hotte, this mountain seems still to be capped with at least a square mile of dark forest. It is entirely unknown entomologically. Botanically it is related to La Hotte, but with some peculiar forms. Between Bonnet Carré and the easternmost rainforest (at about 2,000 ft.) on La Hotte there are 20 miles or more of low, dry ridges. The high ranges of the central part of the La Hotte massif (Pic de Macaya, Pic du Formon, and Pic de la Gde. Colline on the map), and apparently also most of the lower ranges to the west almost to the coast, are very heavily forested. On La Hotte itself is a completely unbroken tract, without even trails, probably 8 or 10 miles across the narrowest way. The forest is of two kinds: fine pine with unusually thick undergrowth and with thick moss and pine needles on the ground, and lower, denser, very wet cloud forest, without pine, fringed with cutting climbing bamboo and other atrocious plants. It is in the La Hotte region, of all Haiti, that there is to-day the best chance of finding novel forms of life, and it is undoubtedly there that natural conditions will persist longest.

DESCRIPTIONS: Wherever in the following pages definite proportions are given—for instance the relative width of head and prothorax—they are based on actual measurements made under a binocular microscope. Estimates made without measuring are likely to be surprisingly inaccurate. I have invariably measured the width of the head across the eyes at the widest point; width of prothorax, at widest point; length of prothorax, at middle, regardless of whether or not the anterior angles project forward; width of base of prothorax, between angles; width of apex, between most advanced points of angles.

***Ardistomus alticola* n. sp.**

Very stout and convex; black, shining but not metallic; not spotted; legs piceous; antennæ, palpi, and tarsi rufous. *Head* with front margin of clypeus faintly convex; front lightly, vertex not distinctly transversely impressed. *Prothorax* suborbicular, moderately narrowed in front; lateral margins distinct to base; disk with usual fine middle line and anterior transverse impression; not punctate. *Elytra*

broad and convex; humeri rounded; striæ deep, impunctate, entire and strong at apex, 2nd as well as others entire at base; short accessory stria at extreme base close to suture; 3rd stria running to humeral margin; intervals convex, shining, 3rd with 5 setigerous punctures; trace of alutaceous microsculpture at extreme base of elytra. Last ventral with 2 setigerous punctures each side near margin. Front tibia with 1 strong and 1 weak tooth on outer side above terminal digit; front tarsi rather widely dilated. Length 4.7; width 1.8 mm.

HAITI: holotype (M. C. Z. no. 22012) and 1 paratype from Mt. Bourette, La Selle massif, 5,000 ft., Sept. 16 & 23; under mossy stones in a damp gully.

Very similar to *A. lævistriatus* F. & S. of Guadeloupe (I have 1 specimen borrowed from the U. S. N. M.) but the prothorax of the Haitian species is less inflated at sides below the margin, and the 2nd elytral stria is not abbreviated basally as it is in *lævistriatus*. Moreover the latter lacks scutellar striæ and is much more alutaceous across the base of the elytra. The striæ of the elytra are deeper at apex in the Haitian species.

Tachys (Tachyta) noctis n. sp.

Form average for *Tachyta*, rather parallel and subdepressed, but head smaller than usual; black, appendages, mouth parts, and lateral margins of prothorax and (less distinctly) of elytra testaceous; upper surface entirely moderately alutaceous. *Head* $2/3$ width prothorax; eyes only slightly prominent; front with usual 2 weak impressions; antennæ short, 2nd and 3rd joints subequal, outer ones (except apical) moniliform; mentum not biperforate, toothed at middle. *Prothorax* $2/5$ or slightly less wider than long; sides slightly rounded anteriorly, approximately straight before the posterior angles (sometimes minutely, faintly sinuate); posterior angles nearly right; fine but distinct costa each side from base for $1/3$ of length within (not on) margin; lateral margins translucent, evenly explanate from base to apex, as wide or wider than in *T. flavicauda*; middle line and basal transverse impression well marked, anterior impression very faint. *Elytra* only slightly depressed; each about 6-striate (7th and 8th striæ

barely detectable), inner striæ strongly impressed, outer shallower, all except sutural slightly abbreviated at extreme apex; apical stria recurved as usual; outer edge 3rd interval with setigerous punctures just before middle and $\frac{1}{4}$ from apex. Two basal joints ♂ front tarsus dilated, with anterior apical angles somewhat produced. Length 2.25-2.5; width 1.0 mm. (slightly more or less).

HAITI: holotype (M. C. Z. no. 22014) and 4 paratypes from Roche Croix, Massif de la Hotte, 5,000 ft., Oct. 13; 3 paratypes from northeastern foothills La Hotte, Oct 10-24; under bark.

Resembles in color the description of *marginicollis* Schaum (now called *neotropicus* Csiki) of Venezuela except that the appendages, of *noctis*, are testaceous (not rufopiceous), with femora not infusate. The elytra are described as bistrate in *marginicollis*; there are numerous striæ in *noctis*.

Tachys (Tachyura) tritax n. sp.

Form average for subgenus, convex; piceous, not distinctly spotted, shining, moderately iridescent; appendages and mouth parts testaceous. *Head* about $\frac{3}{4}$ width prothorax, eyes prominent; front shining, briefly bi-impressed anteriorly; antennæ moderate, middle joints about $\frac{1}{2}$ longer than wide; mentum not biperforate, toothed at middle. *Prothorax* about $\frac{1}{2}$ wider than long, sides strongly arcuate anteriorly, slightly sinuate before the obtuse but not blunted basal angles; latter briefly carinate; side margins narrow; basal transverse impression deep, punctulate, but not distinctly foveate; middle line very fine, anterior impression nearly obsolete. *Elytra* each 3-striate; sutural stria entire and recurved as usual, 2nd abbreviated about $\frac{1}{6}$ from base and apex, 3rd extending from anterior puncture (about $\frac{1}{3}$ from base) to slightly behind posterior puncture (about $\frac{1}{3}$ from apex), all 3 striæ well impressed. Male with 2 basal joints each front tarsus slightly dilated, with anterior apical angles slightly produced. Length 2.2-2.7; width 1.0-1.1 mm.

HAITI: holotype ♂ (M. C. Z. no. 22015) and 5 paratypes from Camp Perrin, Oct. 8-27; 10 paratypes from Trou Caïman, Nov. 15-20; 1 paratype from Ennery, Sept. 6; 2

paratypes from Mt. Trou d'Eau, 4,000 ft., Nov. 19; most taken beside temporary muddy pools in roads.

In Hayward's key to the North American species of *Tachyura* (Trans. American Ent. Soc. 26, 1899, pp. 202-), *tritax* runs to *incurvus* Say, agreeing in general form and in the structure of the basal transverse groove of the prothorax, but *incurvus* is spotted and has only a sutural stria on each elytron. Most of the known Central American species of this group have the basal groove strongly tri- or uni-foveate at middle, and none has other characters as in *tritax*. The striation of the elytra in the latter is remarkable for its constancy.

***Tachys* (s. s.) *carib* n. sp.**

Moderately broad and depressed; rather shining testaceous or brownish testaceous, head darker, iridescence faint. *Head* about $\frac{2}{3}$ width prothorax, but with eyes prominent, forming nearly right angles with sides of head behind them; antennæ with middle joints $\frac{1}{2}$ or slightly more longer than wide; front with usual 2 rather shallow subparallel impressions; mentum biperforate and toothed. *Prothorax* about $\frac{3}{5}$ wider than long; sides more or less strongly sinuate just before the right (but finely blunted) posterior angles; disk with usual impressions. *Elytra* rather broadly oval; humeri rounded but distinct; each elytron with about 3 inner striæ more or less impressed except at apex, outer striæ faint or absent; anterior dorsal puncture almost on 4th stria $\frac{1}{3}$ from base, posterior within hooked tip of recurved striole. Male with 2 basal joints each front tarsus narrowly dilated. Length 1.8-2.2; width 0.8-0.9 mm.

HAITI, CUBA, JAMAICA, PUERTO RICO: holotype ♂ (M. C. Z. no. 22017) and 95 paratypes from Ennery, Haiti, Sept. 6-11; additional paratypes from Haiti as follows: 7, northeastern foothills La Hotte, 2000-4000 ft., Oct. 10-24; 10, Camp Perrin, Oct. 8-27; 1, Rivière Froide, Oct. 3. Also the following specimens, not types: Cuba: 23, Soledad, near Cienfuegos, Aug. 2-12; Jamaica: 1, Rio Cobre, 5 mi. above Spanishtown, Aug. 9; 1, Blue Mts., about 4,500 ft., Aug. 13-20. All specimens taken by myself by washing out gravel bars, piles of stones, and trash by clear, running

brooks and rivers. Also Puerto Rico: 2, Serralles Finca, Ponce, June 5, 1934, R. G. Oakley (U. S. N. M.).

In my key (*l. c.*) this runs to *Tachys abruptus* Darl., but *carib* is much smaller, with sides of prothorax more sinuate basally and dilated joints of ♂ front tarsi much narrower.

Tachys trechulus n. sp.

Convex, rather ventricose, but otherwise of normal *Tachys* (*s. s.*) form; piceous or rufo-piceous, with sericeous lustre but scarcely distinct iridescence; appendages brownish testaceous, antennæ darker in basal $\frac{1}{2}$. *Head* about $\frac{7}{10}$ width prothorax, narrow and with elongate mandibles; eyes only slightly prominent; frontal sulci narrow, subparallel; antennæ moderate in length but with unusually long and conspicuous setæ, middle joints about $\frac{1}{2}$ longer than wide; mentum biperforate and toothed. *Prothorax* just over $\frac{1}{3}$ wider than long; sides arcuate anteriorly, straight posteriorly, very faintly sinuate before the obtuse, finely blunted posterior angles; base somewhat oblique at sides; disk convex; basal transverse and median longitudinal grooves fine, anterior transverse impression obsolete. *Elytra* oval, very convex, with narrowed, rounded humeri; each with entire sutural stria recurved as usual and several additional striæ faintly indicated on disk; anterior dorsal puncture on 4th interval about $\frac{1}{3}$ from base, posterior within hooked tip of recurved striole. Inner wings vestigial, strap-like, about $\frac{2}{5}$ length of elytra. Two basal joints ♂ front tarsus moderately dilated, with anterior apical angles produced. Length 2.6; width 1.2 mm.

JAMAICA: holotype ♂ (M. C. Z. no. 22018) and 1 ♀ paratype from Blue Mt. Forest Reserve, main range Blue Mts., 5,000-7,000 ft., Aug. 17-19; under deeply buried stones in damp forest.

Unique, among the *Tachys* (*s. s.*) with 2 joints each ♂ front tarsus dilated, in the atrophied wings and (consequently) ventricose elytra.

Perileptus dentifer n. sp.

Elongate, depressed; rufo-testaceous to brownish piceous, legs paler, antennæ scarcely so; upper surface pubescent

as usual. *Head* barely narrower than prothorax by measurement, appearing at least as wide; eyes very prominent; temples very briefly subparallel behind eyes; front shining, lightly punctate; antennæ slender, middle joints $3\frac{1}{2}$ -4 times long as wide; mentum toothed as usual. *Prothorax* cordate, $\frac{1}{4}$ or less wider than long; least width *before* basal angles slightly less than $\frac{2}{3}$ greatest width; sides very strongly sinuate before basal angles; latter very acute, directed almost laterally; sides of base oblique or somewhat emarginate near angles; lateral margins entire, normal, more or less crenate posteriorly; disk finely, moderately closely (not densely) punctate; impressions as usual. *Elytra* rather finely and closely punctate; sutural stria entire except at base, 2 or 3 other striæ faintly indicated, 3rd 3-punctate as usual. Male with 2 basal joints each front tarsus moderately dilated. Length 2.7-3.3; width 0.9-1.1 mm.

HAITI and PUERTO RICO: holotype ♂ (M. C. Z. no. 22019) and 43 paratypes from Ennery, Haiti, Sept. 6-11. Also the following specimens, not types: Haiti: 2, Rivière Froide, Oct. 3; 11, Camp Perrin, Oct. 8-27; 5, northeastern foothills La Hotte, 2,000-4,000 ft., Oct. 10-24; Puerto Rico: 2, Serralles Finca, Ponce, June 5, 1934, R. G. Oakley (U. S. N. M.). All my specimens were taken in gravel beside swift, clear streams.

Similar to the previously known West Indian *Perileptus* (*cf.* Darlington, *Psyche* 41, 1934, pp. 86-88) and like them a member of the *areolatus* group, but easily known by the very acute posterior prothoracic angles.

***Perileptus minutus* n. sp.**

Slender, depressed; testaceous or rufo-testaceous, rather shining; pubescence as usual. *Head* barely narrower than prothorax; eyes prominent; temples very briefly subparallel behind eyes; front obsoletely punctate, shining; antennæ relatively stout, middle joints 2-2½ times long as wide; mentum toothed. *Prothorax* subcordate, about $\frac{1}{8}$ wider than long, sides narrowed, sinuate, and then subparallel before right posterior angles; latter not truly basal, set slightly forward from the base so that prothorax is very briefly pedunculate; width across basal angles $\frac{2}{3}$

or slightly more greatest width; width basal peduncle $\frac{1}{2}$ greatest width; side margins narrow, entire, slightly crenate basally; disk with usual impressions, finely, not densely punctate. *Elytra* rather closely punctate, punctures relatively much coarser than in other American *Perileptus*, sutural stria entire except at base, other striæ scarcely indicated; usual 3 setigerous punctures on position of 3rd stria about $\frac{1}{5}$ from base, behind middle, and about $\frac{1}{10}$ from apex. Male with 2 basal joints each front tarsus dilated as usual. Length 1.8-1.9; width about 0.5 mm.

JAMAICA and HAITI: holotype ♂ (M. C. Z. no. 22020) and 1 ♀ paratype from Rio Cobre, 5 mi. above Spanishtown, Jamaica, Aug. 29; 1 ♀ paratype from Ennery, Haiti, Sept. 6; all washed from bars of river gravel.

Also a member of the *areolatus* group of *Perileptus*, but very distinct within the group because of its small size, rather stout antennæ, relatively coarsely punctate elytra, and subpedunculate prothorax.

***Dyschromus tiburonicus* n. sp.**

Form average; dull black with a brownish, purplish cast especially on the elytra; mouth parts and appendages brownish to piceous. *Head* about $\frac{2}{3}$ width prothorax; eyes moderate; front dull but not punctate, with 2 short impressions between anterior edges of eyes; vertex lightly transversely impressed; antennæ as usual in genus; mentum with short, emarginate tooth; labial palpi both sexes with apical joint very broadly triangular, apex nearly as wide as inner side in ♂; apical joint maxillary palpi slender, narrowly truncate. *Prothorax* about $\frac{1}{3}$ wider than long, slightly narrowed behind; sides straight or very broadly and slightly sinuate before right or slightly obtuse basal angles; base and apex not margined, side margins narrow, each with a seta $\frac{1}{3}$ from apex and at basal angle; disk rather flat basally, more finely alutaceous than head, not punctate; transverse impressions rather vague; middle line fine but well impressed except at base and apex; basal foveæ linear, about $\frac{1}{3}$ length prothorax, scarcely nearer sides than middle. *Elytra* convex, opaque; striæ entire, moderately impressed, impunctate except for a strong punc-

ture almost at base 2nd stria; first stria sometimes briefly obliterated near base, leaving 1 or 2 punctiform or linear impressions basally; intervals slightly convex, not irregular nor interrupted. Abdomen with last 3 segments transversely grooved at base as usual, grooves subcrenate laterally; prosternal process strongly margined; mesepisternum with a cluster of punctures near middle, lower surface otherwise impunctate. Male with anterior tarsi moderately dilated, 4 joints of each biserially squammulose. Length 10.5-11.5; width 4.1-4.6 mm.

HAITI: holotype ♂ (M. C. Z. no. 22021) and 3 ♀ paratypes from northeastern foothills La Hotte, 2,000-4,000 ft., Oct. 10-24; 1 ♂ paratype from north slope La Hotte itself, 5,000 ft., Oct. 18; all under stones and logs in damp woods and coffee plantations.

This species is very distinct from the two *Dyschromus* previously known from Haiti (*opacus* Chd. and *cupripennis* Chd.), both of which we possess, in having the elytra with impressed striae and regular intervals. It is perhaps more like the Mexican *chrysophanus* Bates, known to me only by description, but the latter has an unmargined prosternal process and probably has shallower elytral striae.

***Loxandrus mutans* n. sp.**

Rather slender and subparallel, not much depressed; black; antennae (especially basally), mouth parts and tarsi brownish testaceous; lower surface and legs brownish or rufo-piceous; head and prothorax moderately shining, elytra dull, alutaceous in both sexes, but especially so in ♀. *Head* about $\frac{3}{4}$ width prothorax; mentum tooth broad, subtruncate apically, slightly impressed along middle. *Prothorax* about $\frac{1}{4}$ wider than long; sides slightly to moderately arcuate anteriorly, moderately narrowed and sinuate posteriorly before right posterior angles; margins very narrow, evenly reflexed; disk moderately convex; middle line fine but distinct except at base and apex; transverse impressions subobsolete; fine anterior submarginal line widely interrupted at middle; basal foveae linear, rather deep, at least $\frac{1}{3}$ length prothorax; surface impunctate except vaguely punctate at middle near base. *Elytra* narrow and not much depressed, alutaceous, with fine, entire, mod-

erately impressed, finely punctulate striæ; inner intervals slightly convex, outer nearly flat; single dorsal puncture on inner side 3rd interval near middle. Metepisterna about twice as long as wide, narrowed posteriorly. Hind tarsi sulcate both sides above; 5th tarsal joint with about 3 setæ each side below. Male anterior tarsi each with first 3 joints conspicuously dilated and oblique. Length 8-9; width 2.7-3.3 mm.

HAITI: holotype ♂ (M. C. Z. no. 22022) and 19 paratypes from Etang Lachaux, Oct. 26-27; 10 paratypes from swamps north of Dessalines, Sept. 11; 1 paratype from Damien, near Port-au-Prince, A. Audant collector. My specimens were taken under trash and in loose soil a little above water level beside standing water.

This species belongs to a small group of *Loxandrus* characterized by the elytra being opaque, especially in the ♀. From *opaculus* Bates of Brazil, *mutans* differs in having the body piceous, not clear red, below; from *sculptilis* Bates of Mexico and Panama, in having the sides of the prothorax sinuate posteriorly. Both Bates' species are unfortunately known to me only by description.

COLPODES M'LEAY

In my first West Indian paper (pp. 92-93) I gave a key to the 15 insular species of *Colpodes* then known. Acquisition of more material has now more than doubled the number of species, so that a new key is necessary. In composing it, I have avoided as much as possible using the form of the metepisterna as a character, for its use results in a very unnatural classification, full of borderline species, and very difficult to use. In deference to the past classifications of Chaudoir and Bates, however, I have arranged the couplets in such a way that all species the *names* of which occur in the key up to and including couplet 21 have the metepisterna with outer edge (not including the posterior lobe which overlaps the first ventral) *not longer* by measurement than $1\frac{1}{2}$ times the length of the anterior edge. These species would fall in Chaudoir's groups I or II in his 1878 revision (Ann. Soc. Ent. France (5) 8, pp. 278-382). Species *named* in couplet 22 or below have the metepisterna with outer edge *not less* than $1\frac{1}{2}$ times the anterior, and

would fall in Chaudoir's group III. No additional material has been secured from the Lesser Antilles, where there are still 3 species recorded which are unknown to me, so the following key has been constructed to cover only the species of the Greater Antilles. In this region there is now only one described species which I do not know, *C. (Metalloso-mus) cuprascens* Mots. (Bull. Soc. Nat. Moscou 37, 1864, no. 4, p. 305), described from "St. Domingue aux Antilles." The description is superficial, but the species is evidently very different from any I have seen.

With the exception of the widely ranging *C. æquinoctialis* Chd., I know of no Colpodes which occurs either on the Greater Antilles and the mainland (I have seen at least half the known Central American species), the Greater and Lesser Antilles, any two of the greater islands, or even upon any two separate mountain ranges on a single island. They are evidently so local that I feel safe in describing West Indian species without discussing their relationship individually with the continental fauna.

*Key to Greater Antillean Colpodes (excepting cuprascens
Mots.)*

1. Tibiæ finely sulcate along extreme outer edge; tarsi strongly trisulcate above27.
Tibiæ not sulcate on outer edge; tarsi with not more than 2 sulci above2.
2. One or more supra-ocular and/or lateral thoracic setæ missing; Jamaican species3.
Two supra-orbital and 2 lateral thoracic setæ each side; species not on Jamaica, except for the widely distributed *æquinoctialis*8.
3. Two supra-ocular setæ each side4.
One supra-ocular seta (the anterior) missing5.
4. Anterior lateral thoracic seta present, posterior missing; elytra much duller than head and prothorax...
cinchonæ Darl.
Anterior seta missing, posterior present; elytra not duller than head and prothorax; (metepisterna much more elongate)22.

5. Anterior thoracic seta present, posterior missing; elytral striæ subrenulate*faber n. sp.*
Anterior seta absent, posterior present; elytral striæ smooth6.
6. Broad, prothorax about 1/3 wider than long
vagepunctatus Darl.
Slender, prothorax as wide as to 1/10 wider than long 7.
7. Elytra normal; prothorax more subquadrate, posterior angles obtuse, narrowly rounded*macer* Darl.
Elytra oval, subventricose; prothorax oval with very broadly rounded posterior angles ...*subovalis* n. sp.
8. Length 6-8 mm.; form very Agonum-like9.
Size larger10.
9. Sides of prothorax not sinuate; elytral striæ relatively shallower*agonellus* n. sp.
Sides of prothorax sinuate before base; striæ deeper...
pavens n. sp.
10. Posterior marginal seta on each side of prothorax about 1/10 prothoracic length before basal angles; elytra duller than head and prothorax11.
Said seta on or not more than 1/20 before basal angles; elytra not duller than head and prothorax13.
11. Eyes small, scarcely more prominent than genæ; prothorax not margined at middle anteriorly.....
marcus n. sp.
Eyes larger, much more prominent than genæ; prothorax with fine, entire anterior margin12.
12. Elytral striæ moderately fine; ♂ hind trochanters 1/3 length femora, unmodified*amone* n. sp.
Striæ extremely fine and superficial; ♂ hind trochanters 2/5-1/2 length femora, bluntly pointed
wolla n. sp.
13. Hind tarsi with 4th joint emarginate, outer lobe formed about like inner and not much longer; habits not riparian14.
Hind tarsi with 4th joint emarginate, outer lobe much longer than inner; species associated with running water26.
14. Elytral striæ interrupted23.
Elytral striæ (except rarely the outer ones) not interrupted15.

15. Prothorax not narrowed basally, base broad as middle 24.
 Prothorax more or less narrowed basally 16.
16. Metepisterna with outer edge not over $\frac{1}{2}$ longer than anterior 17.
 Outer edge metepisterna about $2 \times$ length anterior edge 25.
17. Head relatively small, less than $\frac{2}{3}$ width prothorax, genæ not prominent, oblique, barely convex in profile; mentum tooth finely pointed (northern Haiti) 18.
 Head larger, about $\frac{7}{10}$ or more width prothorax, genæ convex and prominent; mentum tooth blunt or emarginate (southern Haiti) 19.
18. Prothorax subquadrate with posterior angles almost right; not margined at middle anteriorly; δ posterior trochanters acuminate, $\frac{3}{5}$ length femora
christophe n. sp.
 Prothorax with sides much rounded and posterior angles obtuse; anterior margin fine but entire; δ posterior trochanters probably not acuminate
cychrinus n. sp.
19. More slender and depressed; prothorax finely margined anteriorly (see also under description) (La Hotte) ..
constricticeps n. sp.
 Stouter; prothorax not margined at middle anteriorly (La Selle) 20.
20. Larger and broader, with head relatively narrower; margins of prothorax moderately to broadly explanate 21.
 Slightly smaller and narrower, head relatively broader; margins of prothorax rather narrowly explanate (see description for final identification) *tipoto* n. sp.
21. Prothorax subquadrate, base $\frac{1}{4}$ or more wider than apex, margins moderately explanate; posterior dorsal puncture of elytra present *jægeri* Dej.
 Prothorax subcordate, base $\frac{1}{10}$ to $\frac{1}{7}$ wider than apex, sides rather widely explanate; posterior elytral puncture missing *subcordens* n. sp.
22. Brown; external elytral striæ punctulate. *punctus* n. sp.
 Bluish purple; striæ not punctulate. *bruesi* n. sp.
23. (No alternative) *fractilinea* Darl.

JAMAICA: holotype (M. C. Z. no. 21992) and 3 paratypes from Blue Mt. Forest Reserve (main range Blue Mts.), 5,000-6,000 ft., Aug. 17-19, 1934; under stones and chips in wet forest. Unfortunately all are ♀ ♀. The species is very isolated, taxonomically.

***Colpodes subovalis* n. sp.**

Slender anteriorly, but rather ventricose; piceous, lower surface and legs a little reddish, antennæ and palpi testaceous, former infusate on 3 basal joints; rather shining, elytra not duller. *Head* elongate and slender, less than $\frac{3}{4}$ width prothorax; eyes moderately prominent, genæ oblique, not prominent; anterior supra-ocular seta missing; antennæ slender, 7th joint reaching about to base prothorax; mentum tooth broad, blunt or almost pointed. *Prothorax* rather small, $\frac{1}{10}$ or less wider than long, suboval, slightly variable in outline, broadest at or behind middle; sides arcuate from base to apex *or* nearly straight and converging anteriorly and (less distinctly) posteriorly; basal angles broadly rounded, anterior angles better defined but scarcely prominent; margins rather narrowly explanate; posterior marginal seta a little before angle, anterior missing; disk convex, impressed as usual, basal foveæ moderately deep but not sharply defined, each with a vague depressed area extending forward nearly to apex; base and apex finely margined; surface slightly roughened basally but not distinctly punctate. *Elytra* much (about $\frac{3}{4}$) wider than prothorax, suboval, widest behind middle; sides straight and converging anteriorly; humeri broadly rounded; margins slightly sinuate before apices, which are independently pointed but not much produced; striæ deep, not punctate; intervals convex, 3rd 3-punctate as usual. *Metepisterna* with outer margins fully $\frac{1}{2}$ longer than anterior; *mesepisterna* somewhat punctate, lower surface otherwise impunctate. *Tibiæ* not sulcate on outer edge; hind tarsi grooved each side above, less strongly internally, sulci not approximate, 4th joint emarginate, outer lobe much produced; front tarsi not distinctly grooved. Length 12.5-14; width 4.2-4.7 mm.

JAMAICA: holotype ♂ (M. C. Z. no. 21993) and 8 paratypes from Portland Gap, Blue Mt. Forest Reserve, main

range Blue Mts., about 5,000 ft., Aug. 17-19, 1934; in piles of dead vegetation and cracks in rotten logs.

Related to *C. macer* Darl. of Cinchona, Blue Mts., but differing notably in form.

Colpodes agonellus n. sp.

Small, broad, moderately depressed, very like an *Agonum* (*s. str.*) of the *melanarium* group; piceous to black, suture and margins of elytra sometimes reddish, appendages brownish; surface moderately shining, with microscopic silky alutaceous sculpture, elytra not duller. *Head* normal, between $\frac{3}{5}$ and $\frac{2}{3}$ width prothorax; eyes moderately prominent, genæ short and oblique; both supra-ocular setæ present; antennæ moderate, apex 7th joint reaching about to base prothorax; mentum tooth triangular, narrowly rounded at apex. *Prothorax* rather broad, about $\frac{1}{2}$ wider than long; base almost truncate, $\frac{1}{4}$ (more or less) wider than apex; sides nearly evenly rounded except sometimes faintly sinuate before the obtuse but fairly distinct posterior angles; margins translucent, narrowly explanate anteriorly, broader posteriorly, each with usual 2 setæ; base and apex finely margined; disk moderately convex, depressed at sides basally but without distinct foveæ; middle line well impressed, transverse impressions vague; surface not distinctly punctate. *Elytra* broad, not quite $\frac{1}{2}$ wider than prothorax; humeri somewhat rounded but distinct; margins moderately sinuate before apices, latter subindependently rounded or subtruncate, not produced; striæ moderately impressed, impunctate; 3rd interval 3-punctate, first puncture nearly on 3rd, second and third punctures on 2nd stria. *Metepisterna* with outer edges about $\frac{1}{2}$ longer than anterior; inner wings dimorphic, full or reduced; body below impunctate. *Tibiæ* not sulcate on outer edge; posterior tarsi sulcate each side above, sulci not approximate, 4th joint rather small, simply emarginate; anterior tarsi lightly or not distinctly sulcate. Length 6.5-7.5; width 2.7-3.3 mm.

HAITI: holotype ♂ (M. C. Z. no. 21994) and 80 paratypes from La Visite and vicinity, 5,000 (on Mt. Bourette) —7,000 ft., La Selle Range, Sept. 16-23, 1934; under various cover on the ground in cloud forest and damp gullies.

For comparisons, see under the following species.

Colpodes pavens n. sp.

So similar to the preceding, *C. agonellus*, as to answer to the description of that species with the following changes: Color somewhat more brownish piceous. *Head* about $2/3$ width prothorax. *Prothorax* relatively narrower, $1/3$ wider than long; base $1/5$ wider than apex; sides sinuate before the posterior angles, which are relatively prominent and approximately right, although more or less finely blunted; margins finer. *Elytra* relatively a little narrower, $2/5$ wider than prothorax; striæ distinctly deeper; intervals more convex. Length 6.5 (slightly more or less); width about 2.6 mm.

HAITI: holotype ♂ (M. C. Z. no. 21995) and 3 paratypes, taken with the preceding species.

These species, *agonellus* and *pavens*, are among the most slightly specialized Colpodes, with the 4th joint of the posterior tarsus scarcely more emarginate, although somewhat shorter and broader, than in, for example, *Agonum melanarium* Dej. of the United States. They recall the Mexican Colpodes of the *nugax* group, but the latter resemble Anchomenus more closely than *Agonum s. str.*

Colpodes marcus n. sp.

Rather elongate and convex, appendages shorter than average; piceous, appendages scarcely paler; head and prothorax moderately shining, elytra somewhat duller. *Head* large, $4/5$ or slightly less width prothorax, but appearing wider; eyes small, hardly at all prominent; genæ oblique, only slightly convex in profile, neck very little narrowed; 2 supra-ocular setæ each side; antennæ rather short, reaching about to base prothorax; mentum tooth triangular, pointed or somewhat blunted. *Prothorax* as long to about $1/8$ longer than wide, subquadrate, slightly narrowed anteriorly and posteriorly, base about wide as apex; sides slightly, broadly arcuate, faintly sinuate at posterior marginal bristle; margins very narrow, each with usual 2 setæ, the posterior $1/10$ or more before base; posterior angles rounded, but not very broadly so; base finely margined, apex not; disk convex except depressed near posterior

angles to form shallow, poorly defined foveæ, vaguely extended anteriorly; middle line distinct, transverse impressions weak; surface impunctate. *Elytra* rather narrow, about $\frac{1}{3}$ wider than prothorax; humeri distinct; sides arcuate-parallel at middle, weakly sinuate before more or less independently rounded but not produced apices; striæ rather lightly impressed, impunctate; intervals barely convex, 3rd 3-punctate, punctures nearly on 3rd (1) and 2nd (2 & 3) striæ. Metepisterna with outer and anterior margins about equal; lower surface impunctate. Tibiæ not sulcate on outer edge; hind tarsi sulcate above externally, at most faintly so internally, 4th joint about rectangularly emarginate, not much lobed externally; front tarsi not distinctly sulcate; ♂ posterior trochanters more or less pointed, about $\frac{1}{2}$ length femora. Length 10-13; width 3.7-4.0 mm.

HAITI: holotype ♂ (M. C. Z. no. 21996) and 47 paratypes from Mt. La Hotte, 5,000-7,800 ft., Oct. 16-17, 1934; 1 paratype from Roche Croix, on a spur of La Hotte, 5,000 ft., Oct. 13; under cover on the ground and in rotten logs in wet cloud forest.

I have named this species for my cook and number one boy on my La Hotte trip, Marc Jacques; the two following are named for my porters.

Colpodes wolla n. sp.

Rather elongate, convex, more lightly built than *marcus*; piceous, antennæ somewhat paler, legs scarcely so; head and prothorax moderately shining, elytra rather strongly alutaceous. *Head* $\frac{2}{3}$ or slightly more width prothorax; eyes rather small but somewhat prominent; genæ sub-oblique, slightly convex but not very prominent; 2 supra-ocular setæ each side; antennæ average, 9th joint reaching about to base prothorax; mentum tooth pointed or slightly blunted. *Prothorax* subquadrate, as long or slightly longer than wide, slightly narrowed posteriorly and anteriorly; base slightly wider than apex; sides broadly and evenly rounded, sometimes faintly sinuate posteriorly; margins narrowly explanate, each with usual 2 setæ, the posterior about $\frac{1}{10}$ before base; posterior angles obtuse, narrowly rounded; base finely margined, apex variably so; disk very

convex, almost gibbous except broadly depressed near posterior angles to form rather poorly defined but deep foveæ, which are continued forward parallel to margins as usual, not punctate; discal impressed lines as usual. *Elytra* a little (about $3/10$) wider than prothorax, a little less parallel than in *marcus*, very convex; humeri distinct; subapical sinuation slight; apices more or less independently narrowly rounded; striæ excessively fine but entire; intervals flat, 3rd with 3 dorsal punctures as in preceding species. Metepisterna with outer and anterior edges about equal; lower surface impunctate. Tibiæ not sulcate on outer edge; posterior tarsi above lightly grooved externally, not or faintly internally, 4th joint moderately deeply emarginate, outer lobe a little longer than inner; front tarsi not distinctly sulcate; ♂ posterior trochanters somewhat pointed, about $1/2$ length femora. Length 11-14; width 3.8-4.4 mm.

HAITI, MASSIF DE LA HOTTE: holotype ♂ (M. C. Z. no. 21997) and 3 paratypes from ridge just above Roche Croix, on a spur of Mt. La Hotte, 5,000 ft., Oct. 13; 1 ♂ from N. slope La Hotte, 5,000 ft., Oct. 14; 1 ♀ from Desbarrière, about 4,000 ft., Oct. 13; 2 ♂ ♀ from first rain forest on auto road N. of Camp Perrin, about 3,000 ft., Oct. 21; all taken in loose leaf mold and under loose bark of dead trees in wet forest.

Colpodes amone n. sp.

So similar to the preceding, *wolla*, as to answer to the description of that species except as follows: Smaller and more graceful; slightly less convex. *Head* relatively a trifle wider; antennæ with 7th joint reaching about to base prothorax. *Prothorax* with fine anterior margin more distinct. *Elytra* scarcely or not sinuate on outer margin before apex (sometimes scarcely so in *wolla*); striæ slightly more distinct but still fine. Posterior trochanters of ♂ short, rounded-truncate as in ♀. Length 10-11.5; width 3.7-3.9 mm.

HAITI: holotype ♂ (M. C. Z. no. 21998) and 7 paratypes from on and near summit La Hotte, about 7,000-7,800 ft., Oct. 16-17, 1934; in moss and loose leaf mold in forest.

Colpodes christophe n. sp.

Very large, rather broad and depressed; black, moderately shining, elytra very slightly duller; appendages piceous. *Head* barely more than $\frac{3}{5}$ width prothorax; eyes small but somewhat prominent; genæ oblique, slightly convex, not prominent; 2 supra-ocular setæ each side; antennæ rather short, 9th or 10th joint reaching base prothorax; mentum tooth finely pointed. *Prothorax* large, subquadrate, $\frac{1}{5}$ or $\frac{1}{6}$ wider than long; base squarely truncate, not quite $\frac{1}{4}$ wider than apex; sides slightly arcuate anteriorly, broadly, slightly sinuate before posterior angles, which are almost right, with apices very narrowly rounded; side margins broadly but not strongly explanate, each with 2 setæ; base finely margined, apex not; disk rather flat, impunctate, depressed postero-laterally to form moderately deep, not very well defined foveæ which extend anteriorly to or before middle; other impressed lines as usual. *Elytra* not much (δ not quite $\frac{1}{5}$, ♀ not quite $\frac{3}{10}$) wider than prothorax, moderately convex; sides arcuate-subparallel at middle, slightly sinuate before apices, which are narrowly, subindependently rounded; humeri distinct; striæ somewhat impressed, entire, not punctate except for usual 3 dorsal punctures attached to 3rd interval; intervals somewhat convex. Metepisterna with outer edge somewhat longer than anterior; lower surface not punctate. Tibiæ not sulcate on outer edge; posterior tarsi finely grooved above externally, less strongly so internally, 4th joint moderately deeply emarginate, not distinctly lobed; anterior tarsi finely grooved at sides in ♀ , not in δ ; δ posterior trochanters about $\frac{3}{5}$ length femora, suddenly narrowed just before middle of femoral length, thence very slender to apex; ♀ trochanters slightly less than $\frac{1}{2}$ length femora, but with apices subtuberculate at point corresponding to δ apical process. Length 17-18; width 6-6.2 mm.

HAITI: holotype δ (M. C. Z. no. 22001) and 1 ♀ paratype from summit plateau of Mt. Basil, northern Haiti, 4,700 ft., Sept. 9, 1934; under stones in a tiny garden recently cleared from cloud forest.

This is one of the largest and finest species of the whole great genus *Colpodes*.

Colpodes cychrinus n. sp.

Rather large, broad, subdepressed; black, moderately shining, elytra scarcely duller, appendages red-piceous. *Head* relatively narrow, between $\frac{1}{2}$ and $\frac{3}{5}$ width prothorax, structure as in *christophe*. *Prothorax* wide, about 45/100 wider than long; base truncate, about $\frac{1}{3}$ wider than apex; sides rather strongly arcuate throughout, with margins even broader and more strongly explanate than in *christophe*; posterior angles obtuse, but only very narrowly rounded; base and apex finely margined; disk about as in *christophe*. *Elytra* not much ($\frac{1}{4}$, more or less) wider than prothorax, rather short, not or faintly sinuate near apex; striæ a little shallower, intervals flat or nearly so; otherwise as in *christophe*. Characters of lower surface and legs (♀) as in *christophe* except hind trochanters (♀) only about $\frac{1}{3}$ length femora, broad and not tuberculate at apex.

HAITI: holotype ♀ (M. C. Z. no. 22002) and 2 ♀ paratypes, all with the same data as the types of *christophe*.

Closely related to *christophe*, but the prothorax is strikingly different in shape, and the hind trochanters are not modified in the ♀ and probably not in the ♂, for in the three species I know with modified ♂ trochanters (*christophe*, *marcus*, and *wolla*) there is a corresponding but slighter modification in the ♀.

Colpodes jægeri (Dej.)

Dejean 1831, Spec. Coleop. 5, 728 (Anchomenus)

Chaudoir 1859, Ann. Soc. Ent. France (3) 7,315

Chaudoir 1878, l. c. (5) 8,280 & 300

Darlington 1934, Psyche 41, 92 (in key)

HAITI: summit of Morne Tranchant, Massif de la Selle (but not main range), about 6,000 ft., Nov. 11, 1934; 4 specimens, both sexes. These agree very well with Dejean's and Chaudoir's (1859) long descriptions.

Colpodes subcordens n. sp.

Moderately broad, average convexity; black, moderately shining, elytra not duller (whole surface sometimes obscured by a thin, tenaceous coating of foreign matter);

appendages red-piceous. *Head* about $\frac{2}{3}$ width prothorax, formed as in *jægeri*, with genæ very convex in profile, scarcely less prominent than eyes; 2 supra-ocular setæ each side; antennæ average, apex 8th joint reaching to about base prothorax; mentum tooth variable, with apex bluntly rounded, subtruncate, or emarginate, channeled along middle. *Prothorax* subcordate, $\frac{1}{3}$ or slightly less wider than long, base only slightly ($\frac{1}{10}$ - $\frac{1}{7}$) wider than apex; sides strongly, often rather irregularly rounded anteriorly, very slightly to moderately sinuate before the slightly obtuse, very narrowly rounded or blunted posterior angles; margins rather widely explanate, each with usual 2 setæ; base finely margined, apex not distinctly so; disk with usual impressions, as in *jægeri*, impunctate. *Elytra* as in *jægeri* except a little more narrowed basally, with sides less parallel; humeri distinct; striæ deep, impunctate; intervals convex, 3rd 2-punctate, about $\frac{1}{4}$ from base and at middle, 3rd (posterior) puncture uniformly missing. Metepisterna with outer edges only slightly longer than anterior; lower surface impunctate. Tibiæ not sulcate externally; posterior tarsi sulcate each side above, but inner sulcus sometimes indistinct, sulci not approximate, 4th joint moderately deeply emarginate but only slightly lobed externally; anterior tarsi not distinctly grooved at sides in either sex. Length 12-15; width 4.6-5.5 mm.

HAITI: holotype ♂ (M. C. Z. no. 22003) and 17 paratypes from La Visite and vicinity, main La Selle range, 5,000-7,000 ft., Sept. 16-23, 1934; under stones and in damp moss and loose leaf mold in cloud forest.

Colpodes tipoto n. sp.

Form about average, less broad than in *jægeri* and *subcordens* and more subparallel; piceous black, lower surface and appendages rufescent; moderately shining, elytra not duller. *Head* formed as described for *subcordens* but relatively broader, about $\frac{3}{4}$ width prothorax; antennæ slightly shorter; mentum tooth blunted triangular. *Prothorax* subquadrate, $\frac{1}{4}$ wider than long; base truncate, about $\frac{1}{10}$ wider than apex; sides less rounded than in preceding species, straight or faintly sinuate before obtuse but distinct basal angles; margins narrowly explanate, each with

2 setæ; base finely margined, apex not; disk about as in *jægeri* and *subcordens*. *Elytra* slightly (barely over $\frac{1}{4}$) wider than prothorax; sides subparallel, faintly narrowed in basal $\frac{1}{2}$; humeri distinct; sides slightly sinuate before apices; latter narrowly subindependently rounded; striæ moderately deep but less so than in 2 preceding species, impunctate; intervals moderately convex, 3rd with anterior and middle punctures present, posterior missing. Metepisterna and lower surface as in *subcordens*, as are also tibial and tarsal characters. Length 10.5-11; width between 3.5 & 4.0 mm.

HAITI: holotype ♂ (M. C. Z. no. 22004) and 1 ♀ paratype from vicinity La Visite, main range La Selle, about 6,500 ft., Sept. 16-23, 1934; under deeply buried logs in cloud forest.

Named for the headman of the porters whom Dr. Marston Bates, Mr. André Audant, and I had with us on our La Selle trip.

Colpodes constricticeps n. sp.

Rather slender, subdepressed; piceous, lower surface and appendages a little more rufescent; moderately shining, elytra not duller. *Head* large, about $\frac{4}{5}$ width prothorax; eyes small but slightly prominent; genæ convex, prominent, head behind them rather strongly constricted (for *Colpodes*) at sides and across occiput; 2 supra-ocular setæ each side; antennæ moderate, 8th joint about opposite base prothorax; mentum tooth rather broad, apex slightly, rather broadly emarginate (probably variable). *Prothorax* elongate-cordate, just over $\frac{1}{10}$ wider than long; base squarely truncate, as wide as apex; sides arcuate anteriorly, broadly sinuate before right posterior angles; margins narrowly explanate, each with usual 2 setæ; base and apex finely margined; disk as in *jægeri* or *subcordens* except transverse impressions rather better defined and surface at extreme base (behind posterior transverse impression) irregularly transversely subrugose. *Elytra* elongate, about $\frac{2}{7}$ wider than prothorax, somewhat depressed (much more than in *jægeri* and allies), widest about $\frac{1}{3}$ from apex; sides almost straight and converging in more than anterior $\frac{1}{2}$; humeri distinct but narrow and rather rounded,

humeral marginal line strongly angulate (arcuate in *jægeri* and allies); subapical sinuation slight; apices independently narrowly rounded; striæ moderately impressed, impunctate; intervals a little convex, 3rd with 2 punctures, near middle and $\frac{1}{4}$ from apex, basal puncture missing. Lower surface and characters of tibiæ and tarsi as described for *subcordens*, except 4th joint hind tarsi not at all more lobed externally than internally. Length 11; width 3.6 mm.

HAITI: holotype ♂ (M. C. Z. no. 22005), unique, from summit Mt. La Hotte, about 7,800 ft., Oct. 16, 1934; under a deeply buried stone in damp, mixed forest.

A very distinct species, though related to the *jægeri* group. The absence of the anterior dorsal puncture of elytra is probably not a character of much significance, for the puncture is absent in one specimen of my series of *subcordens* and is known to be either present or absent in at least one other Colpodes, *haptoderoides* Bates of Mexico (Trans. Ent. Soc. London 1891, p. 252).

Colpodes punctus n. sp.

Moderately elongate and depressed; dark brown, appendages a little paler; rather shining, elytra not duller. *Head* $\frac{4}{5}$ width prothorax; eyes moderately prominent; genæ oblique, not prominent; 2 supra-ocular setæ each side; antennæ moderately elongate, 7th joint about opposite base prothorax; mentum tooth slender, pointed. *Prothorax* rather small, rounded-subquadrate, barely wider than long; base very slightly lobed at middle, rounded-oblique at sides, slightly wider than apex; sides evenly, not strongly rounded, margins very narrowly explanate, anterior lateral seta missing; basal angles rounded-obtuse; base and apex finely margined; disk with middle line fine but distinct, transverse impressions vague; basal foveæ moderate, rounded, with usual vague anterior extension, punctate-rugose, base of pronotum behind transverse impression also rugulose. *Elytra* much (about $\frac{3}{4}$) wider than prothorax, moderately elongate; humeri distinct; sides nearly parallel at middle, slightly sinuate before apices, which are irregularly, almost conjointly rounded; disk rather depressed; striæ moderate, inner ones faintly, outer ones much more distinctly punctulate; intervals flat or slightly convex, 3rd 3-punctate.

Metepisterna very elongate; they, sides of metasterna, mesepisterna, first ventral, and a small part of sides of prosternum closely, not very coarsely punctate. Tibiæ not sulcate on outer edge; hind tarsi not distinctly grooved above, 4th joint deeply emarginate, strongly lobed externally; front tarsi exceptionally broad in both sexes, not distinctly sulcate above. Length 11.5-13; width 4.2-4.6 mm.

JAMAICA: holotype ♂ (M. C. Z. no. 22006) and 6 paratypes from Cinchona (Blue Mts.), 5,000 ft., Jan. 1912, C. T. Brues collector.

Colpodes bruesi n. sp.

Elongate; purplish blue-black, metallic color stronger on elytra, lower surface and legs rufopiceous, antennæ dark; surface rather shining, elytra not duller. *Head* about $\frac{3}{4}$ width prothorax, elongate; eyes prominent; genæ oblique, not prominent; 2 supra-ocular setæ each side; antennæ slender, 6th or 7th joint about opposite base prothorax; mentum tooth acutely pointed. *Prothorax* barely wider than long, subquadrate oval; base about $\frac{1}{3}$ wider than apex, formed as in *punctus*; sides evenly, not strongly rounded, margins moderate, much wider than in *punctus*, anterior seta missing; basal angles obtuse, almost rounded; base and apex finely margined; disk almost as in *punctus* except basal foveæ more distinctly extended forward; foveæ and base rather lightly punctate. *Elytra* much ($\frac{3}{4}$) wider than prothorax, disk rather depressed; humeri distinct; sides slightly convergent in anterior $\frac{1}{2}$, slightly sinuate before the apices, which are independently subangulate; striæ rather fine, impunctate; intervals faintly convex, 3rd 3-punctate. Metepisterna very elongate; sides of body below rather indistinctly punctate. Tibial and tarsal characters as in *punctus*. Length 15.5; width 5.5 mm.

JAMAICA: holotype ♂ (M. C. Z. no. 22007), unique, from Newton, 3,000 ft., Jan., 1912, C. T. Brues collector.

Colpodes visitor n. sp.

Broadly subfusiform; rather shining black or piceous, elytra sometimes faintly æneous, lower surface and legs rufopiceous, mouth parts and antennæ rufous. *Head* small,

a trifle less than $\frac{2}{3}$ width prothorax; eyes prominent; genæ short, oblique or slightly convex in profile; 2 supra-ocular setæ each side; antennæ average, 8th joint reaching opposite or beyond base prothorax; mentum tooth a little bluntly pointed. *Prothorax* about $\frac{1}{3}$ wider than long, not narrowed behind, strongly so in front; base squarely truncate, more than $\frac{1}{2}$ wider than apex; sides parallel in basal $\frac{1}{2}$, arcuate-converging anteriorly; margins narrowly explanate, each with 2 setæ; basal angles right, scarcely blunted; base and apex finely margined; disk with middle line fine but distinct, transverse impressions vague; basal foveæ rather deep, irregular, impunctate, vaguely prolonged anteriorly as usual. *Elytra* moderately ($\frac{45}{100}$) wider than prothorax, rather short; humeri distinct; sides parallel at middle, sinuate before the independently rounded apices; striæ moderately deep, inner ones impunctate, outer irregular, faintly punctulate or interrupted; intervals somewhat convex, 3rd 3-punctate as usual. Metepisterna with outer edges fully $\frac{1}{2}$ longer than anterior; body below not punctate. Tibiæ not grooved on outer edge; hind tarsi sulcate each side above, sulci not approximate, 4th joint moderately emarginate, scarcely lobed externally; front tarsi not distinctly grooved above. Length 9-10.5; width 3.7-4.1 mm.

HAITI: holotype ♂ (M. C. Z. no. 22008) and 13 paratypes from La Visite and vicinity, La Selle Range, about 6,000 ft., Sept. 16-23, 1934; in cracks in rotten logs and under loose bark and similar cover in cloud forest.

***Colpodes baragua* n. sp.**

Colpodes sp. Darl. 1934, Psyche 41, pp. 93 (in key) & 97

Form Anchomenus-like; black, shining, appendages brownish piceous. *Head* about $\frac{3}{4}$ width prothorax; eyes prominent; genæ short and oblique; 2 supra-ocular setæ each side; antennæ rather slender, 7th joint reaching beyond base prothorax; mentum tooth with apex narrowly rounded. *Prothorax* cordate, $\frac{1}{4}$ wider than long, rather strongly narrowed in front and behind; base squarely truncate at middle, slightly oblique at sides, about $\frac{15}{100}$ wider than apex; sides strongly arcuate anteriorly, strongly sinuate before the right posterior angles; margins rather

narrowly explanate, each with 2 setæ; base and apex finely margined; disk impressed as usual, basal foveæ relatively small and deep, impunctate. *Elytra* much (about 2/3) wider than prothorax; humeri distinct; sides subparallel, though *slightly* converging anteriorly in anterior 1/2, sinuate before the subindependently narrowly rounded apices; striæ moderately deep, impunctate on disk, lightly punctate externally; intervals more or less convex, 3rd 3-punctate. Metepisterna elongate; mesepisterna somewhat punctate, lower surface otherwise impunctate. Tibiæ not grooved on outer edge; posterior tarsi sulcate each side above, sulci not approximate, 4th joint moderately emarginate, not more lobed externally than internally; front tarsi vaguely sulcate. Length 10.5; width about 4 mm.

CUBA: holotype ♀ (M. C. Z. no. 22009), unique, from Baraguá (Camagüey), May 7, 1928, at light, L. C. Scaramuzza collector; from the collection of the Tropical Plant Research Foundation, now at the Harvard research station at Soledad. The specimen previously recorded by me was from Somorrostro (Havana), Barro collector.

This species is strongly winged and found at low altitudes, and I at first thought it might occur also in Central America and have been previously described, but I cannot identify it with any Central American species.

Colpodes æquinoctialis (Chd.)

Stenocnemis jägeri Mann.

Colpodes mannerheimi Chd.

A series which I took in Haiti and Jamaica is not distinguishable from our specimens from Mexico, Panama, and Peru.

Colpodes altifluminis n. sp.

Moderately elongate; shining piceous, lower surface and legs very slightly, antennæ and palpi more distinctly rufescent. *Head* 3/4 width prothorax, formed as in *æquinoctialis*, with prominent eyes and oblique, not prominent genæ; 2 supra-ocular setæ each side; antennæ moderately slender, 7th joint reaching about to base prothorax; mentum tooth subtruncate or slightly emarginate at apex. *Prothorax* subcordate, 1/4 (more or less) wider than long,

formed somewhat as in *æquinocialis* but with anterior angles much less prominent; base truncate at middle, rounded-oblique at sides, 1/10 or slightly more wider than apex; sides moderately, somewhat irregularly arcuate anteriorly, briefly sinuate before posterior angles, which are right or slightly obtuse, very narrowly blunted; explanate margins rather narrow, each with 2 setæ; base finely margined, apex rather indistinctly so; disk convex, with usual fine middle line and poorly defined transverse impressions; basal foveæ rather deep, round, only vaguely prolonged anteriorly, impunctate. *Elytra* considerably (not quite 2/3) wider than prothorax, of moderate length, shorter and with base more narrowed than in *æquinocialis*, and with humeri more broadly rounded, though not entirely obliterated; sides moderately sinuate before apices, which are rather narrowly independently rounded, sometimes vaguely subangulate; striæ fine, shallow, finely irregular and interrupted; intervals flat or slightly convex, 3rd 3-punctate. Metepisterna with outer edges a little more than 1/2 longer than anterior edges, distinctly shorter than in *æquinocialis*, although both species are winged; lower surface impunctate. Tibiæ not sulcate on outer edge; hind tarsi sulcate each side above, sulci not closely approximate although tarsi are slender, 4th joint rather deeply emarginate, outer lobe much longer than inner; front tarsi more or less indistinctly sulcate above (these characters as in *æquinocialis*, but all sulci less impressed in *altifluminis*). Length 11-11.5; width 3.8-4.0 mm.

HAITI: holotype ♂ (M. C. Z. no. 22010) and 8 paratypes from vicinity of La Visite, main La Selle Range, about 6,000 ft., Sept. 16-23, 1934; taken among loose stones and in piles of drift beside the stream called by the local Negroes the "Rivière Blanche."

***Colpodes latelytra* n. sp.**

Form about as in *C. chalybeus* Dej., but elytra relatively wider; dark bluish black with faint greenish iridescence in some lights, moderately shining; appendages black. *Head* rather small but with prominent eyes (not quite so prominent as in *chalybeus*), 5/6 width prothorax; genæ short and oblique; 2 supra-ocular setæ each side; antennæ aver-

age, 8th joint about opposite base prothorax; mentum tooth narrowly blunted at apex. *Prothorax* small, subcordate but not strongly narrowed basally, about $1/8$ wider than long; base truncate at middle, rounded-oblique at sides, about $1/5$ wider than apex; sides arcuate in anterior $3/4$, moderately sinuate before the right, narrowly blunted basal angles; margins rather narrowly explanate anteriorly, somewhat broader posteriorly, each with posterior seta present, anterior missing (as in *chalybeus*); disk somewhat convex, middle line and anterior transverse impression fine but distinct, posterior transverse impression vague; basal foveæ deep but not sharply defined, very distinctly prolonged to middle, less distinctly nearly to apex; surface within and near foveæ and across base transversely wrinkled-rugulose. *Elytra* subquadrate, virtually twice as wide as prothorax (in *chalybeus* about $1\ 7/10$ times width prothorax); humeri rounded but not narrowed; sides faintly sinuate before independently narrowly rounded apices; disk convex; striæ slightly impressed, faintly punctulate, except 2 external striæ each side, and all striæ at apex, much deeper and impunctate; intervals broad and slightly convex except 8th and 9th, and all at apex, narrow and very convex; 3rd finely 3-punctate. Metepisterna very elongate; inner wings full; body not punctate below. Tibiæ finely grooved along middle of outer edge; posterior tarsi strongly grooved each side and at middle above, grooves approximate so joints seem bicarinate, 4th joint emarginate, outer lobe somewhat longer than inner; front tarsi also grooved both laterally and at middle (these tibial and tarsal characters about as in *chalybeus*). Length 7.6; width about 3.2 mm.

JAMAICA: holotype ♂ (M. C. Z. no. 22011), unique, from main range Blue Mts., about 5,000 ft., Aug. 17, 1934; shaken from a pile of dead, cut grass in a narrow road through forest at Portland Gap, Blue Mt. Forest Reserve.

Allied to *C. chalybeus* Dej. (Lesser Antilles to Brazil), of which we have specimens, but with broader elytra, with 8th and 9th intervals differently modified.

***Agonum* (s. s.) *laetificum* n. sp.**

Moderately broad, rather depressed; head and prothorax

moderately shining black, faintly greenish, elytra shining greenish coppery with margins not different; lower surface and appendages piceous. *Head* just under $\frac{2}{3}$ width prothorax; eyes only moderately prominent; genæ short and oblique; antennæ average, apex of 8th joint reaching about to base prothorax; mentum tooth acute. *Prothorax* rather large, rounded, just over $\frac{1}{3}$ wider than long; sides arcuate from base to apex, margins rather narrowly explanate; posterior angles broadly rounded; base and apex finely margined; disk only slightly convex, middle line fine, transverse impressions vague, basal foveæ rather shallow, not sharply defined, only vaguely continued anteriorly, not punctate. *Elytra* moderately (about $\frac{2}{5}$) wider than prothorax; humeri somewhat rounded but not narrowed; sides arcuate-subparallel at middle, sinuate before the apices, which are subindependently rounded; striæ moderate, not less impressed at apex, impunctate; intervals flat or slightly convex, polished, 3rd 3-punctate, first puncture attached to 3rd, 2nd and 3rd punctures to 2nd striæ. Metepisterna with outer edges a little more than $\frac{1}{2}$ longer than anterior; inner wings full. Tibiæ not sulcate on outer edge; hind tarsi with 3 basal joints sulcate each side, 4th not sulcate, shallowly emarginate; front tarsi not sulcate, at least in δ . Length 7.7; width 3.0 mm.

HAITI: holotype δ (M. C. Z. no. 22023), unique, from summit plateau Mt. Basil, 4,700 ft., Sept. 9; among loose dead leaves on the ground in a small patch of wet cloud forest.

Very similar to *Agonum cupripenne* Say, especially to the form with the disk of elytra not strongly coppery, and probably an actual relative of that species, but broader and more depressed, with pronotum scarcely metallic, and without the conspicuous, bright green, strongly alutaceous margin of elytra of *cupripenne*.

Chlaenius jamaicae n. sp.

Form average; head and prothorax rather shining dark bluish or green, elytra dark dull bluish; lower surface including epipleuræ dark; appendages testaceous, antennæ a little brownish. *Head* $\frac{3}{4}$ width prothorax; eyes prominent; front very finely punctulate; clypeus and labrum slightly

emarginate; antennæ with 3rd joint equal to 4th, 7th about opposite base prothorax. *Prothorax* subcordate, $\frac{1}{5}$ or $\frac{1}{4}$ wider than long, moderately narrowed in front and behind; base truncate, $\frac{1}{4}$ wider than apex; sides arcuate through most of length, briefly and not strongly sinuate basally, narrowly margined, lacking anterior seta as usual; basal angles slightly obtuse, narrowly blunted; disk convex, impressed and foveate as usual, rather closely punctate and slightly alutaceous across base, sparsely punctate and shining anteriorly, with narrow impunctate area each side near middle. *Elytra* about $\frac{2}{5}$ wider than prothorax, convex, very slightly narrowed basally; humeri rounded but not obliterated, marginal line arcuate; striæ rather fine, faintly punctulate; intervals nearly flat, very finely granulate-opaque, pubescence shorter and less obvious than usual. Prosternum margined at apex; metepisterna about $\frac{1}{2}$ longer than wide; sides of body below and entire abdomen rather finely punctate-pubescent. Femora and tarsi not densely pubescent above; ♂ with front femora not modified, middle tibiæ not pubescent at apex. Length 11-12.5; width 4.1-4.8 mm.

JAMAICA: holotype ♂ (M. C. Z. no. 22024) and 8 paratypes from Ocho Rios, Aug. 20-24; 1 paratype each from Rio Cobre, 5 mi. above Spanishtown, Aug. 29 and between Kingston and Spanishtown, Aug. 29; all taken under cover beside ponds, swamps, or rivers.

Very close indeed to *Chlænius viridicollis* Reiche and *C. obscuripennis* Chev., both of Mexico and both represented by small series in our collection (the two may be identical), but differing in the conspicuously shorter pubescence of elytra.

***Stenocrepis* (s. s.) *palustris* n. sp.**

Subparallel, moderately broad and convex; black, moderately shining, only slightly æneous with margins of elytra scarcely more so; lower surface and legs piceous; tarsi, palpi, and bases of antennæ more or less rufescent. *Head* a little over $\frac{1}{2}$ width prothorax, but appearing narrower; formed as in *12-striatus* (Chev.) and similarly finely, closely subpunctulate; mentum tooth short, wide, blunt. *Prothorax* a trifle over $\frac{2}{5}$ wider than long, moderately strong-

ly narrowed in front, a trifle behind; base $\frac{3}{4}$ or more wider than apex; sides nearly evenly arcuate throughout; basal angles about right or a trifle obtuse; disk moderately convex, not punctate; middle line very fine, other impressions extremely vague or absent. *Elytra* only slightly (about $\frac{1}{6}$) wider than prothorax, very convex; humeri distinct, denticulate; sides straight, parallel or faintly *diverging posteriorly* for most of length, subapical sinuation and apices as in *12-striatus*; each elytron with 6 moderately deep, smooth, straight striæ as in *12-striatus*, 7th stria extremely faint; scutellar stria almost obsolete; intervals slightly convex, 3rd without dorsal punctures. Metepisterna and sides of metasternum very coarsely, first ventral coarsely, 2nd ventral and mesepisterna anteriorly much less distinctly punctate. Front tarsi ♂ about as in *12-striatus*, with 2nd joint about as long as wide. Length 7.5-8.5; width 3.1-3.6 mm.

HAITI: holotype ♂ (M. C. Z. no. 22025) and 19 paratypes from swamps north of Dessalines, Sept. 11; 3 paratypes from Trou Caïman, Nov. 15-20; taken under cover in and beside swamps.

Resembles *S. duodecimstriatus* (Chev.), to which it runs in Chaudoir's monograph (Ann. Soc. Ent. France (6) 2, 1882, pp. 485-), but relatively a little broader especially posteriorly, with shorter prothorax and more convex elytra, and with weaker æneous luster, characters which enabled me to distinguish the new species from *12-striatus* even in the field. The two occurred together at Trou Caïman. The 3rd interval of each elytron is 2-punctate in *12-striatus*, impunctate in *palustris*.

***Selenophorus flavilabris cubanus* n. subsp.**

S. flavilabris Darl. 1934, Psyche 41, 105 (not Dej.)

Very similar to true *flavilabris* Dej., of which I now have 171 specimens from Haiti and Jamaica (type locality: "Antilles"). Similar in variable, usually greenish or bluish, metallic color, highly polished surface, and impunctate base and foveæ of prothorax. Differs conspicuously in having the legs entirely testaceous; the femora are dark in true *flavilabris*. The Cuban subspecies averages a little smaller, but not sufficiently to be significant if it were

not for the difference in color of legs. Length 6.5-8.0; width 2.6-3.3 mm.

CUBA: holotype ♂ (M. C. Z. no. 22026) and 35 paratypes from Soledad, near Cienfuegos, various dates and collectors.

Bradycellus (Stenocellus) selleanus n. sp.

Form about average for genus; black, very polished, margins of elytra (especially apically) translucent testaceous; suture not pale; palpi, legs, base of mandibles, and base of antennæ testaceous, apex of mandibles and antennæ except basally darker. *Head* as usual in *Stenocellus*, about $\frac{3}{4}$ width prothorax, impressions deep; antennæ rather stout, 9th joint reaching about to base prothorax; mentum tooth acute. *Prothorax* subcordate, about $\frac{1}{4}$ wider than long; base about width apex; sides arcuate anteriorly, briefly but usually rather strongly sinuate before posterior angles; latter briefly right or slightly obtuse, more or less strongly denticiform; disk as usual; basal foveæ shallow, rather coarsely punctate. *Elytra* normal for genus, about $\frac{2}{5}$ wider than prothorax, not very elongate; no scutellar stria; other striae entire, impunctate; intervals slightly convex, polished, 3rd with single puncture on inner edge behind middle. Male front tarsi moderately dilated, biserially squammulose; middle tarsi slender, inconspicuously squammulose. Length 3.5-4.2; width 1.4-1.6 mm.

HAITI: holotype ♂ (M. C. Z. no. 22027) and 31 paratypes from La Visite and vicinity, La Selle Range, 5,000-7,000 ft., Sept. 16-23; 3 paratypes from Kenskoff, a few miles north of type locality, about 5,000 ft., Nov. 8; common under ground cover in cloud forest and damp ravines.

Comparable only with *Bradycellus circumdatus* Bates of Mexico (we have a small series from *Biologia* material), but smaller, much more polished, with sides of prothorax more briefly but much more strongly sinuate before base.

Pogonodaptus rostratus n. sp.

Form of *P. mexicanus* (Bates) (*piceus* Horn); polished piceous, more or less rufescent, margins of elytra (especially apically) testaceous; legs testaceous with dark knees; antennæ brownish, testaceous at base. *Head* of ♂ very

large, barely narrower than prothorax but appearing at least as wide; genæ subprominent, subtuberculate; mandibles long, not strongly arcuate; clypeus emarginate, subtuberculate each side; labrum deeply emarginate; frontal sulci very deep, much closer together (where most approximate) than to eyes; head in ♀ about $6/7$ width prothorax, with mandibles a little less prominent, genæ short and not prominent, frontal sulci much less approximate. *Prothorax* broadly cordate, $1/2$ or slightly more wider than long, much narrowed basally; base $1/10$ to $1/5$ narrower than apex; sides broadly rounded except very briefly sinuate before posterior angles; latter would be rounded except for small, obtuse prominence; disk about as in *mexicanus* except more depressed and roughened across base, with narrower posterior margin, and with anterior transverse impression more distinct, lying behind the (interrupted) anterior marginal line. *Elytra* about as in *mexicanus*. Measurements: large ♂ 8 by 2.5; small ♀ 7.2 by 2.3 mm.

HAITI: holotype ♂ (M. C. Z. no. 22028) and 40 paratypes from swamps north of Dessalines, Sept. 11; in loose soil and piles of trash near the water.

As compared with *mexicanus*, of which we have a fine series from Texas (Brownsville), Mexico (Vera Cruz), and Colombia (near Santa Marta), the ♂ of *rostratus* has more prominent mandibles and genæ and much more approximate frontal sulci (nowhere closer to each other than to the eyes in *mexicanus*). The thorax of the new species differs also, as noted in the description.

***Lebia haitiana* n. sp.**

Typical *Lebia* form; weakly shining; black, side margins of prothorax pale translucent testaceous; elytra testaceous with basal blotch (between 4th striæ), broad, slightly irregular post-median fascia (extending laterally to the marginal striæ), a broad sutural connecting stripe (constricted nearly to first striæ at basal $1/3$) between the basal and post-median marks, a very narrow apical sutural line, and a small spot near the outer apical angle of each elytron black or dark brown; lower surface black; legs testaceous; palpi brown with pale tips. *Head* about $4/5$ width prothorax; eyes very prominent; front longitudinally

rugulose; mentum tooth short, broadly rounded; palpi not thickened. *Prothorax* transversely quadrate, about $2/3$ wider than long, with anterior angles rounded, posterior bluntly right, preceded by a slight sinuation of the sides; explanate margins rather broad; disk moderately convex, irregularly (transversely at middle, sublongitudinally at sides) rugulose. *Elytra* wide, about $5/6$ wider than prothorax, moderately convex; striæ rather deep, impunctate, except 3rd with usual 2 dorsal punctures on each elytron; intervals somewhat convex, alutaceous. Posterior tarsi with 4th joint bilobed; claws each with 4 rather long teeth below. Length 5.3-5.7; width 2.6-2.8 mm.

HAITI: holotype ♂ (M. C. Z. no. 22029) from vicinity of Port-au-Prince, Oct. 6; 1 ♂ paratype from Poste Terre Rouge, 2,000 ft., Oct. 5; 1 ♂ paratype from Port-au-Prince, Jan. 1925, G. N. Wolcott, from André Audant. My two specimens were taken by sweeping vines along overgrown roadsides.

The pattern of the elytra resembles, at first glance, that of *Lebia fuscata* Dej., but closer examination shows that *haitiana* lacks the dark marginal streak which, in *fuscata*, extends forward from the post-median fascia on each side, while *fuscata* has no separate posterior-lateral spot. The two species are very differently sculptured. In Chaudoir's key, *haitiana* runs to the *analis* group (Bull. Soc. Nat. Moscow 44, 1871, part 1, p. 23), but neither *analis* nor any of the other species listed has the thorax uniform black (except for the margins) as in *haitiana*, nor does the pattern of the elytra of the latter coincide exactly with any of them.

***Lebia nigrata* n. sp.**

Lebia-like, but with very convex elytra; black, weakly shining, appendages and explanate margins of prothorax brownish. *Head* $6/7$ width prothorax; eyes prominent; front alutaceous, not rugulose, with punctiform median impression; mentum tooth short, broadly rounded; palpi rather short but not much incrassate. *Prothorax* about $3/5$ wider than long, transversely quadrate; anterior angles rounded, posterior right, with sides before them straight; explanate margins moderate; disk moderately convex,

alutaceous, faintly transversely strigulose. *Elytra* more than $\frac{4}{5}$ wider than prothorax, very convex but nearly normal in outline from above; striæ deep, impunctate, except 3rd on each elytron with 2 unusually coarse dorsal punctures; intervals moderately convex, alutaceous. Hind tarsus with 4th joint bilobed; each claw with 3 rather long teeth on inner edge. Length 3.6; width 1.9 mm.

HAITI: holotype ♂ (M. C. Z. no. 22030), unique, from hills south of Port-au-Prince (edge of Massif de la Selle), about 2,000 ft., Oct. 2; taken by sweeping path-side vines and weeds.

In Chaudoir's key this runs to *scitula* Chd. and allies (*l. c.*, p. 24), but is very much smaller than any of the species listed. It is probably actually more closely related to some of the very convex continental species such as *hilaris* Chd. and *granaria* Putz., but the uniform coloration and deep striæ distinguish it.

***Lebia gibba* n. sp.**

Of the same small, convex form as the preceding; rather shining blue, lower surface and appendages black. *Head* about $\frac{5}{6}$ width prothorax; eyes a little less prominent than in *nigrita*; front lightly alutaceous, not strigulose, with median puncture; mentum tooth short and broadly rounded; palpi rather short but not much incrassate. *Prothorax* transversely subquadrate, $\frac{2}{3}$ wider than long; anterior angles rounded; posterior angles almost right, sides before them straight but converging posteriorly; sides of base slightly oblique toward rear, so that angles are directed slightly backward; explanate margins moderate; disk very convex, shining, neither punctate nor alutaceous. *Elytra* about $\frac{3}{4}$ wider than prothorax, very convex, but with nearly normal marginal outline; striæ rather shallow, impunctate except for 2 rather small dorsal punctures on 3rd on each elytron; intervals slightly convex, rather shining, only very faintly alutaceous. Hind tarsi with 4th joint bilobed; each claw with 3 teeth. Length about 3.3; width 1.7 mm.

HAITI: holotype ♂ (M. C. Z. no. 22031), unique, from Hinche, Aug. 30, 1930, H. L. Dozier collector, from Mr. André Audant.

Much like the preceding (*nigrata*) in form, but differently colored, more shining, with somewhat shallower elytral striæ, and with somewhat differently formed prothorax, with much more convex disk.

Phlœoxena montana n. sp.

Form as in normal Phlœoxena except elytra more oval and much more convex; head and prothorax moderately shining, elytra duller; brownish piceous above and below, epipleuræ of elytra and last ventral segment pale; femora testaceous, tibiæ a little browner; palpi and antennæ slightly brownish testaceous. *Head* about 85/100 width prothorax, normal for Phlœoxena except eyes a trifle less prominent than usual; front alutaceous, with 2 anterior and single median impressions weak; antennæ rather stout, 8th joint reaching about to base prothorax; mentum tooth rounded at apex. *Prothorax* 1/6 or 1/7 wider than long, narrowed behind; base truncate, a little narrower than apex; sides weakly arcuate anteriorly, straight and converging in about posterior 1/2; posterior angles obtuse, somewhat rounded; anterior angles somewhat produced, narrowly rounded; lateral margins narrow, without setæ; base margined, apex indistinctly so; disk convex, finely alutaceous; middle line well impressed except at ends, transverse impressions and basal foveæ almost obsolete. *Elytra* broadly oval, with reduced, broadly rounded humeri; margins, marginal setæ, and apical sinuato-truncation normal; disk convex, rather strongly alutaceous; striæ faint, broad, and vaguely defined, about as in *schwarzi* Darl.; each 3rd interval with 2 dorsal punctures about 2/5 and 1/10 from apex, usual anterior puncture lacking, extreme basal foveolate puncture (contiguous to margin) present. *Metepisterna* very short, outer edges no longer than anterior; inner wings atrophied. Body below alutaceous, sides of abdomen somewhat wrinkled. Hind tarsi normal, *i. e.* with 4th joint a little shorter than but otherwise similar to third; claws slender and rather elongate, each with 3 teeth on inner edge, outer tooth scarcely outside of middle, so apex of claw is long, slender, and simple. Male front tarsi very weakly dilated, each with 3 joints biserially squammulose; middle

tarsi not modified; last ventral with 1 (δ) or 2 (φ) setæ each side. Length 3.8-5.0; width 1.6-2.0 mm.

HAITI: holotype δ (M. C. Z. no. 22032) and 11 paratypes from Mt. La Hotte, on and near summit (probably not below 7,000 ft.), Oct. 16-17; in leaf mold, moss, and rotting wood in damp forest.

Similar in color to *P. schwarzi* Darl., but differing from it, and I think from all other known *Phlæoxena*, by the loss of wings and consequent modification of elytra.

Apenes apterus n. sp.

Form as usual in *Apenes s. s.*, *sinuata* group; moderately shining purplish bronze, humeri with poorly defined brown spots, outer margin of elytra vaguely and irregularly brownish; lower surface piceous; appendages brown. *Head* large, about $\frac{6}{7}$ width prothorax, but with eyes less prominent than usual; front finely alutaceous, finely and sparsely punctulate, not strigulose; antennæ rather short, middle joints scarcely longer than wide. *Prothorax* $\frac{1}{4}$ wider than long, subcordate; sides arcuate anteriorly, virtually straight and converging *or* slightly sinuate before posterior angles; latter either almost obliterated or very minutely subprominent; disk finely alutaceous, without evident punctulation, and with faint, sparse, transverse wrinkles. *Elytra* $\frac{1}{2}$ wider than prothorax; humeri about as in winged species; striæ moderate, not punctate; scutellar stria present but rather variable; intervals slightly convex, lightly alutaceous, 3rd with 2 conspicuous punctures, at about $\frac{1}{3}$ and $\frac{2}{3}$ of length. *Metepisterna* with outer edges about $\frac{1}{2}$ longer than anterior, shorter than in winged species; inner wings atrophied. Last joint labial palpus δ not nearly so dilated as usual in genus, scarcely wider than in φ , with apical much shorter than inner margin; last ventral with 2 setæ each side in both sexes. Length (to apex elytra) 6.5-7.0; width 2.5 mm. or slightly more.

JAMAICA: holotype δ (M. C. Z. no. 22033), and 2 φ φ paratypes from main range Blue Mts., 5,000-7,000 ft., Aug. 17-19; under stones along the trail in the forest.

Differs from the other West Indian species of the *sinuata* group (*delicata* Darl. etc.) in lacking a subapical pale fascia, and in the atrophy of the wings.

Apenes ovalis n. sp.

Broad, with elytra more oval and more convex than usual; shining piceous without pale markings above; appendages and elytral epipleuræ reddish testaceous. *Head* large, a trifle over $\frac{3}{4}$ width prothorax; eyes but little prominent; front shining, very faintly alutaceous and punctulate, not strigose; antennæ rather short, middle joints a little longer than wide. *Prothorax* broad, $\frac{2}{5}$ to $\frac{1}{2}$ wider than long; sides broadly rounded, almost evenly rounded into base except for vague lobe just behind posterior seta each side; base also vaguely lobed; disk moderately convex, shining, very faintly alutaceous, faintly transversely wrinkled near middle. *Elytra* broadly oval, $\frac{1}{2}$ wider than prothorax; striæ moderate, impunctate; scutellar stria rather short; intervals flat or faintly convex, polished, 3rd with 2 strong punctures. *Metepisterna* with outer edge about $\frac{1}{2}$ longer than anterior, shorter than in winged species; inner wings reduced to minute vestiges. Male with apical joint labial palpus much less dilated than usual, apex scarcely more than $\frac{1}{2}$ long as inner edge, scarcely wider than in ♀; ♂ with 1, ♀ with 2 setæ each side last ventral. Length (to apex elytra) 8.0-9.5; width 3.4-3.9 mm.

HAITI: holotype ♂ (M. C. Z. no. 22034) and 55 paratypes from La Visite and vicinity, La Selle Range, 5,000-7,000 ft., Sept. 16-23; in loose leaf mold and under other cover in wet cloud forest.

The wide, oval, convex elytra, and shining, unspotted surface give this *Apenes* a unique appearance which distinguishes it easily from the preceding (*aptera*), which is the only other species of the genus known to me from the West Indies in which the wings have atrophied.

Eucærus haitianus n. sp.

Stout, moderately convex; black; head and prothorax alutaceous, elytra shining, subiridescent; antennæ with 6 proximal joints, brownish, 7th more or less bicolored, 4 distal whitish; palpi, labrum, and legs brown, latter sometimes more or less testaceous. *Head* as in *insularis* Darl., with middle antennal joints about 3 times long as wide. *Prothorax* broadly cordate, slightly to distinctly more than

$\frac{1}{2}$ wider than long; sides briefly but distinctly sinuate before minute, somewhat obtuse basal angles; base lobed at middle, slightly or (usually) distinctly sinuate each side. *Elytra* with rather fine, entire, impunctate striæ; intervals barely convex; 3rd stria with fine setigerous puncture about $\frac{1}{5}$ from base, 2nd with similar punctures near middle and a little before apex. Inner wings reduced as usual. Male with front tarsi slender, inconspicuously squammulose; ♂ with 1, ♀ with 2 setæ each side last ventral. Length (to apex elytra) 3.6-4.6; width 1.6-2.1 mm.

HAITI: holotype ♀ (M. C. Z. no. 22035) and 17 paratypes, mostly ♀♀, from Etang Lachaux, Oct. 26-27; taken by raking leaves from shady places on the bank into the water.

This species is closely allied to the Cuban *insularis* Darl. (Psyche 41, 1934, p. 120), of which I took 20 additional specimens at the type locality (Soledad), Aug. 2-12, 1934, but *haitianus* differs constantly in the brown labrum (testaceous in *insularis*) and in having a wider prothorax with posterior angles better defined and sides of base sinuate.

***Pentagonica flavipes picipes* n. subsp.**

Structurally the same as typical *P. flavipes* (Lec.) of North America and Cuba (we have 33 specimens from Soledad, near Cienfuegos) and similarly uniform piceous black above, with fine elytral striæ, but with legs piceous or dark brown instead of testaceous or very pale brown and with labrum and base of antennæ somewhat darker also. The latter, however, are rather variable in true *flavipes*. The difference in color of legs is conspicuous even in the field, to the naked eye.

GREATER ANTILLES except CUBA: Jamaica: holotype ♀ (M. C. Z. no. 22036) from Kingston, Aug. 27; 1 paratype from Ocho Rios, Aug. 24; 5 paratypes from Port Antonio, March, E. A. Wight collector. Haiti: 1, not a type, from Miragoane, Oct. 30. Puerto Rico: 1, not a type, from S. T. Danforth.

***Galerita montana* n. sp.**

Rather stout and convex; elytra costate; black or piceous, appendages dark, with 7 outer joints of antennæ dull

rufous. *Head* about $\frac{3}{4}$ width prothorax; eyes scarcely prominent; genæ rounded, nearly wide as eyes; front and vertex rugosely punctate except for small smooth area at middle anteriorly. *Prothorax* between subquadrate and subcordate, as wide to $\frac{1}{10}$ wider than long, somewhat narrowed basally; sides strongly arcuate anteriorly, rather broadly sinuate before right or slightly acute, but narrowly rounded, posterior angles; disk moderately convex, rugosely punctate; middle line fine, transverse impressions not sharply defined; basal foveæ small and deep. *Elytra* rather broadly oval, with broadly rounded, somewhat narrowed humeri; sides just behind humeri more or less convex in outline, rarely almost straight, never subsinuate; apices strongly truncate, each subemarginate, with outer apical angles well defined, though obtuse; disk rather convex; each elytron with 9 moderate primary costæ plus a rather elongate scutellar costa (comparable to a scutellar stria in position); each primary intercostal interval with 2 much finer costæ, except only 1 secondary costa at suture and none, or only faint traces, in marginal interval; surface between costæ finely transversely rugulose. *Metepisterna* about $\frac{1}{2}$ longer than wide; inner wings vestigial. Length 15.5-18 (to apex elytra, 14-16); width 5.2-6.2 mm.

HAITI: holotype ♂ (M. C. Z. no. 22037) and 14 paratypes from vicinity of La Visite, La Selle Range, 5,000-6,000 ft., Sept. 16-23; under stones in damp places on high slopes, but not on the plateau (except just at the edge) and not in cloud forest.

Somewhat similar to *Galerita nigra* Chev. of Mexico, but with outer apical angle of elytron much better defined and differing slightly in other ways. Probably more closely related to the Haitian *striata* Klug, of which we have a series from various localities below 5,000 ft., but larger and broader, with relatively slightly broader prothorax, and with elytra more evenly oval, without the post-humeral subsinuation of *striata*.

***Pseudaptinus marginicollis fumipes* n. subsp.**

Structurally the same as typical Cuban *marginicollis* Darl. (*Psyche* 41, 1934, p. 126) except that the prothorax is slightly broader anteriorly in the new subspecies; color

also similar except the legs either entirely (7 specimens) or with only the tibiæ and apices of the femora (2 specimens) brown or blackish, while in typical *marginicollis*, of which I now have 28 specimens from the type locality (Soledad, near Cienfuegos, Cuba), the legs are always entirely pale testaceous.

HAITI: holotype (M. C. Z. no. 22038) (with legs entirely dark) and 4 paratypes (3, legs entirely dark; 1, with only tibiæ and apices of femora dark) from Ennery, Sept. 6-11; taken from piles of old flood debris beside the river; additional paratypes: 1, swamps north of Dessalines, Sept. 11; 1, Miragoane, Oct. 30; 1, Camp Perrin, Oct. 9; 1, Etang Lachaux, Oct. 26.

Zuphium haitianum n. sp.

Normal *Zuphium* form; piceous, a little more brownish on elytra, suture and medio-basal area of elytra and small vague sublateral stripes of prothorax usually faintly reddish; abdomen (irregularly) and legs testaceous; mouth parts including labrum, and antennæ rufo-testaceous. *Head* slightly (about 1/10) narrower than prothorax, shaped as in *cubanum*; front finely, not closely punctulate, finely alutaceous, more distinctly so on vertex; antennæ with joints 5 to 8 twice or slightly more times long as wide. *Prothorax* barely (not over 1/10) wider than long, sides of apex slightly less oblique than in *cubanum* (*i. e.*, prothorax more square shouldered); sides broadly arcuate anteriorly, strongly sinuate before the right or slightly acute posterior angles; disk moderately convex; middle line sharp, anterior transverse impression obsolete, posterior rather vaguely impressed; basal foveæ deep, rounded; whole pronotum finely, closely punctate and finely alutaceous. *Elytra* about 7/10 wider than prothorax, a trifle shorter and wider posteriorly than in *cubanum*; striæ moderate; intervals slightly convex, rather finely roughened and alutaceous. Length (to apex elytra) 4.0-4.7; width 1.4-1.6 mm.

HAITI: holotype (M. C. Z. no. 22039) and 9 paratypes from Etang Lachaux, Oct. 26-27; taken by raking dead leaves from shady places into the water.

Duller and much more finely punctate on head and prothorax than *cubanum* Liebke, of which we have 29 speci-

mens from Soledad, near Cienfuegos, Cuba. In Liebke's key to the American Zuphium (*Revista Ent.* 3, 1933, pp. 461-) *haitianum* runs to *columbianum* Chd., but the latter (which I have not seen) is evidently a pale species with only the head dark, and color is a rather constant character in this genus.

***Pseudomorpha caribbeana* n. sp.**

Slender, parallel, very convex (even more so than in *angustata* Horn); castaneous, lower surface (except abdomen) and appendages more rufescent; whole upper surface finely alutaceous under high power, merely silky under lower power, moderately shining. *Head* 7/10 width prothorax; front with transverse row of moderate, setigerous punctures between eyes, otherwise very finely, sparsely punctate; pre-ocular lobes moderate, more explanate than in *angustata*; clypeal suture very fine; antennæ slender, reaching just beyond anterior coxæ. *Prothorax* 2/5 wider than long; apex truncate except anterior angles slightly prominent; sides broadly, almost evenly arcuate, with fine margins; basal angles rounded; apex margined, base not; disk finely, sparsely punctate and pubescent; middle line excessively fine; base not impressed, baso-lateral impressions completely absent. *Elytra* probably no wider than prothorax (slightly distorted by pin), elongate; sides parallel; apices rounded-truncate; suture not elevated; each elytron with 9 rows (beside the marginal fringe) of setigerous punctures, no special rows coarser than others; punctures so widely spaced in the rows that at first glance the elytra appear punctured at random; surface otherwise impunctate. Length 7.2; width 2.7 mm.

HAITI: holotype, probably ♀ (M. C. Z. no. 22040), unique, from Port-au-Prince, May, 1927, G. N. Wolcott collector, received from Mr. André Audant.

This is the first species of subfamily Pseudomorphinæ to be known from the West Indies. It is a very distinct species. In Notman's key to the species of *Pseudomorpha* (*Proc. United States Nat. Mus.* 67, 1925, Art. 14, pp. 14-15) the Haitian species runs to *confusa* Notman, but, as compared with the description of *confusa*, *caribbeana* is smaller (*confusa*, 10.25 mm.), much more convex, with relative-

ly wider head and narrower prothorax, and differs somewhat in other ways. Notman described *confusa* from a unique ♀ from the British Museum supposed to come from Australia; since *Pseudomorpha* is otherwise entirely confined to a small part of America, however, the Australian record is probably erroneous.



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